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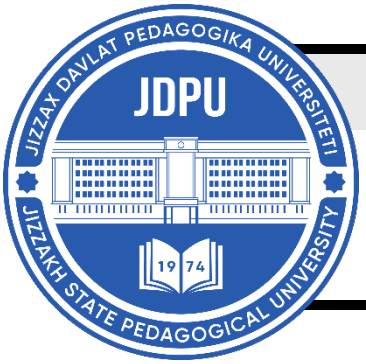

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DRAWING UP A MAP OF THE MOST IMPORTANT TOURIST SITES OF THE CITY OF TASHKENT

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ABOUT ARTICLE

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Abstract: Promising possibilities of solving the problems of designing public spaces in Tashkent in the GIS environment are shown. It is shown how with the advent of computer technologies and, in particular, geoinformation systems, the situation in urban planning has changed qualitatively, which led to the creation of urban planning documentation of a new generation, the approach to design itself has fundamentally changed.

Currently, new objects of public spaces of great interest in terms of tourism of the city have appeared and are appearing in Tashkent. The task was set to draw up a tourist map of public spaces in Tashkent, taking into account the new objects that have recently appeared in the city, which make up the databases of spatial GIS data. The objects newly entered into the map are listed, their main characteristics are given and a map was developed with the inclusion of these objects.

INTRODUCTION

It is known that the process of urban planning [1] and territorial management [2] is very complex. Making the right decisions requires taking into account many factors from different branches of knowledge, and not just to take them into account, but to consider them in a relationship that is often not obvious. Therefore, not only architects-planners work in urbanism, but also in the development of urban planning documentation [3,4]. Various specialists participate: architects, transport workers, engineers in engineering systems, geographers, geologists, economists, etc.

Urban planning documentation created before the advent of computer technology had a number of significant drawbacks, the main of which are:

- insufficient information security of projects;
- a huge format of drawings, made, as a rule, in one copy;
- difficulty in understanding some Master Plan drawings
- the impossibility of operational proofreading of project proposals.

These negative aspects made it so difficult to effectively use urban planning design documentation that it was not actually used by the services of the city (district, region) in their daily work. This, in turn, led to numerous urban planning mistakes, the results of which we reap in almost all cities of the country.

The advent of computer technologies [5] and, in particular, geoinformation systems, has qualitatively changed the situation in urban planning. This led to the creation of a new generation of urban planning documentation [6], and the approach to design itself has radically changed. At the same time, GIS technologies [7] can be effectively applied to the entire hierarchical range of urban planning design documentation: from settlement schemes to building projects.

The very process of creation and the very structural construction of urban planning design documentation obviously testifies to the effectiveness of using GIS technologies.

The planning structure of the city provides for the division of the territory into various functional zones, such as residential, commercial, industrial, recreational, etc.

This makes it possible to effectively organize the use of land resources and ensure the convenience and accessibility of various types of activities for citizens.

When solving planning tasks, the following requirements must be taken into account:

1. Creating a comfortable environment for living and recreation

The planning structure of the city is aimed at creating a comfortable environment for the life and recreation of citizens. It provides for the placement of parks, squares [8,9], sports

grounds, and also ensures the accessibility of cultural and entertainment facilities. Such an environment contributes to the improvement of the physical and psychological well-being of citizens, as well as contributes to the formation of an active and healthy social life.

2. Preservation and improvement of the environment.

The planning structure of the city takes into account environmental features and strives to preserve and improve the environment [10,11]. It provides for the placement of green spaces, landscaping of building facades, the creation of ecological corridors and the protection of natural resources. Such measures contribute to improving air quality, reducing noise and creating a pleasant atmosphere in the city.

Thus, the planning structure of the city plays an important role in creating a convenient and comfortable environment for the life of citizens. It contributes to the development of the economy, social sphere and culture of the city, as well as ensures the preservation and improvement of the environment.

The comprehensive program "Digital Tashkent" provides for the transition to the "digital rails" of the main socio-economic relations in the life of the capital [12]. One of the main tasks of Digital Tashkent is the creation of a Geoportal of the city of Tashkent, which many specialists are currently working on [13].

Recently, aerial photography of the territory of Tashkent was carried out in accordance with the procedure established by law and orthophotoplanes were prepared (orthophotoplane is a digitally transformed image of the area (object) created from overlapping source photographs) of high resolution in the WGS—84 coordinate system. Also, based on these orthophotolans, an accurate detailed digital map of Tashkent can be created with a specific display of infrastructure facilities and the road network: streets, squares, driveways, dead ends, and other public spaces.

SELECTION OF OBJECTS AND THEIR CHARACTERISTICS

Currently, new public space facilities are appearing in the city [14]. of great interest from the point of view of tourism of the city. We have created a map of the city's public spaces, taking into account the new objects that have recently appeared in the city, which make up GIS spatial databases [15].

Let's list some of the most important objects from the point of view of tourism, which we have included in the databases of public spaces in Tashkent:

Object No. 1:

Magic City is a project that has no analogues in Central Asia in the center of Tashkent (Fig.1). The largest territory of magic and entertainment for the whole family, where neither adults nor children will definitely be bored.

The streets of the park are made in the architectural styles of world cities – you can visit Paris, Barcelona, London, Berlin and others without buying a plane ticket! There are also many shops, cafes, restaurants for every taste on the territory.

Special attention is paid to creating all conditions for people with disabilities, including paths for the blind and ramps for people in wheelchairs. Another advantage is the bus running around the city, which will take you to the park. Golf cars circle the vast territory of Magic City itself to take people from the parking lot to the right place in the park.

Fig.1. Magic City — in the center of Tashkent.

In Magic City, on a territory with a total area of more than 20 hectares, there are unique objects:

- The first aquarium in Central Asia
- Modern attractions from Italy and Germany - All-season family entertainment center
- A children's country where a child can master a dream profession
- Innovative laser cinema

- Amphitheater in the style of the Roman Colosseum
- A fabulous castle with towers 60 meters high
- Fountain with an area of 8,500 sq.m.

Object No. 2:

The Alisher Navoi National Park of Uzbekistan is the largest park in Tashkent (Fig.2). It is located in the city center, in the Chilanzar district

The park was founded by the youth of Tashkent on the site of the quarries of the old brick factory by the khashar (people's construction) method in 1932 and in Soviet times was called the Central Park of Culture and Recreation named after the Lenin Komsomol. Now this park is named after the great educator and poet Alisher Navoi. The area of the park is now 65 hectares, the area of the lake and the water channels of the park is 9 hectares.

There is an artificial lake on the territory of the park. There are beaches on the eastern shore of the lake. There are many attractions and cafes in the park.

Until September 2017, the Tashkent Children's Railway operated on the territory of the park.

Fig.2. Alisher Navoi National Park of Uzbekistan

In the center of the park on a hill there is a monument to the great Uzbek poet of the XV century Alisher Navoi, the monument is located under an openwork domed rotunda. A number of buildings and structures for various purposes are located on the territory of the park: the Oliy Majlis (Parliament of Uzbekistan), the Navruz Wedding Palace, the Navruz restaurant, the Istiqlol concert hall, an art gallery, the main stage of festive celebrations, the medieval Abulkasym madrasah (XVI century).

Object No. 3:

The Hazrati Imam Ensemble is a religious complex in Tashkent (Fig.3). The Hazrati Imam Ensemble (Uzbek: Hazrati Imom majmuasi) is a religious complex in Tashkent. The ensemble was erected near the grave of the imam of Tashkent, a scientist, an expert on the Koran and Hadith, one of the first preachers of Islam in Tashkent, poet and artisan Hazrati Imam (his full name is Abu Bakr ibn Ismail al-Kaffal al-Shoshi). According to historical sources, he was also a master at making locks and keys, for which he received the nickname "Kaffal", which means "Lockmaker", spoke 72 languages and translated the Old Testament (Torah) into Arabic.

In addition to the buildings, there is a library of Oriental manuscripts and the Quran of Caliph Uthman. There are 353 large parchment leaves in the Quran. At first, the Koran was in Medina, then in Damascus and Baghdad. Tamerlane transported the

Fig.3. Hazrati Imam Ensemble

Koran from Baghdad to Samarkand. In 1869, the Quran of Uthman was taken to St. Petersburg, where its authenticity was proved. From there, the Koran was transferred to Ufa, and after that, Usman's Koran was transported to Tashkent.

The Quran of Uthman, kept in Tashkent, is the only original manuscript of the Quran that has survived. This is evidenced by the certificate issued by the International Organization UNESCO on August 28, 2000.

The construction of the Hazrati Imam Ensemble was completed in 2007.

Object No. 4:

The Sheikhantaur Ensemble is an architectural complex, the center of which is the Mausoleum of Sheikh Hovendi at-Tahur (Sheikhantaur) (Fig.4). According to written sources,

in the V—VIII centuries, the local population practiced Zoroastrianism on the territory of Chacha. There were several houses (pools with water) on the territory occupied by the Sheikhantaur architectural complex, since water was also one of the images of Zoroastrianism worship.

According to legend, Sheikh at-Tahur, having traveled to the city of Turkestan, where he comprehended the mystical philosophy of Ahmad Yassawi, learning patience and meekness, returned to Tashkent after many years of wandering and settled at the holy

Fig. 4. Sheikhantaur Ensemble

spring, about which a beautiful legend was composed in ancient times. According to this legend, the water of "eternal life" gushed from this spring, and on its shore, in the shade of trees, Iskander the Two-Horned (Iskander Zulkarnai) himself rested, that is, Alexander the Great. According to legend, in pre-Islamic times, this key had a pagan temple of Water and Fire. Sheikh at-Tahur (Havendi Tahur from Bogustan), who died in 1355, bequeathed himself to be buried here. For a long time, the so—called Iskander saurs grew near his grave - thousand-year-old trees that had lost their foliage and were almost petrified from old age. The trunk of one of these trees has been preserved to this day inside the mausoleum of Sheikhantaur, near his grave.

Object No. 5:

The Gafur Gulyam Park of Culture and Recreation is a park in Tashkent, the second largest park in the capital of Uzbekistan after the Alisher Navoi National Park.

Fig.5. Gafur Gulyam Park of Culture and Recreation

The park has many attractions, including a Ferris Wheel, as well as a small zoo. There are two artificial lakes in the park, fed by the water of the Ankhor Canal. The small lake, with an island in the middle, is popularly nicknamed "Bagel" because of the similarity in shape to this bakery product. Equipped beaches and a boat and catamaran rental point are located near the large lake. During the football matches in the Bunyodkor Park stadium located next to the park. Gafura Gulyama is closed to the public in order to preserve cleanliness and order in it.

Object No. 6:

New Uzbekistan Park— one of the largest parks of culture and recreation in Uzbekistan (Fig.6). "Yangi Uzbekistan" is a new, completely huge — five times larger than the Tashkent City Park, a park located in the new part of Tashkent. More recently, the capital has expanded decently — and the territory of the park, which used to be the Kibrai district, is now part of Mirzo-Ulugbek.

Fig.6. New Uzbekistan Park

Object No. 7:

Tashkent City Park is a city park in the center of Tashkent, the largest recreational park area in Uzbekistan. It is located on the territory of the Tashkent City International Business Center.

Yes, this is exactly the park where the fireworks were given on Independence Day. By the way, on September 1, despite the fact that only a third of the total territory was open, about 100,000 people gathered here. Yangi Uzbekistan is a new, completely huge park — five times bigger than Tashkent City Park, a park located in a new part of Tashkent. More recently, the capital has expanded decently — and the territory of the park, which used to be the Kibrai district, is now part of Mirzo-Ulugbek.

Fig.7. Tashkent City Park

Object No. 8:

Tashkent Zoo. In 1994, by decision of the Government of Uzbekistan, construction of a new zoo with enclosures for landscape animals was started on part of the territory of the Tashkent Botanical Garden, and in 1997 it was put into operation (the botanical garden lost a quarter of its territory). The new Tashkent Zoo occupies an area of 22.7 hectares. Currently, the Tashkent Zoo contains over three thousand animals and birds of 600 species.

The Tashkent Zoo was organized in 1924 on part of the territory of the former country cottage of the Governor-General of Turkestan (Fig.8). Prior to that, there was a small menagerie at the Governor-General's dacha, which was part of the art museum located on the territory of the dacha. The zoo occupied an area of about 3 hectares.

By the end of the 1940s, the exposition of the Tashkent Zoo consisted of over 200 species of various animals and birds.

Since 1998, the Tashkent Zoo has been a member of the international organization EARAZA (Euro-Asian Regional Association of Zoos and Aquariums).

Fig.8. Tashkent Zoo

Object No. 9

Chorsu Bazaar is one of the largest bazaars in Uzbekistan and Central Asia, located in the old part of Tashkent called "Eski Shahar", on Navoi Street in the Almazar district. Chorsu Bazaar was known in the Middle Ages and was of great importance on the road of the Great Silk Road.

In the central part of the ceiling of the bazaar, covered with ornaments, there is a monumental domed structure with a diameter of about 300-350 meters — a winter

Fig.9. Chorsu Bazaar

three-tiered bazaar building with an elevator system. On the lower level there are basement corridors with numerous utility rooms. There are counters with goods on the middle and upper floors. The shopping malls in the bazaar are divided by the types of goods sold on them: vegetables, fruits, nuts, oriental sweets, spices, cereals. Separate pavilions have been allocated for clothing and household supplies

Object No. 10.

Sayilgoh Street (Broadway) is one of the most famous tourist streets in Tashkent (Fig.10). It is closed from car traffic, which is why locals and visitors like to walk here so much. There are shops and cafes on both sides of Sayilgoh. In the former, you can buy anything from books to clay figurines.

Fig.10. Sayilgoh Street (Broadway)

MAKING A MAP OF THE MOST IMPORTANT OBJECTS

Here is a map that we have compiled on a scale of 1:100,000, including the objects described above. Tashkent city consists of 12 districts. When drawing up the map, we tried our best to place objects of public spaces of the city with the involvement of all districts of the city. Each area of the city is interesting in its own way. For example, mosques, complexes of buildings associated with the religion of Islam, the remains of the fortress wall of Tashkent, 12 gates of the city are located in the old city part of the city (Shaikhantakhur, Almazar, Uch-Tepinsky districts). The Yunus-Abad district has a zoo, a botanical garden, a memorial to the victims of repression, the Assumption Cathedral in the Mirabad district, a Hospital market, a Catholic Church in the Yakka-Sarai district, etc.

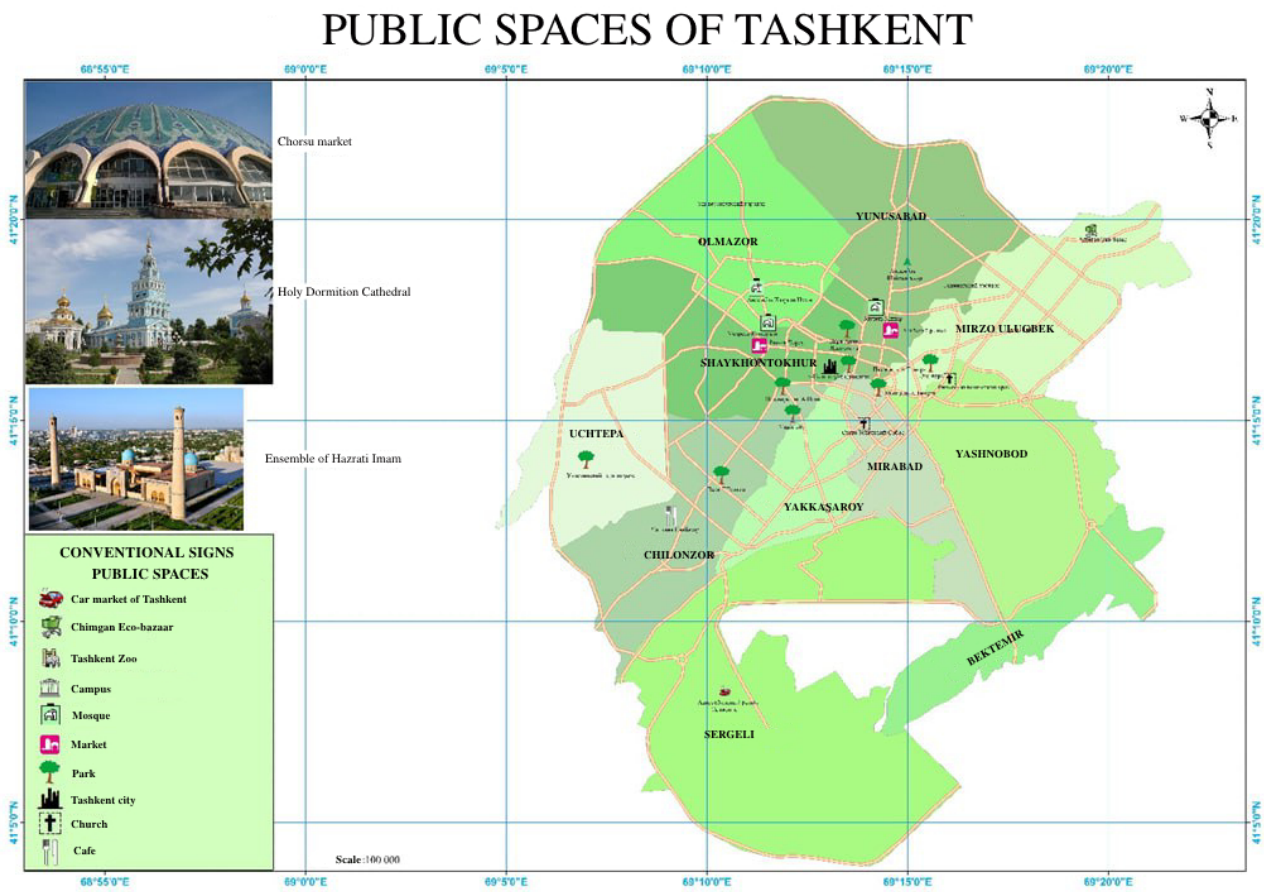

Fig.11. Map of public spaces in Tashkent

The descriptions of the objects and the compiled map will certainly serve to increase the tourist flow to Tashkent.

CONCLUSION

The theoretical and methodological foundations of geoinformation support of public spaces of the city are analyzed. The structure of GIS and the possibilities of using GIS technologies in the design and digital mapping of public spaces of the city are described in detail.

The sights of the city are described (photos, characteristics, historical references). It is shown that being a modern city, Tashkent has retained its national flavor. Illustrations of mosques, madrassas, churches, etc. are shown next to modern buildings such as the metro, TV tower, Humo Arena, hotels. A copy of the Koran written in the 7th century is kept in one of the mosques. Illustrations of various public spaces of the city are given.

The issues of considering GIS of Tashkent public spaces as a tool for solving urban environment design problems are analyzed. The fundamental possibility of solving the problems of designing public spaces in a GIS environment is shown. For this purpose, a cartographic framework and spatial GIS databases of Tashkent public spaces have been developed.

A map of public spaces in Tashkent has been created, including parks, squares, ancient monuments and modern unique objects.

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