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## EVOLUTION OF SAMARKAND CITY GENERAL PLANS

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**Annotation:** The article analyzes the historical development of the city of Samarkand and the peculiarities of the development of the general plan of the city. Features of the planning organization of the city are revealed, where specialists should take into account the peculiarities of socio-economic development, natural and climatic conditions, population forecast and measures for the development of transport and social infrastructure of the city of Samarkand. As well as a comprehensive program of tourism development with a unified system of tourist concentration zones united by transport routes. The General Plan envisages places of possible placement of such objects without prejudice to the rich historical and cultural heritage of the city. In fact, any construction or reconstruction of existing buildings in the city should be carried out in accordance with the general plan.

**Keywords:** Samarkand, urban settlement, general plan, urban development.

### Introduction.

Samarkand, of all the historical cities in the world, has always had a special appeal due to its central position on the legendary Silk Road, an early and major crossroads between East and West. It is the second most populous city in Uzbekistan (after Tashkent). Samarkand is located in a vast oasis in the Zarafshan River valley in what is now southeastern Uzbekistan. In terms of urban planning analysis, Samarkand serves as a good example of a type of city with an ancient history. Being one of the oldest centers of civilization in Central Asia, Samarkand was inscribed on the UNESCO World Heritage List at the 25th session in 2001, the historical center of the city was inscribed on the World Heritage List of this organization in the nomination "Samarkand - Crossroads of Cultures". The mentioned list includes the archaeological city of Afrosiab, the old Temurid city and the European part of the city, which belongs to the period of annexation of Central Asia to Russia. Construction management envisages control of construction processes in historical territories and preservation of the historical appearance of the city. The Master Plan provides for possible locations for such facilities without compromising the rich historical and cultural heritage of the city. But, the city needs a master plan to avoid negative consequences of construction works and to preserve historical monuments protected by UNESCO. After all, any construction or renovation of existing buildings in the city must be done in accordance with the master plan.

### Research methods and discussion.

The history of urban planning of Samarkand is set forth in written sources since ancient times. For example, in the 10th century B.C. the holy book of our ancestors Avesta contains legends about rectangular and square castle-cities. Subsequent information can be found in the historical and geographical sources of the ancient Greeks and Romans, such as Strabo, Arrian Flavius, Quintus Curtius Rufus, Plato and others, with whom Alexander the Great and the Greco-Roman culture as a whole followed. Ancient China and India also have written sources dedicated to our country's first cities. The main news about our urban planning in the Middle Ages is related to the penetration and spread of Islam in our country. If it is necessary to recognize scientific works of the first Arab historians, geographers such as Ibn Haukal, Tabari, Muqaddas, Ibn Battuta and others, great scientists of our country such as Farabi, Narshahi, Bayhaqi, Beruni, Ali Yazdi, Salahiddin Tashkandi. In the late XIX - early XX centuries, special works on our urban planning appeared. Scientific activity in this field was first reflected in the works of such Russian scientists as V.L. Vyatkin, V.V. Bartold, M.E. Masson. Later, in the times of the former USSR, such scientists as M. Saidjanov, S. Polupanov, B. Zasyipkin, V. Lavrov, L. Rempel, V. Nielsen, G. Pugachenkova, V. Voronina, M. Bulatov, L. Mankovskaya, P. Zokhidov conducted a study of

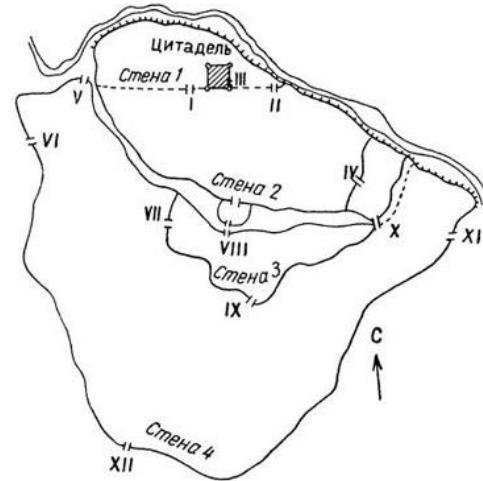
the history of our urban planning. Thus, by the second half of the twentieth century it became possible to study the history of urban planning in Uzbekistan, including Central Asia, from the most ancient times to special periods [1].

Fully reflecting the evolutionary development of urban planning in Samarkand are as follows:

#### ***Urban development in the early and middle ages.***

Samarkand is a late medieval extension of a settlement north of the present city called Afrasiab, which lay on the banks of the Siab, the “black river”. A huge archaeological area to the northeast of the present city, covering about 220 hectares, is still known by that name. It still remains largely unexcavated. Afrasiab was the ancient capital of Sogdiana, one of the eastern satrapies of the Achaemenid Persian Empire conquered by Alexander the Great in the fourth century BC.

The city, described by 10th-century Arab travelers, was a major manufacturing and commercial center consisting, like other urban settlements in Central Asia, of three well-defined parts: an ark, or district, containing a high citadel, a fortress that commanded the city and was protected by ravines facing the river, high walls, and a moat; below, the walled city, called the shahristan, with its representative and aristocratic quarter and the Friday Mosque, which expanded several times, as may be inferred from the two circumferences of the city walls; and beyond the shahristan, the rabat, or suburb, containing the bazaars, baths, caravanserais, workshops of artisans, especially ceramists, for whom the city was well known, and perhaps the new Friday Mosque [1].



**Fig. 1. Samarkand. Afrasiab settlement, 10th century: I-IV, VIII-X-gates, V-Bukharian, VI-Naubekharian, XI-Chinese, XII-Kesh.**

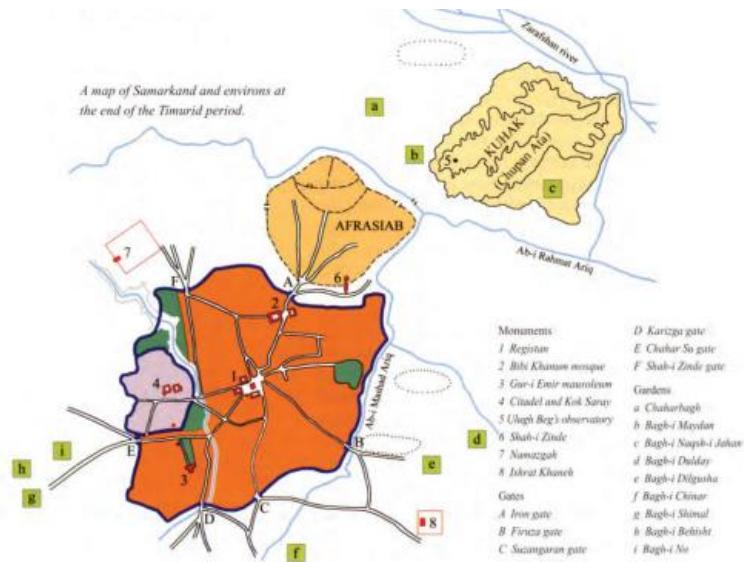
**(Source:**

[https://east.totalarch.com/universal\\_history\\_of\\_architecture/central\\_asia\\_9\\_10\\_century](https://east.totalarch.com/universal_history_of_architecture/central_asia_9_10_century))

Eventually, in the eleventh century, a new circular fortification was built to protect the Rabat. Water flowed into the city through a network of lead-lined canals, feeding the residential neighborhoods and gardens through a system of outdoor pools. The streets were said to have been paved with stone, and cleanliness and order were maintained by the inhabitants of each neighborhood. Ordinary houses were built of sun-dried bricks, richer ones of burnt bricks, and jewelry of high quality was found on important buildings. By the end of the eleventh and beginning of the twelfth centuries, the city began to spread into the territory of modern Samarkand, becoming the southern extension of Afrasiab [1].

#### ***Urban development in the Timurid period.***

Timurid Samarkand was extensively renovated and expanded, and its center was moved to the south of the abandoned Afrasiab, incorporating parts of the former suburbs. New city walls were built in the form of an irregular polygon with six gates that led to six main trade streets that converged in the center of the city. Here Timur ordered the construction of a domed market structure that stood on the site of the present Charsu Pavilion, a trading structure built in the eighteenth century and still in use today. As part of this simple urban scheme, large representative buildings, including mosques, madrasas, caravanserais, and baths, were constructed to honor the ruler and his family and to impress citizens and visitors with their scale and richness of detail [1].

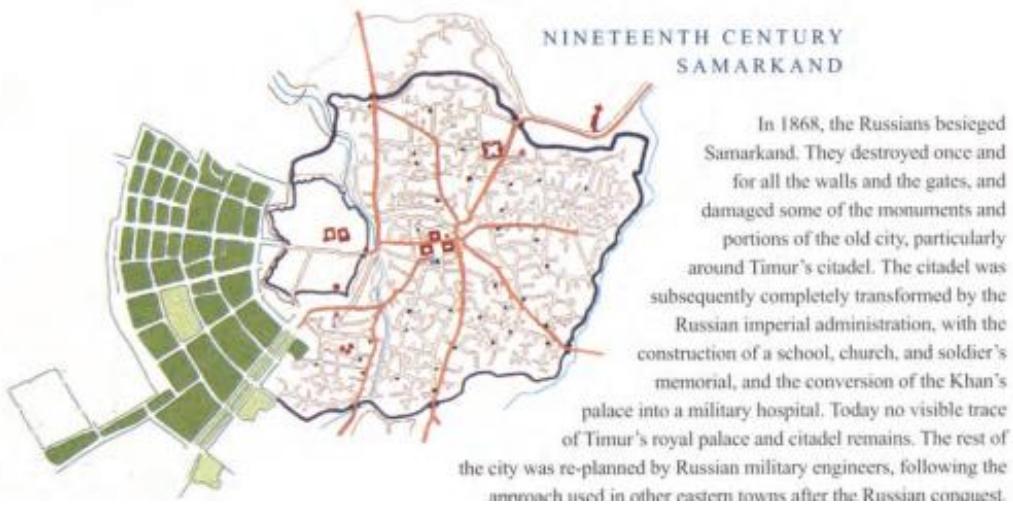


**Fig. 2. Map of Samarkand at the end of the Timurid period.**

(Source:

*The Aga Khan Trust for Culture. Historic Cities Support Programme. Planning for the Historic City of Samarkand. Geneva, 1996) Samarkand in the XIX century.*

At this time, Samarkand was divided into two clearly defined neighborhood parts: the original city, left over from the Mongol, Timurid, and post-Timurid periods, and the new part built, beginning in 1871, to the west of the old settlement. The new city followed European patterns of layout and architecture with a series of radial axes centered on the Timurid citadel and connected by semicircular avenues arranged in concentric order. This pattern is still clearly visible in the layout of the city's attractive nineteenth-century tree-lined quarters, which are worthy of preservation in their own right, as well as in the residential and administrative structures planned and detailed in European style [1].



**Fig. 3. Map of Samarkand in the XIX century.**

(Source:

*The Aga Khan Trust for Culture. Historic Cities Support Programme. Planning for the Historic City of Samarkand. Geneva, 1996) Early planning scheme in the 20th century.*

The first official master plan of Samarkand was developed in 1937 and 1938. The plan envisioned the growth of the city in the west and southwest directions and envisioned a population of 250,000. The plan envisioned the completion of a radial plan developed in Russia. Although the scheme was never completed, several new roads were built through the historic district, paving the way for the changes that occurred later in the century. The main monuments were preserved and became localized points for later urban transformations. In addition to residential areas, the plan envisioned the development of an industrial sector that was to have a

significant impact on the city in the near future [1].



**Fig. 4. General plan of Samarkand in 1938 according to M.S.Bulatov.**

(Source:

*The Aga Khan Trust for Culture. Historic Cities Support Programme. Planning for the Historic City of Samarkand. Geneva, 1996*

The next two decades brought significant change to Samarkand, largely due to the events of World War II, when large numbers of industrial enterprises were relocated to the far reaches of the Soviet Union and, in particular, to Samarkand. These events forced a revision of the 1937 plan. The formal radial system, which would have required extensive demolitions and significant population displacement, was abandoned in favor of a looser scheme linking the center to the peripheral rural areas.

After the war, Samarkand was surrounded by a ring of large high-rise apartment buildings designed for new immigrants. In the following years, Samarkand's population grew to 170,000 and its area expanded to 2,270 hectares between the banks of the Zarafshan River in the north and the Dargom Canal in the south. The socio-economic model developed in the mid-1960s emphasized industrial development and the need to create jobs. Eventually, in 1968, the Uzbek Institute of State Planning, in conjunction with the Moscow Central Urban Planning Institute, prepared economic projections that foresaw the continued growth of Samarkand and reflected the growing importance of the industrial sector as well as the city's significance as a scientific, cultural, and tourist center. These studies paved the way for the preparation of a new general plan for the city, begun in 1975 and completed in 1980 [1].



**Fig. 5. General plan of Samarkand in 1960 by T. Kalinovskaya and A. Aleksandrovich.**

(Source:

*The Aga Khan Trust for Culture. Historic Cities Support Programme. Planning for the Historic City of Samarkand. Geneva, 1996*

At the regional level, the 1980 plan offered the unresolved question of whether the southwest or possibly the northeast of the city was preferable. In addition, the plan called for the development of a road network around the city to facilitate the movement of

goods from east to west and from destinations such as Tashkent, Bukhara, Shakhrisabz, and Khorezm. The creation of strategic bypass roads would avoid heavy transit traffic entering the city, while the master plan envisioned road links between expanding residential and industrial areas to the east and west.

In addition to these circulation problems, the 1980 plan sought to address industrial activity. It called for the relocation of industrial activity, especially heavy and hazardous industries, from the center to outlying areas, especially to the west and northwest of the city. In addition, the plan sought to improve and expand the housing stock by dedicating land in adjacent agricultural areas for the development of residential neighborhoods [1].



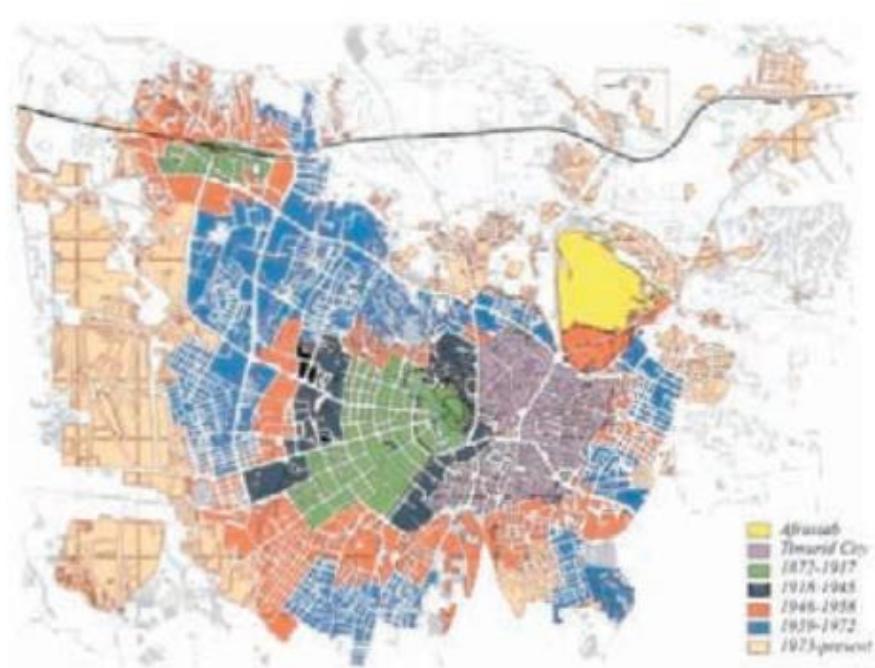
**Fig. 5. General plan of Samarkand in 1980 as analyzed by A. Aleksandrovich.**

(Source:

*The Aga Khan Trust for Culture. Historic Cities Support Programme. Planning for the Historic City of Samarkand. Geneva, 1996*

As previously stated, the territory of Samarkand is divided into concentric zones: central and peripheral. The central zone is the most valuable part of the city, consisting of the “old” and “new” city. Complexes of buildings in the city center in combination with green spaces and pedestrian connections create a system of architectural ensembles that dominate the urban landscape and remain an organic element of the urban system.

The historical and cultural significance of Samarkand are the main factors determining its development prospects. Nevertheless, although the historical center of Samarkand plays a key role in shaping the architectural appearance of the city, it must coexist with the development of the functions of the center, reconstruction of residential development and provision of the entire territory with engineering infrastructure [2].



**Fig. 6. Map-scheme of historical development of Samarkand.**

(Source:

*The Aga Khan Trust for Culture. Historic Cities Support Programme. Planning for the Historic City of Samarkand. Geneva, 2000)*

1994, the Aga Khan Foundation's Historic Cities Support Program joined the Samarkand Municipality in a long-term collaborative effort to review and update the 1980 Master Plan for the historic city and to prepare more detailed proposals for the rehabilitation of some key areas of the old center. The aim of this initiative, with the assistance of two international consultants, was to create a deeply rooted joint institutional structure involving the technical departments of the municipality and key staff of the State Institute of Planning and the State Institute of Restoration, drawing on the resources of the Samarkand School of Architecture and providing new opportunities for young Uzbek architects and planners.

In this program, Samarkand was to be considered as a single complex consisting of four constituent parts. These are the Afrosiab site, an archaeological site of world significance that is more than 3,000 years old; a part of the city of the Amir Temur and Temurid era, the so-called "Old City"; the city of the colonial era or "New City" and the city that emerged during the Soviet period.

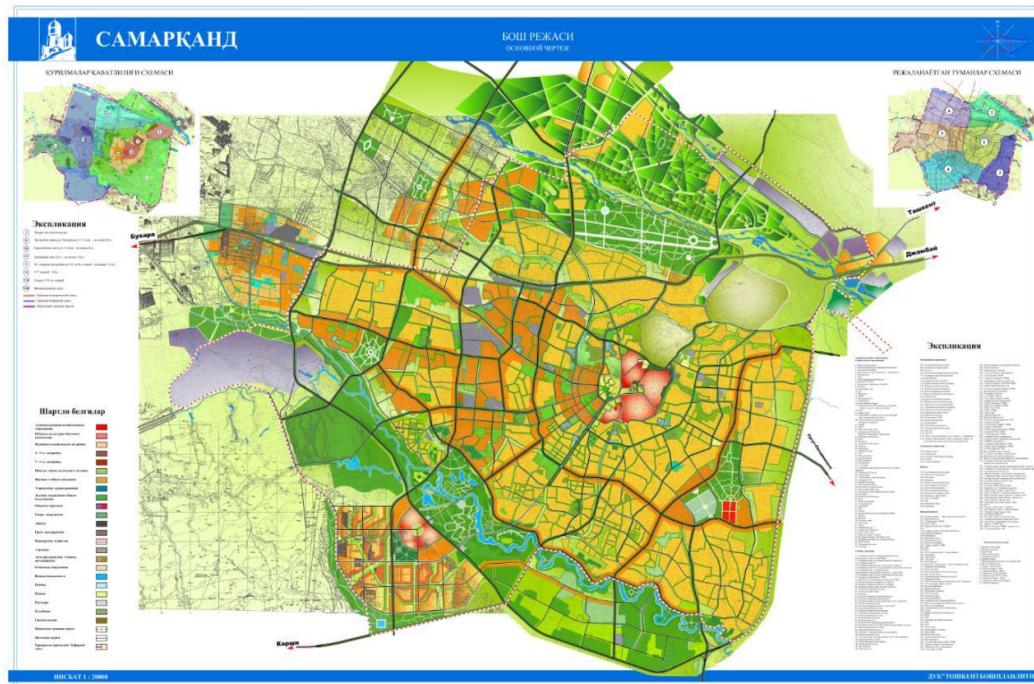
There were quite objective questions, for example, how can Afrosiab influence the solution of modern urban planning problems? Firstly, its historical status is defined, it is protected by the state. But at the same time, in order to deepen the notions of architectural and historical monument "reserve" it was necessary to solve a number of crucial problems that directly affect the solution of modern urban planning problems. The problems of the second city are no less significant. Thus, the Temurid city has strictly specific features. Here the main urban planning task was the need to preserve the historically valuable residential environment, which is the embodiment of the material culture of the national architecture of the people. Within the framework of the general plan it was necessary to solve the transportation scheme of the old city part of the city, providing it with modern engineering communications. "New City" was built according to the projects of Russian architects, but by the hands of Uzbek masons. The architecture of this part of the city has chosen a lot of techniques and engineering solutions that were developed by national architects and masters. Probably one of the most important tasks for the improvement of the city was to restore, where possible, the irrigation of the "new city", which will dramatically improve the ecological situation. A detailed planning project had to be prepared for this area [2].

The challenges faced by a historic city such as Samarkand stemmed from the very high migration into the city and the associated need for new housing construction. In addition, there were cultural and historical problems associated with the demolition of old buildings. At the same time, the density of the urban population compared to other cities indicated that Samarkand as had sufficient reserves of internal territory for further development. In 2004, a master plan for Samarkand was developed to contain its growth. To reduce the migration pressure on Samarkand, the possibility of creating satellite settlements (towns)-as well as expanding existing settlements-was studied. This plan envisaged the completion of the construction of an ensemble of public buildings in the administrative center of the city, as well as the demolition of dilapidated housing and the construction of new comfortable residential buildings with a high level of amenities on the vacated territories.

Reconstruction of the residential development of the "old city", formed in the Timurid era, assumes maximum preservation of the structure of the building and provision of favorable living conditions. At the same time, in the "new city" the main attention is paid

to the renewal of the housing stock and its saturation with facilities is given to the renewal of the housing stock and saturation of it with objects of both primary and exclusive service. Because of their central location, the “old” and “new” city are involved in the commercialization and development of services related to tourism. The integrated tourism development program is based on a unified system of tourist concentration zones united by transport routes. This provides a full range of services for tourists within a 15-minute pedestrian-transport accessibility, including accommodation, services, entertainment, reference and information and transportation services. The Master Plan envisages places for possible location of such facilities without compromising the rich historical and cultural heritage of the city.

In 2016, the government commissioned the development and improvement of master plans for six major cities of Uzbekistan: Nukus, Andijan, Samarkand, Bukhara, Navoi and Namangan.



**Fig. 7. General plan of Samarkand city. State Unitary Enterprise “Toshkentboshplan LITI”. (Source: Internet Resources)**

In accordance with the address program, the development in 2017-2019 of the master plan and detailed plan of the central part of the city of Samarkand, designed until 2040, was entrusted to the SUE “Toshkentboshplan LITI”.

The Master Plan envisioned the expansion of the city by annexing part of the territories of Samarkand, Tayliak, Pastdargom and Akdarya districts. Also the creation of tourist zone “Samarkand City”, construction of service facilities on the territory of this tourist zone. It was noted that administrative buildings will be moved outside the old city, on the territory of Pastdargom and Samarkand districts.

The purpose of master planning is preservation through development and development through preservation. By creating an effective and flexible planning system to ensure sustainable development of the city, its systematic development from the middle of the XXI century will allow Samarkand to rise to the world level as a center of ancient Central Asian civilization and a modern city.

### Conclusion.

The huge historical and cultural significance of Samarkand city in the world culture is the main factor of its development. When developing a new master plan, the tasks of preserving the natural conditions, attractions, infrastructure of the city and living conditions of Samarkand residents were set.

For many centuries Samarkand has formed its image as a historical city, which is quite bright and memorable. Nevertheless, the city has great potential for further development, not only as a historical center of our country, but also scientific, cultural, transport and gastronomic. Samarkand is a tourist city with a centuries-old history, every inch of this land, every structure and monument has its own value, is considered a wealth not only of ours, but of all mankind.

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