

# The Ways Of The Development Of Architecture Of Independent Uzbekistan

M. K. Akhmedov, D.A.Nazarova

**Abstract:** The article is about the analysis of the development of architecture and urban planning of Uzbekistan from ancient times till the 21st century. Scientific-based recommendations of the city structure improvement in contemporary conditions.

**IndexTerms:** urban planning, transformation, urbanization, genesis, general plans, housing construction, functional urban planning, old city areas, reconstruction, monument restoration.

## 1 INTRODUCTION

Central Asia referred to by ancient origins as Transoxiana (in works of Greek-Roman authors), Turan (in Persian and local sources), Maverannahr (in Arabic literature), and Turkestan played an important role in the formation and transformation of universal values during the whole historical cultural development. It can be clearly seen from the most ancient transcontinental trade and cultural ties as Lazurite, Ruby and Great Silk Road that served as a powerful generator for development of many regional, and through them, international cultural formations. Great scientists-theologians as Imam al-Bukhari, Imam al Termizy, Imam al-Moturidy, founder of the algebraic science – al Khorezmy, famous mathematician al Fergany, great physician Abu Ali ibn Sino (Avicenna), one of the founders of Muslim philosophy al Faraby, scientist and Encyclopaedist al Beruny, the Great statesman Amir Timur, famous ruler and astronomer MirzoUlugbek and others were born, were educated, and worked here. That's why the research of this culture is of great importance. In this context the problem of the research of urban planning issues, where every city appeared as a unique intersection of cultures, seems to be quite remarkable.

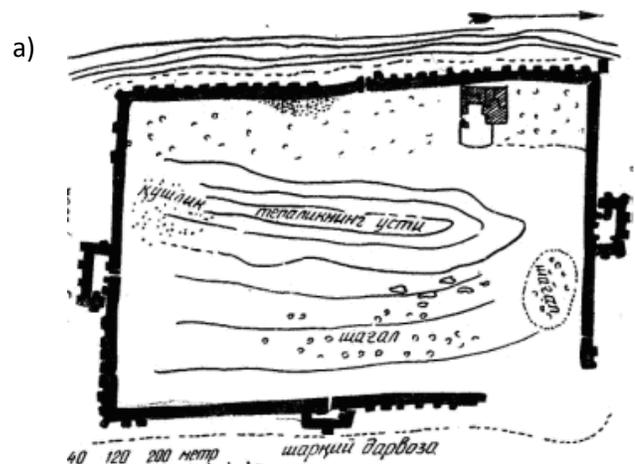
## 2. PAPER SUBMISSION PROCEDURE

Facts gained through archeological researches confirm inhabiting the territory of Central Asia as early as in Acheulean era. Numerous monuments dated back to both stone and bronze ages have been found in the mountains of Surkhandarya, Tashkent, Samarkand, Fergana and Navoi regions and in rivers' valleys. Hence the evolution of human life can be traced from the ancient times to the moment when the environment was first urbanized.

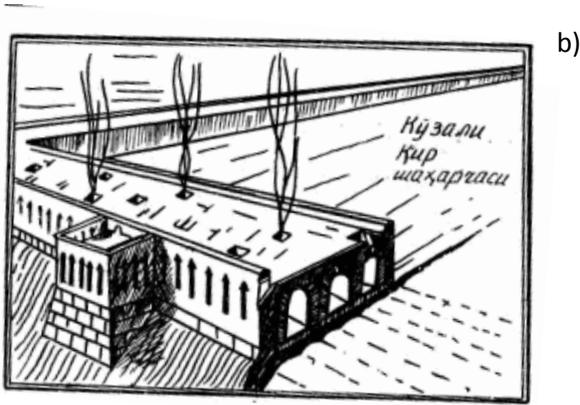
Analyzing this evolution process through numerous investigations into material culture history it has been determined that every single stage of social and economic development corresponds to definite form and degree of artistic creativity development. The latter being a derivative of the first, thus reflects manufacturing capacity of society and appropriate aesthetic views. This phenomenon is called artistic style and hereupon is characteristic for all types of creativity. The following styles and epochs are known in architecture and art history – Archaic, Antique, Roman, Gothic, Renaissance, Classicism, Modern, Post-modern etc.

### 2.1 Review Stage

Certain artistic trends were also typical for various historical periods of Central Asian architecture. Specifically, studying such ancient settlements as Sapallitepa (XVII-XIV centuries BC) and Jarkutan (XIV-IX centuries BC), also magnificent Buddhist monuments – Karatepa and Fayaztepa – situated in Surhandarya region (1-3 centuries AD) contributed into the research of Central Asian civilization. Of great significance for Uzbek national history is the culture of ancient Khorezm, which according to Abu Rayhan Beruny, emerged 982 years before Alexander the Great invaded Central Asia, or, in other words, 34 centuries ago. This is proved by magnificent ancient settlements of ancient Khorezm antiquity as Janbaskala (IV century BCE), Koi Krilgankala (2nd cent. BC – 4th cent. AD), Toprakkala (I cent. BC – VI cent. AD), Ayazkala (2nd century BC) discovered on the territory of Republic of Karakalpakstan.



- Doctoral candidate DinaraNazarova, Tashkent, Architectural building Institute, Uzbekistan E-mail: [dinara-khan@mail.ru](mailto:dinara-khan@mail.ru)
- Dr. of Architecture Professor M.K. Akhmedov, Tashkent, Architectural building Institute, Uzbekistan E-mail: [ahmedov-m47@mail.ru](mailto:ahmedov-m47@mail.ru)



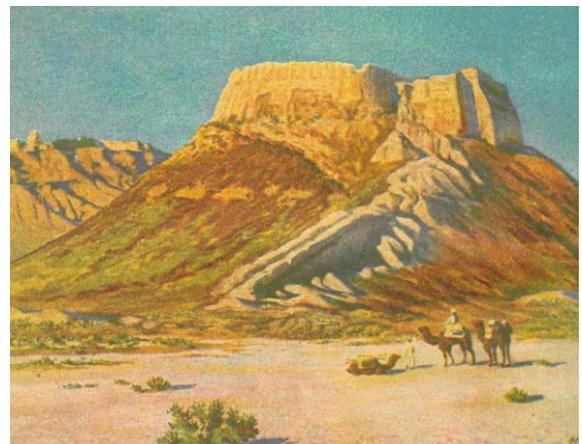
**Fig. 1.** Settlements of the type Avesta Var. a) Kalalikir b) Kuzalikir



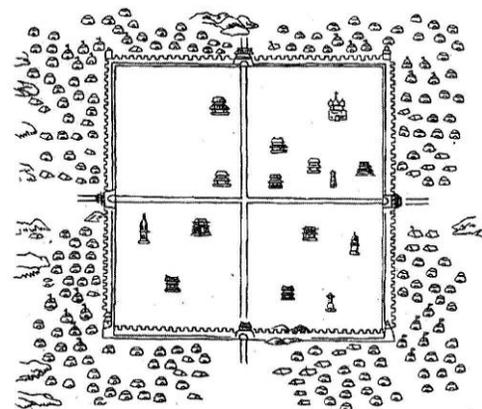
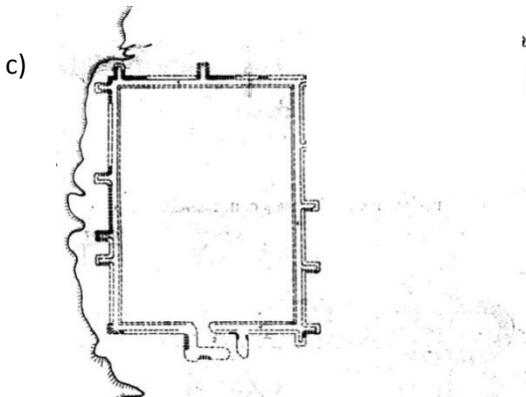
**Fig. 2.** Settlements-Vars with housing walls: c) Kurgashin-kalad) Big Ayaz-kala

**2.2. Final stage**

However, as it's known, in the beginning of the 20th century the historical course of social economic development was forcibly changed. Severe shocks occurred in the field of art and, particularly, architecture. Stalin's slogan proposed art to be "National in form, socialist in substance". However, the strategy failed to succeed for the slogan was essentially false, as it ignored the essence of philosophic category of the unity of form and substance actively advocated by Marxists themselves. Consequently, all cities were filled with patterns of boring, featureless, uniform architecture of typical buildings, especially residential buildings and microdistricts. A residential building built in Bukhara or Samarkand differed a little from residential buildings of Chelyabinsk or Magnitogorsk. Microdistricts resembled the ones designed for Belarus or Ukraine. During the Soviet period Uzbekistan, as other soviet republics, unconsciously imitated Moscow urban planning methods. In master plans of Tashkent and Samarkand made in the end of 1930s the tendency of adopting Moscow's ring-radial scheme was observed. The design of Navoi Avenue in Tashkent followed the principles applied to create Kalinin's (Tver's) Avenue in Moscow. The layout of the square in front of the theatre of opera and ballet in Tashkent together with TSUM shopping mall, and a hotel reminds principles of formation of the square in front of Bolshoi Theater in Moscow.



**Fig.3.** Little Ayaz - kala



**Fig.4.** An example of an East-Asian encampment

It's not a secret that by the end of 20th century bigger part of cities and settlements had master plans, which were not expected to become obsolete by the beginning of 21st century. However, in view of the new circumstances, namely with acquiring independence, all settings of master plans remained being out of demand. They didn't meet the new requirements. Residential program accepted during the Soviet Union remained unimplemented. Complicated permitting procedures prevented from developing new sites. Development rate of state housing program was behind the

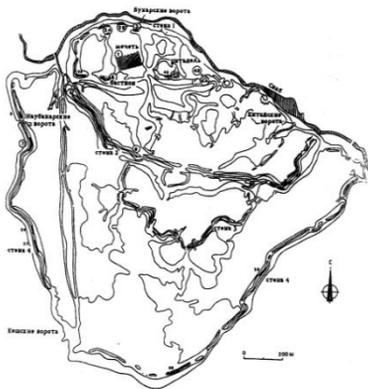
population growth. Individual housing construction in cities was effectively forbidden.

### 3. SECTIONS

Independence conditions allowed of developing housing construction at the expense of the individual sector rapidly. This opposed the old general plan dogmas of that time. The old system destruction deformed also main urban planning condition – the base of city-forming personnel. This was a main criterion of the functional zoning method existed in soviet time, accepted by all-USSR convention in 1957. As it is known the basis of urban functionalism is represented by functional zoning of industrial, residential, as well as dwelling and recreational zones. Originally, the approach was employed in industrial city Saint-Etienne by engineer Tony Garnier in 1904, then imitated by the followers of functionalism. Even reconstruction master plans of such world-known cities with the centuries-old history as Samarkand, Bukhara, Khiva were implemented in 20th century in this way. This shows fallaciousness of the idea of functionalism in urban planning and its incompatibility with contemporary conditions. The necessity of taking a new concept instead of functionalist dogmas becomes obvious. It is necessary to observe all approaches in urban planning and confront them with principles of formation genesis and transformation of cities of Uzbekistan.

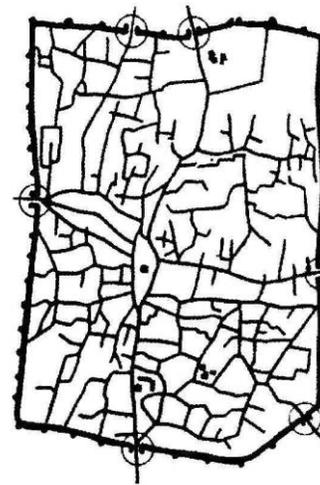


**Fig.5.** Settlement Kok-tepa near Samarkand. VIII – IV centuries BCE



**Fig 6.** Settlement Afrasia- inner city of Samarkand. VIII century BCE – beginning of XIII century.

Hence one more reconstruction question rises – the transport service organization. In fact it was regarded as a primary factor while selecting the city composition. Therefore, urban planners in 1960-70 even reconstructing old cities were doing their best to build new, wide roads, which resulted in 'allogenic structures' formation. Contemporary small passenger vehicles currently used in Samarkand, allow to start dead-end and short runs within historic cities. Consequently, big, high-speed runs could be remained out of historic areas. In the old city zone it is necessary to organize dead-end approaches and local communications for small public passenger and freight transportation. Another feature that we noticed is an artistic palette of city fabric. It consisted at least of five contrasting types of construction. It is built upon the combination of low-rise housing buildings plasticity with bigger scale architectural monuments. Medieval architects found the ways of harmonic unity of two building types various both in function, and in scale. In the 19th century after Russian conquest new types of dwelling and public buildings appeared. In other words new varied urban planning and architectural environment appeared. Although houses of Europeans were also low-rise with yards, they had absolutely different architectural language. Static, rectilinear private houses with windows and doors fronting onto the street, presented totally different composition compared to traditional houses. As a result of it utterly new silhouette of development with loft roofs has arisen. In traditional architecture, all windows and doors were fronted onto courtyards, with flat roofs and dead walls.

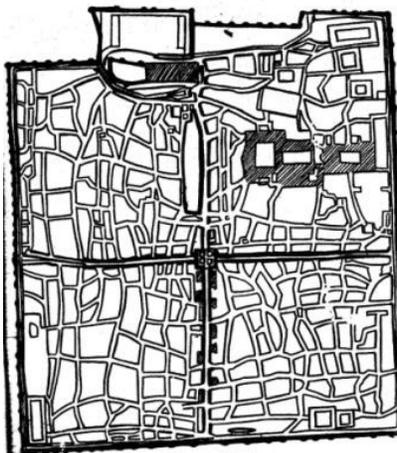


a) Shakhrisabz

**Fig 7.** Medieval Timurid's "Ruba" type cities

Traditional old city framework beginning from city gates passed across street development, branching out to inner quarter spaces and main directions, rested against trade buildings situating on intersections. Hence traditional urban pattern included main buildings, ensembles (urban and quarterly), street network and yards. It was contrary with its contrast plasticity to later emerged piece architecture of functionalism. Another negative aspect of imitating the European urban planning is the tendency of enlarged parquet landscaping. In that regions where groundwater level is shallow and the soil is salted this may lead to overexpenditure of water, to the rise of groundwater level on the one hand, and excessive air humidity on the other.

Parquet landscaping is contemporary and effective landscape organization method. It can be used around the monumental sites and in the regions of the Republic, where groundwater level is deep enough. Functional urban planning methods also come into contradiction with new conditions of transition to market economy. It is well known, large scale industrial enterprise construction practice is now being step by step replaced by small and middle business infrastructure development. In addition, improvement of technological processes made it possible for some production facilities to become more environmentally friendly. This in turn allows some manufacturing facilities to be relocated from unattractively looking industrial zones and placed into residential areas. Now a tendency of public buildings' disaggregation is being considered. This experience could be implemented also in practice of the old city reconstruction zones. So is it necessary to build kindergartens, schools with big capacity equipped with necessary sports facilities, industrial areas and transport network in medieval areas of the historical cities like Samarkand, Bukhara, Khiva etc.?



b) Gerat

Since first days of independent development the question of revival of traditional basis of spirituality and enlightenment in newer, more competitive environment has been risen. Under the direct leadership of the President of the Republic of Uzbekistan I.A.Karimov the course for the traditions revival and statement of own development way has been set. In a short time period monumental complexes related to names of Amir Temur, AlisherNavoi, JalaliddinManguberdi, Alpomish, Imam al Bukhari, Moturidi, Margilon have been erected. Till now unprecedented examples of industrial architecture like automobile plant in Asaka and Samarkand, patterns of landscape architecture with fountains and irrigation systems have appeared, restoration of architectural monuments has been raised to a new stage, the creation practice of architectural ensembles arose anew. All this could be realized as a result of introduction of sustainable legislative base.

#### 4. HELPFUL HINTS

In 1995 the law "About architecture and urban planning" was accepted, in 2002 "Urban planning code" was accepted by OliyMajlis (Senate) and was put into force together with a number of Decrees of the President of the Republic of Uzbekistan, and Cabinet of Ministers, aimed at urban planning practice improvement. Consequently, unauthorized

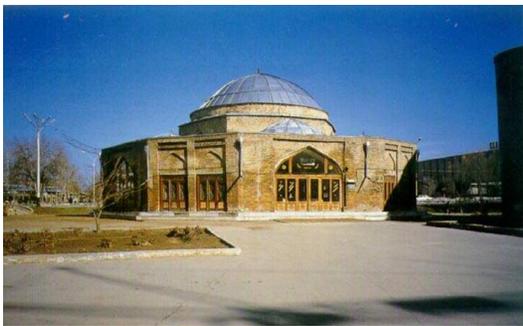
construction was forbidden. The practice of accurate compliance with architectural design during construction and in accordance with approved general plans was established by law. As a result it has become necessary to harmonize the "Urban planning code" with all related legal acts, thus creating a system of architectural-urban legislation, which henceforward should become obligatory to regulate development and realization of urban planning projects. There are definite difficulties in the agreement process of master plans caused by outdated bureaucratic system. It is necessary to coordinate the activity of all state authorities for prediction, development, agreement and realization of master plans, as they are often seen as a document needed only for architects, for those who developed them. New socio-economic conditions of development require the region planning scheme development for a distant perspective both in state and region scale, with development of projects and schemes for near future, allowing setting principles of mobile city organism development. Meanwhile a necessity exists for a wider use of GIS technologies and computer-aid methods. Separate attention should be paid at the architectural image and style. One should be careful being too keen on pseudo-gothic turrets and gabled roofs.

#### 5. CONCLUSION

Special features of Uzbek urban planning were traditional originality of its planning structure formation, development plasticity aimed at creation of microclimate, enrichment of city with archeological and architectural monuments and creation of harmonized building groups – architectural ensembles. Our magnificent cities Tashkent, Samarkand, Bukhara, Khiva are famous with such fantastic architectural ensembles as Khazrat Imam, Registan, LyabiKhaus, Ichan Kala etc. Our generation is able to save them for the next generation in an improved urban environment. In connection with this when projecting historical cities, first it is necessary to depart from functional urban planning method. Instead, we suggest using a method of genetic code determination and transformation regularity of city planning framework. Separate moments of this approach have been employed by authors of the recent general plan of Samarkand ("Toshkent Boshplan LITI"). But they overlooked research issues of compositional variety of origin and meaning of architectural ensembles in framework formation of city development of Central Asia. A planning framework of medieval cities normally formed on a basis of the main trade intersection – Chorsu. Almost all historical cities of Central Asia have one in their structure as an important urban planning junction. Until recently there was an opinion that Chorsu have appeared in the Middle Ages.



**Fig.8.** Registan square ensemble in Samarkand.XV – XVII centuries.



**Fig 9.** Trade dome Chorsu at the intersection of the same name in Samarkand, XIV - XVIII centuries.

But it is false. Our researches have determined in the Central Asian antiquity some towns had four gates, facing four settlements of Kuzali-kir. As we imagine in that distant times the intersection of streets going from these four gates made an intersection, which in the Middle Ages became Chorsu. In the sequel in the city growth process they became poly-central. As a rule these centers were built up with architectural ensembles like BibiKhanim, Registan, Guri Emir in Samarkand, Poi Minor, LabiKhauz, Kosh madrasah etc. in Bukhara, Dor us-Siyodat and Dorul-Tilovat in Shakhrisabz etc. They did form a city framework structure, in other words, made a basis of city structure principles. Therefore, in reconstruction of historical well-established cities of Uzbekistan we need to determine their genesis of initial planning composition origin and lay a matrix step-by-step development of planning framework over it.

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