# Identifying Historical Centers of Cities and Developing Design Code Rules for Them (In the case of Samarkand and Bukhara)

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ABSTRACT

This article describes the development of design code rules for historical cities, the analysis of problems related to the design code elements of Bukhara and Samarkand, the analytical processes and scientific views of determining the historical area of the city. Sections of design code rules are discussed.

**Keywords:** Design-code rules, historical city framework, plasma, tourist flow, historical city fabric, re-design areas, design-code elements, building morphotype, street classification.

## Introduction

Nowadays, many cities of the world have their own design code rules. In the last 15 years, this process has developed a lot in the CIS countries as well. Special attention is being paid to the development of design codes in various cities of Russia. It was developed in Moscow, Yekaterinburg, Tikhvin, Sakhalinsk, Ryazan, Chelyabinsk and several other cities [1-4]. As a result of this, we can see the increase in the quality of life of the city residents, the improvement of the quality of services, the development of tourism, and the level of security has changed significantly. High results have been achieved in this regard in many European countries, America, and Turkey [5-8]. In the cities of Uzbekistan, the government has given a number of assignments regarding the development of design code rules in recent years.

## The main part

There is a demand for the development of design code rules in the historical cities of Uzbekistan, as well as large industrial cities. The most prominent of such cities are Bukhara and Samarkand. We are conducting research with our scientific team on the development of design code rules for the historical centers and historical areas of these cities [9-13].

The main part. We visited the historical regions of Bukhara and Samarkand with our scientific group and studied the historical monuments there to develop design code rules. Here, it can be clearly seen that the variety of design-code objects and their different styles lead to the visual disturbance of the environment. It is a pity that the lack of parking spaces due to the incorrect installation of advertising objects on the spaces and facades of the historical monument, the incorrect placement of commercial objects, and the lack of parking spaces due to the incorrect distribution of the

territory is causing serious damage to the buildings (Figures 1, 2).

**Figure 1. Negative situations in the historical areas of the city of Bukhara**


**Figure 2. Negative situations in the historical areas of the city of Samarkand**

Such situations can be solved through design code rules. We know this, but under what conditions are design code rules established? or are there any rules for them? There must be a solution to such questions, especially when developing design code rules for historical cities [14-19].

Therefore, before developing the rules of the design code, it will be more correct to fully study what it is, its purpose and object, and to put the conditions for its organization into one template. Research has shown that the design code rules made in different countries consist of a set of rules that apply only to this city, and these rules are not suitable for another city. That is, there are no general principles that should be taken into account to create a design code for different cities [20-24].

The design code includes not only the design of road signs, but also the rules for the design of signs on the facade of the building, air conditioners, windows and entrances. Also, as part of the development of the design code of the regions, the existing street and road network, areas were classified. Possible variants of profiles are developed and

functional zones of streets are defined. In the design of streets, the experience of foreign standards is taken into account, according to which the following elements of regulation are distinguished: carriageway, pedestrians (sidewalks) with short-term rest areas, bicycle paths, parking lots, it is required to develop parking spaces, street furniture, advertising elements, navigation, pedestrian crossings, street improvement standards for people with reduced mobility, functional and architectural street lighting, including landscape design [25-28].

Based on world experience and as a result of analysis of the design code rules produced in the world, we can determine the procedure for developing such rules for the historical areas of the city. We tried to reveal this process step by step.

First of all, the area under consideration is analyzed, that is, the condition of the area is determined. It is important to determine the historical areas of the city and define its boundaries. For this, it is necessary to determine the historical framework of the city. As part of the preliminary study, the streets within and outside the boundaries of the historical settlement are analyzed, that is, their profiles and dimensions, points of visual perception of architecture. Some streets of the city are mainly used by drivers, while others are mainly used by pedestrians. Also, the streets connecting the main attractions in the central part of the city and forming the tourist circle of the city will be identified. In other words, this process is called street classification. Design norms are developed depending on the classification of streets. But that's not all. How the design will be is a process that depends on several factors.

At the next stage, a map of the area affected by the rules of the design code will be developed, where the streets will be divided into categories according to the types of streets. The street category also determines how the design code rules are implemented in the city. It is considered appropriate to start the implementation of the rules from the central streets that make up the tourist area of the city.

Within the analytical limits of the area, its architectural samples are studied, the morphotype of the buildings is determined.

Building morphotype is the building's functional content, historical and cultural identity, its value level, and its specific spatial and design solution.

Depending on building morphotypes, design code rules are developed based on their general aspect or for individual morphotypes.

Design code standards for historic areas may consist of several sections or be divided into several sets of standard rules. These are:

- Standard for design and placement of advertising and informational structures on facades of buildings
- Standard for design and placement of building facade elements (Design standards for entrance groups of buildings)
- Standard of finishing and color solutions for building facades
- Standard for design and placement of advertising and informational structures in the urban environment
- Design and placement standard for navigation, information boards
- Lighting standards: architectural and landscape lighting
- Standard for the design and placement of protective barriers and fence elements
- Catalog of standard urban furniture
- Seasonal cafes and their placement standard
- Non-stationary trade objects and their placement standards
- Rules for landscaping and beautification
- standards for non-capital objects and small architectural forms
- Holiday, event and seasonal decorating standards, etc.

There are other documents that are superior to the development of design code rules. These documents are developed on the basis of government decisions, current documents of urban planning and construction standards, laws and regulations on outdoor advertising, rules of regulation of road construction signs, UzDST and other design code rules.

When defining the historical area and its boundaries, first of all, the core of the historical center is determined, its fabric and objects, flow (channel) are found, and accordingly the re-design areas are determined, plasma is formed. This method can be explained by the following scheme (Figure 3).

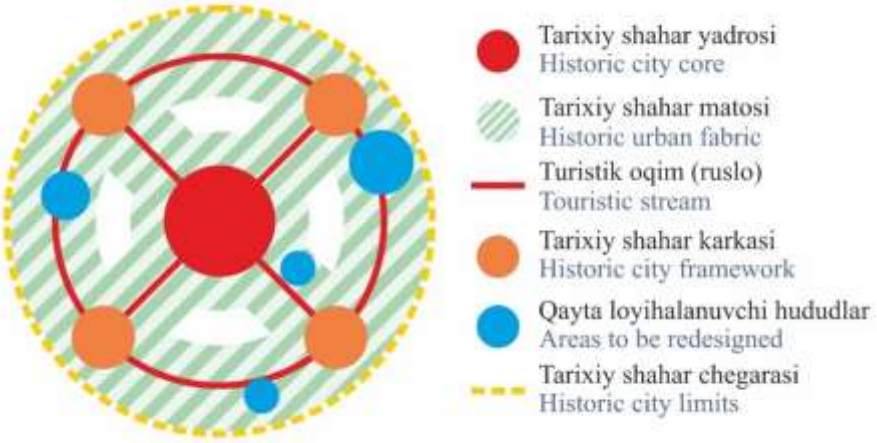


**Figure 3. Schematic representation of the definition of the Taihi city area**

"Frame" is a part of the system that makes up a relatively stable structure, and concentrates the main processes of the life of the city's inhabitants associated with the high intensity of spatial development. So, "framework" is the basis that forms the structure and geometry of the city plan and forms the territorial and periodic development trends of the city.

In relation to the city: the city's main transport and communication hubs and highway system, as well as related objects of urban significance; a system of historically formed main streets and squares with ensembles, buildings, public objects of unique and attractive cultural and compositional value for tourists.

"Fabric" - the components of the urban planning system that form the main material substrate of the frame. So, "fabric" is understood to fill the spatial planning system (architectural objects) in a less stable time. For example: construction objects can be included (residential, public, industrial buildings, service facilities).

"Plasma" is a part of the system that changes over time, in which the shortest-lived elements are concentrated (low stability). That is, the elements can be changed or replaced by others, change quickly depending on changes in external conditions. Examples include temporary structures, urban improvement (green areas), advertising, decorative elements, design and equipment elements, and information and communication systems.

Nowadays, the proper organization of the plasma is important for the proper organization of the comfortable life of the population and for the city structure to fully fulfill its function. An improperly organized plasma significantly affects the normal functioning of the entire system. Because the plasma is present in the frame and fabric of the city, and it does not directly affect the activity of the other two elements in the system. Urban plasma objects are also design code elements, but design code rules are not limited to urban plasma. Sections "Standard for Design and Placement of Building Facade Elements (Standards for Design of Entrance Groups of Buildings)" and "Standard for Finishing and Color Solutions for Building Facades", which are part of the design code rules, affect the appearance of the urban fabric and forms them on the basis of general law.

Redesignable areas - these areas are mainly covered by the "Landscaping and Beautification" section of the design code rules, and are areas in need of renovation determined as a result of the analysis of the fabric of the

historical area and the parts that pass through it. is considered Proposals are developed for them within the framework of design code rules.

Tourist stream (ruslo) - tourist and trade areas in the historical areas of the city that divide its core, framework and fabric. They mainly include historical-tourist objects, streets and roads connecting trade and service areas. In developing the design code rules, determining the flow for the historic city helps us to define the category of streets.

## Conclusion

When developing the design code rules for the historical areas of Bukhara and Samarkand cities, it is necessary to determine the historical center of the area, define its boundaries, and draw a map. This map should show the streets divided into categories. It is necessary to apply the factors studied above and the proposed scheme when classifying streets. In addition, it is appropriate to develop the design rules in accordance with its sections, to use them in the design reflecting the history of the area.

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