

# ARCHITECTURE OF TRADITIONAL RESIDENTIAL BUILDINGS APPROPRIATE TO HISTORICAL CITIES

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**Abstract:** The territory of Uzbekistan consists of regions with different climates, housing construction has a different composition in these regions and has a unique history of development. In the medieval centers of Bukhara, Khiva, Samarkand, Tashkent and Fargona valley, housing construction developed in different ways. In this, the influence of climatic conditions and religion on housing construction is extremely large.

**Keywords:** Bukhara, Housing, Samarkand, climate, weather, ages, Bukhara, Khiva, Tashkent, Natural, Tashnov.

The main regions of our republic are hot zones. In summer, the air temperature rises above 50°. For this reason, attempts were made to make the holes (doors, windows) of the houses smaller and the walls thicker. Since housing is designed to meet human needs, the list of necessary rooms is as follows: common room, kitchen, bathroom, toilet. For a family, the rooms on this list are sufficient for living. Despite this, housing construction has developed in different parts of the world in its own way. There can be two main reasons for this.

1. Influence of natural conditions.
2. Influence of local customs and religion.

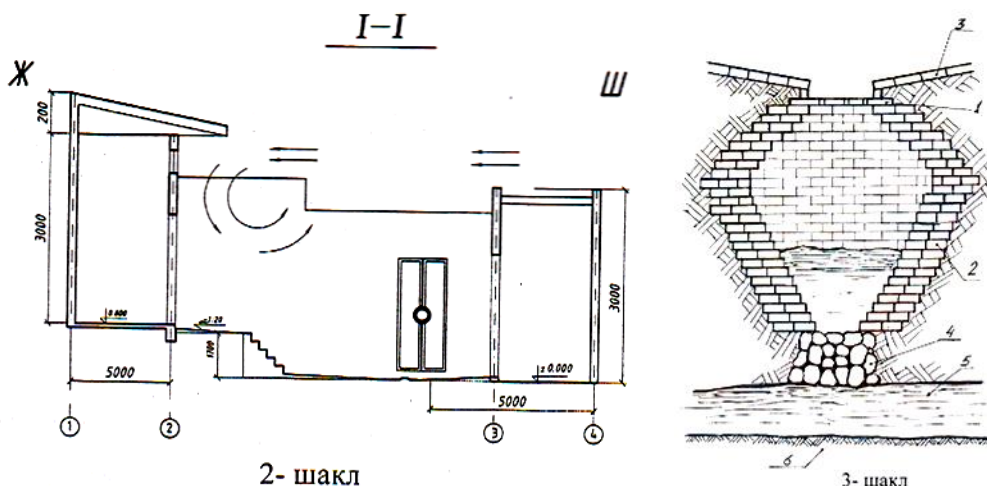
As a result of the influence of the natural climate, building constructions and housing plans have changed and improved. While all efforts in the construction of houses in cold climate regions tried to capture the heat, in hot climate regions it is aimed at creating coolness.

Natural conditions determined the use of more materials. Bridge stone in mountain conditions, wood in forest conditions, brick, straw and other local constructions were used in areas with non-saline soil.

In order to show the uniqueness of housing construction in our republic, we present information about housing construction in Bukhara and Khorezm.

The unique aspects of the construction of houses are inextricably linked with natural conditions. In Bukhara housing construction, efforts were made to create factors that reduce the impact of sunlight. From time immemorial in our historical cities, houses have been built together with courtyards. The yard is divided into one, two and three parts. In the cities of Samarkand and Tashkent, the first part consisted of a farm yard, the second part was for trade and production, and the third yard consisted of a garden and a recreation yard belonging to the family, while the yards of Bukhara and Khorezm were divided into two parts. lib named

internal (1) and external (2) heap.



The inner courtyard is intended for women, who are hidden from prying eyes, and the outer courtyard is mainly intended for men and guests. Usually this situation is connected with religion and sharia. What we are more interested in is the structure of the yard, its insulation, circulation of winds or microclimate and, of course, sewage. How was this issue resolved in the absence of a common sewer? Let's consider the above questions one by one.



Toshnov, in front of the Public Building, Toshnov, Khorezm region



Toshnov, in front of the Public Building, Toshnov, Khorezm region

First of all, the following can be said about existing housing construction. Regardless of where the entrance to the room is built, the facade of residential houses is mainly built facing north and south (Figure 1). Now let's pay attention to the yard plan. A high house located on the upper platform is considered a summer house, and a house located on a lower platform is considered a winter house. You can find out why it is called this way from the following. First

of all, if there is a little warm air due to the fact that the winter house is flat, the doors and windows are oriented to the south, the house will be warm, fuel will be saved, and it will be warm. The house on the second floor is cool even on hot summer days. Its doors and windows face north, as shown in figure 2, because the room is low enough to block the northerly winds, the wind blows into the cottage, and the porch directs the wind to the terrace and ensures a constant cool breeze. , in the Khorezm region, such a situation is treated as a reverse and large porch. This situation creates a microclimate in the house, and not only the house, but also the yard will be cool. The direction of the wind is indicated by an arrow. As we can see, there will be no window on the street side of this yard. It is also compatible with oriental education and protects against dust, pollen and noise. Figure 2 shows the location of courtyard houses in a cross-section. The house facing the north is not only built high, but the terrain is also located on a high place. In front of the house, the mature obi is a raised brick platform, which is directed to the lower platform and has a slope.

On the lower platform, in turn, the water is directed to one point, that is, to the construction hole called "water adanlari" in "Tashnov" Khorezm region. Another aspect is that if a small amount of water is sprinkled on the platform made of "Obi brick", the yard becomes ice cold, it does not emit heat like concrete or asphalt, on the contrary, the air is cool. The construction of "Tashnov" is shown in the third drawing.

This construction is designed to receive rain and sewage. When "Tashnov" is excavated, great attention is paid to the following: "Tashnov" depth is dug in the form of a shrinking pitcher. Usually it is dug in the middle of the yard. It is necessary to do so that underground water (5) must come out of the dug hole. After that, a kharsang stone (4) is picked over the underground water.

Bricks (2) are laid over the rough stones. Bricks are laid with a cement mixture. The brick is picked like a hum form. A marble slab (1) is placed in the mouth of "Tashnov". Cylindrical holes with a diameter of 20-30 millimeters are carved in the marble slab, and their number is 2, 3 or 4. The thickness of the marble slab is around 60-80 millimeters. The third drawing also shows the surface of the yard made of brick (3).

The largest diameter of "Tashnov" khum can be two meters. The working principle of "Tashnov" is as follows: since the upper part of the Tashnov chum has a large diameter and the lower part has a small diameter, the mass of water always exerts pressure on the rocks, and as a result of this pressure, the water moves down towards the underground water. The greater the mass of water, the greater the pressure. As a result, the water gets mixed with underground water and the thirst is not filled no matter how much water flows. Our ancestors used these constructions very wisely. Such "Tashnovs" can be found not only in the old courtyards of Samarkand, Bukhara, Khiva, but also in the courtyards of mosques and madrasas: in the Registan ensemble of Samarkand, the Gori Amir mausoleum, in the inner castle of Khorezm, in Bukhara's Machiti Kalon, Maulano Sharif ensemble are clear examples of this. can be During the cleaning process, only the waste accumulated on the stones is removed and "Tashnov" continues to perform its function.



The exterior of a residential house in Samarkand region



The exterior of a residential house in the city of Khiva

"Tashnov" constructions are very common in the old part of Bukhara city. There are such "Tashnovs" that work for 20-30 years and do not require any cleaning work. Let's give another clear example. This is exactly the way in which the sewerage or water outlet of the "Bozori Kord" bathhouse, which is located next to Telpak Furushon, in the old Bukhara, was built in this order.

In conclusion, it can be said that the originality of the house construction was made in accordance not only with the climate of our country, but also with our traditions. It is our duty to deeply study, research and preserve the rich heritage left by our ancestors.

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