

Stages of Development of Traditional Dwellings and Spatial, Constructive Solutions

Madumarova Marg'ubaxon Mahkamboy qizi
Master's Student of Fergana Polytechnic Institute

Mahmudov Nasimbek Odilbekovich
PhD Applicant of Fergana Polytechnic Institute

Annotation: In this article, it is clearly seen that the courtyard is the main element in the structure of residences in the conditions of Central Asia. This can even be seen from the use of the word "yard" instead of the word "house". Residential houses are divided into external and internal parts (outside and inside or inside and outside). Although the main goal is to create a microclimate in the courtyards, the problems of creating a comfortable architectural space suitable for the function of the building isolated from the external environment have been studied.

Keywords: courtyard, darun, berun, Khiva houses, Bukhara houses, Fergana houses, Shakhrisabz houses, Samarkand houses.

Introduction:

Outside, the host received guests, engaged in handicrafts, there is a hotel, a barn, and a stable. The whole life of the family passed in Daruna. The type of residential houses depends on the conditions of the place. A residential house consists of many components and forms a whole ensemble with all its devices, which creates the basis for a large number of options. The appearance of a residential house depends on a whole complex of various social, historical, ethnic, natural and climatic factors. The characteristics of each of them, changes in them lead to changes in the structure of the residential house. Historical conditions were of great importance in the formation of residential types. Feudal division led to the creation of local foci of culture and different forms of architectural traditions.

Main Part

for a Bukhara residential house to be divided into summer rooms facing north and winter rooms facing south or west. This division also applies to the outer courtyard. Depending on the financial resources of the owner of the house, a number of rooms are added, which are divided into western and eastern rooms depending on the orientation. A high, open, brick terrace is widely used in the Bukhara house. A tall, multi-columned porch sometimes took on the appearance of a summer house. Another feature of Bukhara houses is that the courtyard is of a stepped nature. The yard is in the form of a well, the highest point is at the height of the summer house, and the device is usually leveled accordingly. Such a composite structure provides the desired climatic regime, increases air flow, improves air exchange and ventilation.

The compositional basis of the Khiva house is a square courtyard and a pair of opposite porches. There is a high porch facing north, behind it is a summer house - a palace, and next to it there are other living rooms. Opposite the Uluayvon, there is a low farm reverse porch.

The characteristic aspect of the plan of the houses in the Fergana Valley is as follows: the central room is a symmetrical combination of two rooms connected to the khagharcha, the facade wall of the khagharcha is made of rising window columns and the building is built along the facade of the building, consisting of a small porch. The central room is spacious and was used as a common room for all, rather than just an antechamber. This room is often built facing south. Distinctive details of the facade are rising eaves, latticed walls.

Shahrisabz houses are an independent type in terms of their architectural structure. The starting element of the composition is a room with a one-column porch. If there are two rooms in the house, the porch is built between them. In multi-room houses, the main group of rooms is built along the perimeter of the yard. Traditional residences in Tashkent are characterized by a row of rooms and a row of porches with one or two columns. In the room, which is considered to be Fergana style, there are also smooth curved porches and multi-pillared porches along the facade.

In the planning solution of the Samarkand house, one or two rooms are built together with a narrow front room. In the composition of the houses of Uzbekistan, two components can be seen, namely volumetric (room) and spatial (porch) components. There are several composite solution options for the porch.

residential complexes of the cities of Central Asia, large courtyards with two verandas were built, their axes were oriented from south to north, the windows of the main summer rooms were built to the north, and the windows of the winter rooms were built to the south. The porch in front of the summer room was two-story, the rest of the parts were one-story. A large porch catches cold air during the hot summer and directs it downwards. A low porch (terse) was built in front of it, as a result, part of the courtyard was covered with the roof of the porches. In Bukhara, there is a porch or semi-porch type. In multi-room houses, the yard surrounded by devices forms a single composition with it. A special appearance of the loggia is the roof, which is common in Karshi and Shahrisabz. Such sheds are covered with a double-scat roof, which occupies the entire width of the building and provides wind ventilation. The type of indoor courtyard is widespread and has various forms. The type of covered yard in Margilan is interesting in its structure, occupying the space between a winter covered yard and a covered porch. Use of courtyards in public buildings. As mentioned in the previous chapter, courtyards have been used in public buildings since ancient times. The first compositions in which the yard was used in the architecture of public buildings of Central Asia are associated with temples. The first courtyard compositions in public buildings can be found in the example of the fireplace in Jarkoton (15th - 9th centuries BC). There, in the courtyard covered with raw bricks, small huts and shaped bonfires were built. In the castle of Koy Slaughter (II - IV centuries BC), a central structure resembling an observatory in the center of the courtyard, surrounded by a circular wall, determined the composition of the building. It is determined that in the architecture of public buildings in Central Asia, courtyards take a clear composite form by the II-II centuries BC. It can be seen that the method of arranging a regular courtyard in the Fayoztepa Temple and the central composition in the Sheep Slaughter Castle were continued in medieval architecture. The further development of the courtyard tradition is associated with the Islamic period. According to N.N.Brunov, the presence of courtyards is characteristic of Islamic architecture, and these courtyards are accessed from all internal rooms, and these rooms always depend on the spatial space of the courtyard. This feature unites all oriental architectural monuments with each other. Although the first courtyard mosques were created in Arabia, various forms of it were formed in Central Asia. The first courtyard mosques built in Central Asia are still included in the "Arab" style. Our research reveals that the architecture of courtyard mosques in Central Asia was greatly influenced by local fire worshipers and Buddhist temples. For example,

the gatehouse, miyansaray, side and front maqsuras of mosques with courtyards originated from the "chortoq" architecture, and the galleries were influenced by the pillared courtyards of the "devan" type of Buddhists. VV Barthold was the first to suggest that madrasas appeared in the east of the Islamic world, in Central Asia, and were built on the model of a Buddhist temple. He also believed that the place of creation of madrasahs was Balkh province (Afghanistan), which was famous for Buddhism before the Arab invasion. According to E. Herfeld, the construction of these new buildings was based on the design of residences, caravanserais and other structures in Central Asia, and the Iranian system of four porches was used. According to another theory, the predecessors of madrasahs are the early medieval Central Asian palaces, which had four entrances and a central vaulted room, later the entrances were converted into porches, the central room and turned into a yard. And madrasahs have similarities in general character with pagan temples and are limited by the construction of rooms around the courtyard. They began to build caravansary along the caravan routes to protect people, animals and cargo. They were surrounded by walls (often with two rows of walls), with towers and semi-towers built around them, with a compact rectangular courtyard surrounded by a large number of rooms. Ways of using courtyards in the composition of architectural complexes. The construction of ensembles in the architecture of Central Asia goes back to IV-II centuries BC. Jonboz castle town of early antiquity can be considered as the first built ensemble in Central Asia. Here, the central straight main street divides the city in half, residential neighborhoods and public buildings are densely located in half of it, and at the end of the street there is an architectural ensemble (it is believed that there was a sacred fire). VLVoronina wrote that "in the composition of this city, we will assemble a first-rate ensemble". In his opinion, the "Var" type fortresses written in the book of fire worshipers "Avesta" can also be included in the initial ensemble type. Studying the compositional structure of Central Asian structures, we see that the courtyard component was represented as the main element in them until the 9th-10th centuries. As a central element of the composition, usually, a murabba', that is, any large room or area with a square layout, was considered. Around this room there are a number of small and large murabba' or oblong rooms. As one of the oldest and exemplary of such buildings, we can give an example of the residence of Namazgoh, dated to the second millennium BC. MQ Akhmedov conventionally called this compositional method in architecture "volume in space". The main element of the composition is a courtyard surrounded by a room, building or structure. The buildings of the architectural ensemble with the composite structure of "volume in space" are materially designed for vertical ventilation, and spiritually for observation (viewing) from the surroundings. The second direction of the composition of buildings in Central Asian architecture, which is necessary for hot climate conditions, is the "volume space" method. Architectural ensembles built in this direction not only form a square or stage, but also originate from the purpose of creating a comfortable microclimate in this square and stage. The best example of an ensemble in monumental architecture is a "double" style ensemble. It is based on the opposite arrangement of two volumes of the same or different sizes on one axis, with the high gables of the buildings pointing towards each other. Although the buildings themselves are similar in appearance, but different in composition, harmony and mutual proportion are observed here. Buildings are separated by a smaller square or a simple street. In a way, it perfected the idea of a two-yard madrasa or mosque. Here, the spatial connection is determined not only by the large arches of the porches between the two porches, but also by the connection of the streets leading to it. Amir Temur Jame' Mosque and Bibi Khanim Madrasah are the most exemplary examples of this system. A different version of the "double" ensemble is the combination of two courtyards (for example, the Madrasah of Muhammad Sultan in Samarkand and the Khanaqah). In civil architecture, an ensemble around a pool, and in the architecture of a garden avenue, ensembles of the "stable" type have appeared. In the hot climate of Central Asia,

ponds were considered a favorable opportunity to create a microclimate. In addition to being a source of drinking water, the pool was also a source of microclimate, willow, poplar, maple, elm and mulberry trees were planted around the pool, and platforms and stages were arranged. The arrangement of courtyards in ensembles is closely related to their location, history of development, and the intended purpose of building buildings (for example, the center of a city or neighborhood, a shrine outside the city or in the countryside, etc.). In the development of architectural ensembles in the 16th and 17th centuries, we see that more open space was used instead of the courtyard. In this, the buildings were built on three or four sides, and special attention was paid to the location of the main axes. In this case, the field played the role of the initial element forming the ensemble. But the buildings and their surroundings, in turn, formed the spatiality of that square.

Conclusion

In residential buildings, courtyards have become an integral part of buildings since the 9th century. Due to the formation of the courtyard as the main architectural component, the dwellings began to be called "courtyard" in the vernacular. Yards outside - inside; divided into farm, living and technical yards. In the conditions of dense urban construction, yards are vertically zoned: farm yard on the 1st floor, residential yard on the 2nd floor. Two types of courtyards were used in public buildings:

- courtyards surrounded by buildings and rooms;
- courtyards surrounded by buildings and walls.

In madrasas, Friday mosques, and caravanserais, the yard is surrounded by a building on four sides, and the rooms are ventilated through the yard. Although the main purpose of such courtyards is to create a microclimate, they have the opportunity to create a comfortable architectural space that matches the function of the building isolated from the external environment. The composition of the yard was also widely used in the creation of architectural complexes-ensembles.

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