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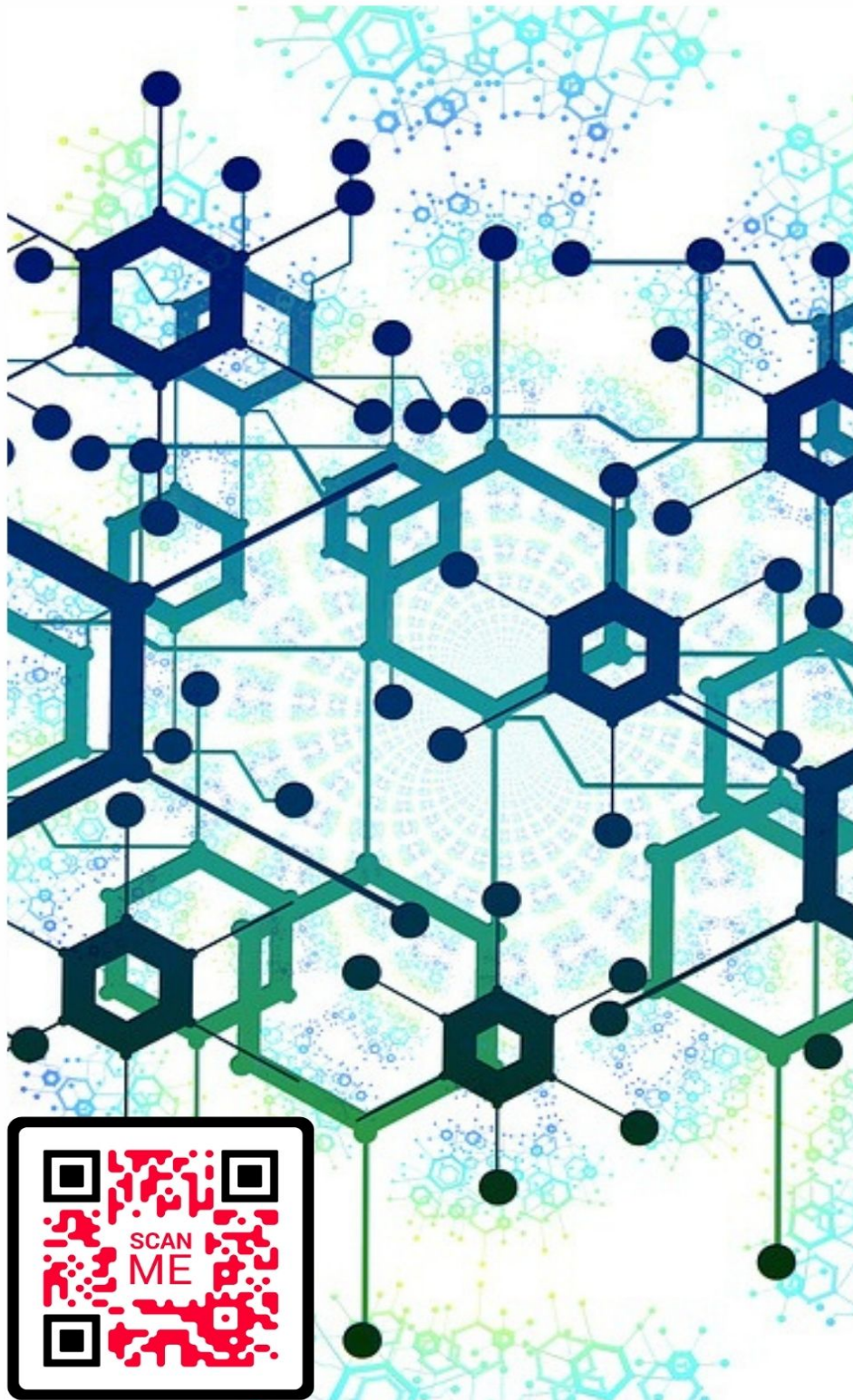
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Exploring Historical Traditions in Spatial Planning for Multi-Family Residential Buildings

Menjelajahi Tradisi Sejarah dalam Perencanaan Tata Ruang untuk Bangunan Tempat Tinggal Multi-Keluarga

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Abstract

This study delves into the intricacies of spatial planning solutions for various types of residential and public buildings, highlighting a complex workflow in their design. Focusing on multi-family residential buildings, the research primarily considers economic factors during the design process. Specifically, it explores Uzbekistan's unique historical tradition in constructing residential buildings, offering insights into two distinct versions - national and European. Notably, these buildings predominantly feature separate courtyards. Through a comprehensive analysis of goals, methods, results, and implications, this study contributes valuable knowledge to the global discourse on architectural design and spatial planning.

Highlights:

- The study explores the complexity of spatial planning solutions for residential and public buildings.
- Economic considerations play a crucial role in the design of multi-family residential buildings.
- Uzbekistan's historical tradition in residential construction reveals unique architectural features.

Keywords: Planning Solutions, Residential Buildings, Architectural Design

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Introduction

After Uzbekistan gained independence, there has been a significant increase in the development process in the socio-economic sphere. As the cultural level and material well-being of the population of the republic grow, so does the demand for its activities, sports, entertainment and other institutions focused on public service.

Each type of residential and public buildings has its own spatial planning solution, the design of which reflects a rather complex workflow. Therefore, highly qualified architects with extensive experience are involved in the development of residential buildings, who know the specifics of the formation of architectural and planning solutions, the scale of which is formed under the influence of external natural and climatic conditions and internal complex functional and technological processes.

Currently, low-rise and multi-storey residential buildings are being built in many urban district centers of the republic, which are provided to residents of the republic.

The standards of residential premises have different volumes, layout and number of floors. The correct definition of the number of floors of structures, spatial planning structure are important both from an architectural and economic point of view [1].

The construction and design of residential buildings in accordance with the requirements of modernity allows us to solve socially significant tasks. This creates decent living conditions for people.

The choice of floors. The design of apartment buildings is carried out primarily taking into account economic factors. These include, in particular, the need to install elevators, garbage cans and other elements. They significantly increase the cost of designing a residential building and work on its construction. Structures up to 5 floors are not equipped with elevators, and in the northern and southern regions-up to four. In such buildings, rational walls, foundation structures, and coatings are used. 4-5-storey buildings are being built mainly in medium-sized, small, partially large cities with a population of no more than 250 thousand people, as well as in settlements with a population of 10 thousand or more people. This ensures the rational use of the territory, engineering networks, and transport [2].

Methods

The geographical environment of the formation of any dwelling has certainly had a great impact. For example, in houses built on the north side, they tried to protect the interior of the apartments from the cold from the outside, while on the south side the opposite was required: the houses had to be protected from heat and overheating. It was also necessary to harmoniously combine the interior of the house with the external environment. Thus, on the basis of conflicting requirements, the structure (structure) of the northern and southern houses arose, completely unlike each other [3].

National culture and traditions have also influenced the structure and diversity of dwellings. Despite the fact that the dwellings in the south with the same climate resemble the same thing, they changed depending on the historical culture and customs of the local residents. Therefore, the traditional settlements of the Uzbek people have adapted to their climatic conditions, level of culture and traditions and artistic traditions.

The construction of residential buildings in Uzbekistan has its own historical tradition. The houses were built in two versions -national and European. These houses were mostly houses with private courtyards. Houses adapted to the conditions of the area have been built in each region of Uzbekistan. These houses are divided into three types: Bukhara houses, Ferghana and Khiva styles. divided: Bukhara houses were very poorly developed during the feudal period and were dense buildings that were built upside down on the street, that is, in a courtyard separated from the street, the rooms were one- or two-story, densely built around the courtyard, and thus much better and cooler climatic conditions were created in the courtyard conditions are better than in the hot and dusty air of the street. [4].

Khiva houses are also built in the form of a closed spatial environment, that is, around a courtyard, its difference from houses in Bukhara is that in its history. There are two different porches here. These verandas were located opposite each other, and the porch facing north was higher, and in summer the wind blowing from the north was directed into the courtyard, creating cool air in the courtyards. On the other hand, Ferghana houses originated in the picturesque valleys of Ferghana and acquired a closed character. In its historical solution, it did not have a courtyard and was oriented to the gardens through the porch. In the Ferghana Valley, the porch served as the main room during the summer months. In the Ferghana Valley and Tashkent region, the verandas were glazed, and verandas of this type were called the exterior, and residents lived on this veranda all year round [5].

Results and Discussion

A. Results

The requirements that must be taken into account when choosing housing and apartments are as follows: [6]

- a. demographic composition of the population;
- b. customs and crafts of family members;
- c. construction site;
- d. natural climatic conditions of the construction site;
- e. equipment-the condition and conditions of the construction base.

When choosing housing for each city, region, district and village, different quantitative ratios of the population living in them are taken, depending on its demographic composition. The demographic composition of the population of our republic, of course, differs from the indicators of other countries. The annual population growth in Uzbekistan is 3%.. Large families are especially common among the rural population [7]. Dwellings, depending on the method of settlement, are divided into two groups divided into:

1. Living quarters divided into apartments, which will be designed to accommodate families in separate apartments.
2. On the other hand, living quarters divided into rooms are mainly designed to accommodate single people in separate rooms using common household services. These dormitories are home to single workers, students, students of vocational schools and boarding schools. In addition, aliens, travelers and vacationers live in hotels and holiday homes. The buildings belonging to the two groups have similarities in their architectural and historical features, which are characterized by the similarity of their functions, functions, as well as the uniformity of the requirements of the residents. The most common multi-apartment residential buildings make up the main housing stock of cities and villages [8].



Figure 1. *Room Layout*

B. Discussion

Depending on the method of land use, apartment buildings are divided into:

1. In residential buildings with a courtyard, the owner of the house or apartment is also the owner of the courtyard of the house. Residential buildings with courtyards can be single-family and with adjacent courtyards, that is, with two or more apartments, and each apartment has a separate courtyard.

2. Residential buildings with a common ground level are residential buildings that are being built in cities of a common communal type, both multi-apartment and predominantly multi-storey. The ground level is used by all households or those who live in a group of households. This type includes houses with a room-by-room division [9].

Conclusion

According to the number of floors, residential buildings are divided into two main groups: visa-free (1-5 storey) and elevator (6-16 storey and above) residential buildings.

1. Low-rise buildings have 1-2 floors, and these houses will be distributed mainly in rural areas. Houses of this type, not only in villages, but also in cities, have not lost their importance at the present time.

2. Medium-rise houses have 3-5 floors and consist of residential buildings with a common staircase, but without an elevator. Such dwellings are very common in cities, where they are considered economically advantageous in construction. Apartment buildings have 6-9 floors and, in addition to the common stairs, must have elevators for their vertical connections. From the point of view of the economics of construction, houses are more expensive than medium-rise houses, but they allow you to accommodate more residents at ground level. Therefore, houses of this type are the main residential buildings for large cities.

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