

The Main Factors Affecting the Formation of the Residential Environment

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ABSTRACT

In the article the main requirements and factors influencing the formation of settlements in the conditions of Uzbekistan are highlighted. The social factor is the level of housing provision of the population, lifestyle; In population demography, population size, growth, sex, family size and types; Human outlook, national and ethnic values, role of color and texture in residential aesthetics; The division of the republic into regional climatic zones, seismic map; Urban development factors reflect the location, appearance, architectural, artistic and morphological features and functional structure of the dwellings.

Introduction

Today, there are many requirements and factors in the design of housing, including: social, demographic, aesthetic, climatic, urban planning, structural, engineering and economic.

Social requirements: Man tries to satisfy his spiritual and family needs while building a residential house. Therefore, it is not only a shelter, but a spatial solution of the residential area directly connects it with human life. They also reflect national, cultural and household customs, artistic ceremonies, etc. The formation of the settlement is deeply influenced by the social system and social currents. In a word, "house"-residence should meet not only architectural, functional, technical, but also social requirements. When considering its essence, the concept of "space": apartment, house, neighborhood, district, etc. The housing system fully reflects the hierarchical structure of society:

1. Individually - a functional zone, a separate space of the apartment.
2. Family group - rooms for family group.
3. Family - residence (house).
4. Community of neighbors - house, residential complex.
5. Urban community - residential place, city, metropolis, etc.

All dwellings have a number of common social functions:

- ✓ Health of residents (implemented by fulfilling sanitary and hygienic requirements).

- ✓ Family harmony, creating a psychological atmosphere in the family (taking into account the planning of the house).
- ✓ Facilitating family development (type of family, number of children in the family, etc.).
- ✓ Organization of time after work (inside and outside the house).
- ✓ Child education (from household to urban scale).
- ✓ Conditions for recreation (family and collective).
- ✓ Environmental protection (ecology).

These functions, in turn, must be specific to the spatial environment. For example, an office in the apartment, a place for individual activities, dividing the apartment into active and quiet environments with zoning, etc. With this, social (factor) functions are gradually absorbed into the structure of the house, complex, district, city. The above-mentioned social functions are of a large scale for a person and can be absorbed only by a residential area. Therefore, government decisions and programs are aimed at providing housing to every person and family. Another thing to note is that the level of provision of housing according to the standard norm in our country was 7 m^2 per person in 1960-70, and then it was 9 m^2 per person in the 80s.

Variants are designed to meet all the needs and wishes of a family with a level of housing provision of $12\text{-}15 \text{ m}^2$ /person. The level of development of the family does not require additional housing when the marginal areas of high housing availability are $16\text{-}18 \text{ m}^2$ /person.

The level of housing provision is considered important, but not the primary factor that improves the quality of housing. This norm does not depend only on the size of the apartment, the number of living and auxiliary rooms, the rational organization of family life. The architect should place a large-scale residential social model in his project and give it a volumetric and spatial context.

"Lifestyle" (image) means the wide-scale way of life of the inhabitants, urban and rural life, and all kinds of general differences in it are taken into account. In addition to production, ethnic status, traditions, national customs, household, people's interests and household management are important in its composition. "Lifestyle" is the primary factor for design, and it is approached from a domestic perspective. In modern conditions, the types of living are developed in the domestic direction and are spent mainly in the house, including: sleep, food, household cleaning, cultural, creative, recreation, children's education and life, communication (discussion, communication, etc.). Together with this, a growing and developing society and people's spiritual requirements, lifestyle inside and outside the residence - "residential environment" is architecturally interpreted.

Every poorly designed thing in the residential environment (furniture, equipment, outdoor sports and other structural steps) hinders the growth and development of the community. The perfection of the integrity of the residential environment is accepted by the architectural decision as a social model of the dwelling.

Population demography and housing stock structure.

What we mean by demographics is population size, growth, gender, age, and number, size, and composition of families. Population statistics are important in residential design. Statistical data on population living in rural and urban areas is published every year, and it is possible to plan the development projects of our rural and urban areas based on it.

In the development of the housing fund, the age and sex composition of the population is important, and it is closely related to the typology of the housing and the apartment. In our country, women make up a little more than 50% of the total population, and this is considered close to the norm. The aging of the population is of great importance and is mainly observed in large industrialized cities, this indicator was 15% in the 1970s and 22-25% in the 2000s. . Today,

taking into account these changes, special typological groups are emerging (boarding schools, boarding schools, nursing homes). But in most cases, our seniors prefer to stay in the family with their children and relatives, and for them, a new type of apartment, i.e. an apartment designed for 3 generations, has appeared.

Another influencing factor in residential design is the level of education of the population, which is increasing day by day. As the level of education of the population increases, there will be a demand to engage in work, educational, scientific and creative activities in households.

It is impossible not to take into account the size of the family in the design of housing, because it is of great importance in the organization of the typology of the apartment. According to statistical data, the structure of the family in the country is as follows:

Family composition (person)	1	2	3	4	5	6
As a % of the total population	9	19	28	27	13	4

But in rural areas, these indicators can be different, large families can be 6 people and high 14-15%. The composition of the family is another main factor, and several types can be found. For example: Family with nuclear family (couple) or single person; Family with and without children: complete and incomplete families; a couple with their children either with their family, or with their father, or with a relative; there can be families consisting of one or more generations.

According to researchers, there are about 500 types and types of families in our society, mainly 36-40 types of families are more common, and it is necessary to design dwellings based on this.

Residential aesthetics. A perfectly organized architectural environment affects human emotions, worldviews and actions. An expert architect or person who says he will build with his own hands takes into account his time and folk culture in his imagination, collects information about the construction of the house and analyzes its direction, decorations and architectural solution. The appearance of a residence as a product of expert creativity depends on the history of architectural styles and directions.

Residential aesthetics has deep national and ethnic values. "Russkaya Derevnya", German Bruger House, Japanese People's House in the settlements of Khorezm, Bukhara, Samarkand or other countries reflect the unique artistic outlook of each nation.

The aesthetic level of the dwelling depends on several objective factors of the architectural creation: urban development environment, natural-climatic conditions, volume-spatial solution of the house, structural scheme, construction material and construction technologies.

The use of color and texture in the creation of housing has a rich tradition. The role of the color is big, it reduces the heating of the wall, if you use clear shades of blue, you can distinguish the architectural details and compositional elements with the color texture. It will be possible to show the plasticity of styles in the color process. The color composition is not only in one house, but it forms a general color together with the surrounding houses, and it is important to distinguish small districts and neighborhoods with color, and in urban planning, the same accent and rhythmic sequence can be created with color and composition.

Natural and climatic conditions. We cannot create a healthy and aesthetic environment without taking into account the natural and climatic conditions, which depends on the architecture of the building, its spatial functional organization, the choice of construction materials, etc. significantly affects k. An example of this is folk houses, which are based on different natural and climatic conditions created everywhere.

Natural-climatic conditions primarily include: temperature, humidity and wind regime, level of solar radiation, seasonal variation in weather, etc. All these conditions collectively affect people

and housing differently in different conditions.

The regions of Uzbekistan are divided into zones according to natural climatic conditions. This general indicator, of course, divides Uzbekistan into mountainous, dry and desert regions, and the weather differs from each other.

The climatic indicators of these places were developed by the Tashkent Institute of Zonal Scientific Research and Experimental Design, and the territory of Uzbekistan is divided into 3 parts:

Part 1 is characterized by cold and long winters and cool summers. This includes Karakalpakstan, Khorezm and the northern part of Bukhara region.

Part 2 includes the main agricultural and industrial regions, namely the Fergana Valley, Tashkent and Samarkand regions. These regions are characterized by mild winters and hot summers. These are very large and densely populated regions.

Part 3 includes regions with very hot summers, short winters and milder climates. A hot southerly wind often blows here. The temperature rises to 45-50 degrees. Due to the fact that there are many hot days in this region, it is difficult to avoid heat naturally.

For these parts, which are different from each other, it is necessary to create a unique natural project. In the same districts and regions of Uzbekistan, the earth moves frequently and violently. Earthquake up to 9 points leads to limitation of many construction projects and use of anti-earthquake methods. Therefore, a seismic map of earthquakes in the territory of Uzbekistan was developed. This map shows how many points each district and region will enter the division. Designing and building residential and public buildings, taking into account the natural climatic conditions and earthquakes of Uzbekistan, creates many difficulties for architects, but creates an opportunity to embody unique traditions in architecture.

Urban planning factors. The following are the most important ones: the size and location of the construction area, the conditions of appearance of the residential house or complex, the architectural-artistic and morphological characteristics of the construction environment and its functional structure. All these have an active influence on the construction of settlements.

Location and dimensions. It can be built on the basis of restoration in historical cities. It can be built in new cities, on highways, on the basis of the system of neighborhoods or as a complex, in administrative-community centers.

In the design practice, it is mainly carried out in Uzbekistan as a small district and residential area, taking into account the requirements of the SNK, taking into account the number of residents, the number of floors of houses and climatic indicators.

In developed foreign countries, residential areas are being built with small neighborhoods, residential complexes or individual houses. This approach is spreading in terms of recovery. Conditions of perception of residential landscape view. The perception of the residential landscape is the reflection of the belonging of the buildings to this place in the architecture of the buildings, and it also obeys the surrounding spatial environment.

The information-aesthetic potential of buildings includes: the overall shape, the combination of large sizes of styles, details, color, texture of surfaces, etc.

For residential design, the morphology of the surrounding construction is the geometry of the plans, the size or the spatial space occupied by the buildings. As we know, every city has historical buildings and places, so our new constructions require unique solutions. Buildings and complexes located in historic centers should be oriented to support the geometry, dimensions and elements of that environment, and in some places these elements may be returned.



An example of the close formation of a residential building with the morphology of the historical environment.

The number of floors of buildings is of great importance. In order to preserve the heritage of architecture and urban planning, the limited height of the newly built objects is determined, the storey may be limited, and when the landscape or architectural monuments are illuminated, compositional and other aspects should be taken into account.

In addition to the above-mentioned factors related to the specialty of the architect, there are the following factors that influence the formation of a residence:

1. Constructive system of housing and construction methods
2. Engineering equipment of residences
3. Construction materials and items used in housing
4. Economic requirements and savings.

Modern analysis of these factors by individual experts is required.

References:

1. Ubaidullaev H.M., Inagamova M.M. "Typological basis of design of residential and public buildings". - Textbook. Tashkent: 2009.

2. Lisitsian V.M., Pronina E.S. Architectural design of the building. Uchebnik., - M.: Architecture-S, 2014.
3. ShNQ – 2.07.01–03. Urban planning. Development and construction planning of urban and rural settlements.
4. ShNQ - 2.08.01-19. Residential buildings.
5. Mirziyoyev Sh.M. PF "On the measures to hold the international crafts festival", Tashkent city, October 3, 2019, PF-5841-issue.1 p.