

THE SIGNIFICANCE OF SOCIAL FACTORS IN THE ARCHITECTURAL DESIGN OF HOUSING IN UZBEKISTAN

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Annotatsiya

Maqolada O'zbekiston shaharsozlik amaliyotida yangi turar joy binolarini loyihalashda **ijtimoiy omillarni hisobga olish zarurati** yoritilgan. Tadqiqotda oilaviy tuzilma, yashash mentaliteti, kundalik ehtiyojlar, "studio" turidagi xonadonlar mosligi hamda funksional va madaniy talablar tahlil qilingan. Natijalar aholining turmush sifati, an'anaviy qadriyatlar va me'moriy yechimlar o'rtasidagi bog'liqlikni ko'rsatadi. Mualliflar zamonaviy "**human-oriented design**" tamoyillarini milliy xususiyatlarga uyg'unlashtirish zarurligini ta'kidlaydilar. Maqola ilmiy manbalar, me'yoriy hujjatlar va mahalliy tajribalar asosida tayyorlangan.

Abstract

The article highlights the necessity of considering social factors in the design of new residential buildings within Uzbekistan's urban planning practice. The study analyzes family structure, lifestyle mentality, daily needs, the suitability of "studio" apartments, and both functional and cultural requirements. The results reveal the interconnection between the quality of life, traditional values, and architectural solutions. The authors emphasize the importance of integrating modern "human-oriented design" principles with national characteristics. The article is based on scientific sources, regulatory documents, and local architectural experience.

Kalit so'zlar

turar joy arxitekturasi, ijtimoiy omillar, inson markazli dizayn (human-oriented design), yashash sifati, funktsional rejalashtirish, an'anaviy va zamonaviy uy tiplari, oila tuzilmasi va madaniy qadriyatlar, urbanizatsiya jarayoni.

Keywords

residential architecture, social factors, human-oriented design, quality of life, functional planning, traditional and modern housing types, family structure and cultural values, urbanization process.

Introduction. In the context of rapid urbanization in Uzbekistan, the construction of new residential buildings has significantly accelerated. However, it is essential to consider the social and cultural needs of the population throughout this process. If housing projects do not correspond to local lifestyles and family structures, a decline in living quality and dissatisfaction among residents may emerge [1]. For instance, the standardized tipovoy apartments introduced in Uzbekistan during the Soviet period did not take into account the traditional multi-generational composition of Uzbek families [2]. Families typically lived in extended household structures, whereas standard apartment designs did not accommodate this model (Stronskiy, 2012) [1]. As a result, many Uzbek households found it difficult to adapt to small apartments and preferred to build private courtyard houses instead [3]. Soviet architects even maintained that “cities should not adapt to the customs of their inhabitants; rather, the population must adapt to the conditions of new Soviet cities” [1], which demonstrates a disregard for local socio-cultural factors.

In contemporary independent Uzbekistan, significant attention is being paid to avoiding such mistakes in residential construction. State policy aims to increase the average residential floor area per capita in cities from 16 m² to 20 m² by 2030 (Aripov, 2019) [4]. This initiative seeks to improve the size and comfort of housing units and to alleviate problems related to the need for larger living spaces for families. The average household size in Uzbekistan remains relatively large – approximately five persons per dwelling (World Bank, 2020) [5], meaning that most families are multi-child or multi-generational. Therefore, the adaptation of residential architecture to the needs of the population is a highly relevant issue.

This article examines how social factors are being considered in the design of newly constructed residential buildings. The following criteria constitute the main focus:

Daily household needs: the presence and convenience of essential spaces such as kitchens, storage rooms, and wardrobes;

Cultural and family lifestyle: characteristics of Uzbek families, including having multiple children, hosting guests, and the need for spacious living rooms;

Suitability of studio-type apartments: the degree to which open-plan one-room apartments align – or fail to align – with traditional family lifestyles;

Architectural solutions that meet functional, cultural, and domestic needs: identification of modern design approaches that correspond to local customs and patterns of life.

Materials and Methods. A qualitative research approach was employed in this study, involving the analysis of multiple sources. First, contemporary scientific literature and research articles related to housing issues in Uzbekistan were reviewed (for example, see: Rakhmatillayeva, 2025). In addition, local regulatory documents—particularly national construction standards for residential buildings (Urban Planning Standards, such as ShNK 2.08.01-2019)—were examined with attention to their social requirements [7]. Government documents and official information related to urban planning policy (including materials within the Urbanization Concept) were also analyzed. Furthermore, sources reflecting public perceptions and cultural practices were considered, including historical works (e.g., Stronskiy, 2012) and discussions presented in mass media.

Based on the collected materials, conclusions were drawn regarding the extent to which the four key social criteria mentioned above are reflected in the design of residential buildings. The Results section presents the findings identified for each criterion, while the Discussion section provides a deeper examination of their implications, highlighting shortcomings and potential improvements.

Results. According to the collected data, the degree to which social factors are considered in the design of newly constructed residential buildings in Uzbekistan can be summarized as follows:

Daily household needs (kitchen, storage, wardrobe):

In most contemporary apartment designs, a separate kitchen area is included, and minimum dimensional standards are observed (for example, the minimum kitchen width is at least 1.7 m when equipped on one side, and 2.2 m when equipped on two sides) [7]. This ensures sufficient space for household appliances and convenient food preparation. However, in some compact projects, kitchens are combined with the living room in a studio-type layout, which is less compatible with the traditional functional role of the Uzbek kitchen.

With regard to storage (kladovka) and wardrobes: in standard apartment layouts, dedicated storage rooms are rarely provided, and residents often rely on overhead cupboards or balconies. Nevertheless, improved-class housing projects may include separate utility storage rooms and wardrobe spaces, as permitted by construction norms [7]. Thus, while such daily needs are conceptually acknowledged, their practical implementation varies depending on the category of housing (standard or higher-comfort).

Main Part. Lifestyle and cultural patterns (large families, hospitality traditions, size of the living room):

Uzbek families are typically large—one household often includes several children and, in many cases, multiple generations living together. Although newly constructed multi-storey buildings mostly offer 3–4-room (2–3-bedroom) apartments, this is often insufficient to provide separate rooms for all members of a large family. For example, an average household of five people requires at least three bedrooms—one for parents and separate rooms for children; however, many apartments in practice have only two bedrooms, resulting in a need for an additional child's room. According to local regulations, higher-comfort residential units should aim to provide each family member with a separate room (with a recommended 23–30 m² of total living area per person) [7]. These regulations also recommend including separate guest rooms (hall/living room) and separate rooms for children [7].

Such planning principles reflect social traditions in Uzbekistan—hosting guests in a dedicated space and raising children in their own rooms. The width of the main living room is also important: standards require a minimum of 3 meters, but in many cases families prefer larger halls for receiving guests. In some new residential complexes, this need is addressed by combining adjacent apartments or designing wider living rooms during the planning stage.

In summary, Uzbek lifestyle patterns—large families and strong hospitality traditions—are partially taken into account in current housing design, but not yet to a fully satisfactory extent.

Suitability of studio-type apartments:

In recent years, some new residential complexes in Uzbekistan have begun offering studio apartments (integrated kitchen, living, and sleeping areas). Developers often promote these open-plan “Euro-style” units as a “new urban lifestyle.” However, both research and public opinion indicate that studio-type apartments do not align well with Uzbek family life.

Family size: Studio apartments are usually designed for single occupants or couples, not for families of five people. For a typical Uzbek household, they are too small.

Functional inconvenience: Combining kitchen and sleeping areas is regarded as unsuitable for traditional cooking practices. Odors, oil fumes, and heat spread throughout the apartment. For example, preparing national dishes (such as palov or fried meals) without a separate kitchen can create discomfort.

Privacy and cultural values: Uzbek families prefer to keep sleeping areas private, especially when hosting guests. In a studio apartment, guests can see the family's personal space, which contradicts cultural norms.

Therefore, the market for studio apartments remains limited—mainly for single young residents or short-term rentals for foreigners, but not as a priority option for traditional Uzbek families. This pattern is confirmed by housing market observations and academic research (e.g., Z. Rakhmatillayeva's analysis of over 80 one-room apartment plans in new Tashkent housing complexes) [6].

Conclusion: Since studio apartments are not compatible with local family lifestyle, their expansion remains limited and they do not reduce the demand for traditional multi-room layouts.

Architectural solutions tailored to functional, cultural, and domestic needs:

The analysis shows that architects and urban planners today are making efforts to integrate design solutions that reflect the lifestyle and traditions of the local population. National construction norms (ShNK) require several socio-functional conditions: for example, new residential complexes must ensure proximity to social infrastructure facilities (schools, kindergartens, markets), allocate spaces for playgrounds, recreational areas, and green zones. Ground floors of multi-storey buildings may be planned for social and everyday services (shops, cafés, etc.), enabling residents to meet daily needs within short walking distance [8].

At the architectural level, some modern projects introduce shared semi-private courtyard-like spaces reminiscent of traditional Uzbek *hovli* (courtyard houses). In some complexes, additional event rooms or community meeting spaces are planned for family gatherings. Other solutions include wide balconies, duplex apartments, or the possibility of merging adjacent apartments—offering additional space for large families.

Inclusive design principles are also being implemented: newly built multi-storey buildings typically include elevators and barrier-free access for people with disabilities (ramps, wide doorways), in accordance with ShNK 2.08.01-2019.

Overall, contemporary housing design attempts to reinterpret certain elements of the traditional Uzbek home (such as the guest hall, courtyard, and storage room) within a modern multi-storey environment, aiming to satisfy functional, cultural, and domestic needs.

Analysis. The findings above demonstrate that there has been significant progress in adapting residential architecture in Uzbekistan to local social and cultural needs; however, a number of challenges and contradictions remain.

Historically, housing that did not reflect the local lifestyle and family structure failed to function effectively or was rejected by residents. For instance, multi-storey apartment blocks constructed in Tashkent in the 1960s according to Soviet standards proved inconvenient for the hot climate and large households. As a result, many residents attempted to move to suburban areas and build traditional courtyard houses. In one-storey standardized houses, families eventually constructed extensions and developed inner courtyards, thus adapting the buildings to multi-generational living [3]. This demonstrates cultural adaptability: when official planning ignores social factors, residents themselves modify housing to fit their needs.

At present, both regulatory documents and contemporary architectural practice are taking steps to prevent such problems.

Daily needs: In new residential projects, minimum kitchen and bathroom dimensions are strictly defined, and ergonomic layouts for household appliances are recommended, indicating a higher level of design attention. Nevertheless, in many standard apartments there is still no separate storage or wardrobe room, resulting in balconies or corridors being used for storing household items. A possible solution, already suggested by several experts, is to introduce a mandatory requirement that each apartment – even with a small floor area – include a compact storage corner or wardrobe space.

Lifestyle and family structure: Regarding large families, there is still no systemic architectural approach. Developers attempt to solve the issue indirectly by offering apartments of different sizes (1–4 rooms), but large families must either purchase more spacious units or buy two adjacent apartments and combine them, which depends on household income. State housing programs now offer preferential mortgage rates and subsidies for large families, supporting access to larger dwellings. However, an additional architectural solution is flexible planning: apartments should be designed so that spaces can be divided or expanded as family composition changes. For example, a large living room could later be partitioned into two smaller rooms, or – conversely – two adjacent bedrooms could be merged during family gatherings. Although such flexible layouts remain conceptual and rare in practice, this direction could shape future residential architecture that aligns with Uzbek family lifestyle.

Studio apartments: The analysis confirms that forcing studio-type layouts into Uzbek family life has little positive outcome. Instead, studios are mostly used as short-term housing for single young professionals, students, or foreigners. Large families prefer traditional layouts with separate bedrooms and kitchens – even in

small units—rather than open-plan studios. The housing market reflects this: construction companies primarily advertise 2–3 room apartments, while studio units are offered in limited quantities, often redesigned as “Euro-two” layouts (a bedroom plus a living-kitchen zone) [9].

A culturally suitable adaptation of small units may involve modular or semi-partitioned layouts—e.g., sliding doors, stronger ventilation, and functional zoning. Some design companies employ such methods, but overall, traditional separated-room layouts remain more suitable for family households.

Functional and cultural appropriateness:

Current urban planning policy in Uzbekistan aims to create a residential environment that matches local living standards. One example is the use of the mahalla concept: historically, the mahalla is a socially cohesive structure based on close neighbour relationships and mutual support. In new multi-storey housing complexes, this spirit is preserved through the mandatory development of playgrounds, recreational spaces for the elderly, sports zones, and green areas [8]. These shared spaces strengthen neighbour interaction and improve social wellbeing.

In cultural terms, some projects incorporate national ornaments and architectural motifs into façades and interiors, creating a sense of familiarity and psychological comfort for residents [10].

Such design decisions increase attachment to place and enhance the feeling of “home.”

Overall, the analysis shows that residential buildings designed with social and cultural considerations result in higher quality of life, greater resident satisfaction, and long-term sustainability. Conversely, if housing is developed solely based on economic or standardisation priorities—ignoring lifestyle needs—buildings may remain physically durable but become socially obsolete, meaning they are not in demand and feel uncomfortable for users. Therefore, contemporary global architecture increasingly follows the principle of human-oriented design. In Uzbekistan, this principle must be integrated with national traditions to create a unique and context-appropriate architectural model.

Conclusion. In conclusion, the issue of incorporating social factors into the design of residential buildings in Uzbekistan is becoming increasingly relevant, and noticeable progress is being made in this direction. The findings of this study show that:

Daily household needs (kitchens, storage rooms, wardrobes) are formally recognized in many new projects; however, some practical shortcomings remain.

Even standard-class apartments would benefit from dedicated storage areas, which would improve residents' quality of life.

Lifestyle and family structure—large families, hospitality customs, and the cultural preference for spacious rooms—are taken into account by designers, yet current construction still does not fully satisfy the needs of all households. The demand for large, multi-room apartments remains high.

Studio apartments have been confirmed as unsuitable for the traditional Uzbek family lifestyle. Their role remains limited, mainly serving singles or short-term tenants. Therefore, family-oriented multi-room layouts will likely remain the dominant model.

In terms of functional, cultural, and household solutions, a number of achievements can be observed: national construction norms require the creation of comfortable residential environments (playgrounds, social infrastructure, and green areas), while certain projects introduce innovative approaches such as flexible partitions and shared community spaces inside residential complexes.

As a recommendation, future housing projects in Uzbekistan should continue integrating modern scientific and architectural advancements with the country's rich cultural and architectural heritage. To enhance social adaptation in residential design, the following steps are crucial:

Target-oriented design: Each housing project should be based on a clear understanding of the target residents—their family size, daily routines, and cultural preferences.

Dynamic regulatory standards: Building norms should be regularly updated in accordance with real household behavior and lifestyle analyses.

Interdisciplinary collaboration: Sociologists, cultural anthropologists, and psychologists should be involved in the design process, as a house is not merely a physical structure, but a living space that shapes social and cultural wellbeing.

As highlighted in modern scientific literature, housing influences not only physical comfort but also emotional, cultural, and social wellbeing (recall Maslow's hierarchy of needs, 1943). Therefore, expanding socially adaptive and innovative housing models within Uzbekistan's current construction reforms will bring substantial benefits—not only to architectural quality, but to the overall prosperity of society.

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