

POST-INDEPENDENCE RESIDENTIAL ARCHITECTURE IN THE CITIES OF THE KHOREZM REGION: DEVELOPMENT AND PERSPECTIVES

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Abstract

This article examines the transformation of residential architecture in the cities of Khorezm during the years following Uzbekistan's independence. Focusing on mid- and high-rise residential buildings, the study analyzes how traditional architectural principles have interacted with modern planning approaches. Using qualitative and descriptive research methods, including visual analysis and document review, the paper identifies key trends, challenges, and future development prospects. The findings highlight a gradual shift from traditional low-rise housing toward modern multi-storey residential complexes, while emphasizing the need to preserve local identity and ensure sustainable urban development.

Keywords: *Khorezm, residential architecture, post-independence period, mid-rise buildings, high-rise buildings, urban development*

Аннотация

В данной статье рассматривается трансформация жилой архитектуры в городах Хорезмского региона в период после обретения независимости Узбекистаном. Основное внимание уделяется средне- и многоэтажным жилым зданиям как важному элементу современного городского развития. В исследовании анализируется взаимодействие традиционных архитектурных принципов с современными градостроительными и проектными подходами. Методологическую основу работы составляют качественные и описательные

методы исследования, включая визуальный анализ архитектурных объектов, анализ нормативных и планировочных документов, а также изучение научной литературы. Результаты исследования показывают, что в городах Хорезмского региона наблюдается постепенный переход от традиционной малоэтажной застройки к современным многоэтажным жилым комплексам. При этом подчеркивается необходимость сохранения региональной архитектурной идентичности и внедрения принципов устойчивого развития в перспективном жилищном строительстве

Ключевые слова: *жилая архитектура, Хорезмский регион, период независимости, среднеэтажная застройка, многоэтажные жилые здания, градостроительное развитие, архитектурная идентичность*

Introduction

Since gaining independence in 1991, Uzbekistan has experienced significant socio-economic and cultural changes, which have strongly influenced urban development and architectural practices. In particular, the cities of Khorezm have undergone notable transformations in residential architecture. Traditional housing forms, shaped by climatic conditions, cultural values, and local construction techniques, are increasingly complemented by modern mid- and high-rise residential buildings.

The study of post-independence residential architecture in Khorezm is important for understanding how national identity, modernization, and globalization intersect in the built environment. This article aims to analyze the architectural development of residential buildings in Khorezm cities after independence and to identify перспективные (future-oriented) directions for their sustainable development.

The main objectives of the study are:

- to examine the characteristics of traditional residential architecture in Khorezm;
- to analyze changes in mid- and high-rise residential buildings after independence;

- to identify current challenges and future development prospects.

Literature review

Recent studies provide a foundation for understanding the trajectory of residential architecture in post-independence Uzbekistan and specifically in the Khorezm region. Abdullaev (2015) outlines the broader shift from traditional building practices toward modern construction techniques across Uzbekistan, emphasizing the cultural tensions that arise during this transition. Bissenova (2018) and Saidov & Ernazarov (2019) document post-Soviet urban transformations and housing policy changes that have driven increased multi-storey construction and altered planning priorities across Central Asian cities.

Regional studies offer localized insights relevant to Khorezm. Rizaev (2016) and Yuldashev (2014) examine climatic adaptation strategies and courtyard housing traditions, respectively, highlighting vernacular responses to arid conditions and social needs that have shaped historical residential layouts. Khakimov & Tursunov (2017) analyze recent regional design features and point to a growing prevalence of standardized mid-rise typologies in Uzbekistan's provinces, including Khorezm.

Policy and sustainability perspectives are provided by UN-Habitat (2016) and Makhmudov (2020), which stress the importance of integrated urban planning, energy efficiency, and the need for resilient housing strategies in rapidly urbanizing contexts. These studies collectively indicate that while modernization delivers improved infrastructure and density efficiency, there is a consistent call in the literature for design approaches that reconcile modern standards with local climatic, cultural, and spatial practices.

Moreover, comparative research on post-Soviet urban environments highlights recurring challenges such as the dominance of typified design solutions, limited public participation in housing development, and insufficient climate-sensitive planning (Bissenova, 2018). Such issues are also evident in the Khorezm context, where rapid construction has sometimes outpaced architectural quality control and contextual adaptation.

Methods

This research is based on a qualitative and descriptive methodological approach. The study focuses on mid- and multi-storey residential buildings constructed in Khorezm cities during the post-independence period.

The following research methods were applied:

- Architectural and visual analysis: examination of building forms, façades, materials, and spatial organization;
- Comparative analysis: comparison between traditional residential architecture and modern multi-storey housing;
- Document analysis: review of urban planning documents, architectural guidelines, and relevant academic literature;
- Case study approach: analysis of selected residential buildings in major cities of Khorezm.

These methods allow for a comprehensive understanding of architectural transformation processes and development trends in the region.

Results

The analysis reveals several key trends in the development of residential architecture in Khorezm after independence.

Firstly, there has been a clear increase in the construction of mid- and high-rise residential buildings, especially in urban centers. These buildings respond to population growth, land-use efficiency, and modern living standards.

Secondly, modern residential architecture increasingly incorporates contemporary construction materials and technologies, such as reinforced concrete structures, energy-efficient systems, and standardized layouts. At the same time, some design elements—such as decorative patterns, color schemes, and courtyard concepts—reflect traditional Khorezm architectural motifs.

Thirdly, the spatial organization of residential complexes has changed. Modern housing projects often include integrated infrastructure, such as parking areas, green

spaces, playgrounds, and commercial services, contributing to improved urban functionality.

However, the study also identifies challenges, including the risk of losing local architectural identity, insufficient consideration of climatic conditions, and limited application of sustainable design principles in some projects.

Discussion

The results of this study indicate that residential architectural development in the cities of the Khorezm region during the post-independence period reflects broader processes of socio-economic transformation and urban modernization in Uzbekistan. The transition toward mid- and high-rise residential construction is not only a response to demographic growth and housing demand, but also a manifestation of changing planning ideologies and state housing policies.

One of the key discussion points concerns the balance between modernization and regional specificity. While modern residential projects have introduced improved construction technologies, standardized layouts, and enhanced infrastructure, many of these developments tend to prioritize efficiency over contextual sensitivity. As a result, some residential complexes demonstrate limited adaptation to local climatic conditions, such as extreme summer heat and arid environments, which historically shaped traditional Khorezm housing forms.

Another important aspect is the issue of architectural identity. Traditional residential architecture in Khorezm was characterized by inward-oriented layouts, courtyards, passive climate-control solutions, and strong social functionality. The partial loss of these features in contemporary multi-storey housing raises questions about long-term social comfort and cultural continuity. The findings suggest that incorporating traditional spatial concepts into modern residential design could strengthen residents' sense of place and improve environmental performance.

From an urban planning perspective, the expansion of multi-storey housing has significantly altered the spatial structure of Khorezm cities. Modern residential complexes increasingly function as multifunctional urban units that integrate housing

with services, transportation access, and public spaces. However, the quality and consistency of such integration vary across projects, indicating the need for more coherent and context-driven planning frameworks.

Finally, the discussion highlights the relevance of international experience in sustainable residential architecture. Comparative studies from other regions demonstrate that successful housing development depends on the integration of modern technologies with local traditions and environmental conditions. In this regard, the Khorezm region possesses significant potential to develop a distinctive model of contemporary residential architecture that aligns modernization goals with regional heritage and sustainability principles.

Conclusion

This study has provided a comprehensive analysis of residential architectural development in the cities of the Khorezm region during the post-independence period, with particular emphasis on mid- and high-rise housing. The research demonstrates that independence marked a turning point in urban development, leading to significant changes in architectural forms, construction technologies, spatial organization, and planning principles.

The findings indicate that modern residential architecture in Khorezm has been shaped by a combination of socio-economic reforms, population growth, housing policies, and the adoption of contemporary construction standards. The expansion of mid- and multi-storey residential buildings has contributed to more efficient land use and improved living conditions in urban areas. At the same time, this process has revealed a number of unresolved issues, including insufficient adaptation to local climatic conditions, uneven architectural quality, and the gradual weakening of regional architectural identity in some projects.

An important conclusion of the study is that future residential development in the Khorezm region should not rely solely on standardized design solutions. Instead, it should incorporate traditional architectural principles such as climate-responsive planning, human-scale proportions, and the use of locally appropriate materials and

spatial concepts. The integration of these principles into modern housing design can enhance environmental sustainability, social comfort, and cultural continuity. Furthermore, the research highlights the necessity of strengthening urban planning strategies that prioritize sustainable development. This includes the implementation of energy-efficient technologies, the expansion of green and public spaces, and the development of comprehensive residential complexes with social and service infrastructure. Such an approach will support balanced urban growth and improve the overall quality of life for residents. In conclusion, the post-independence period has created new opportunities for the development of residential architecture in Khorezm cities. By combining modern architectural innovations with regional traditions and sustainable planning principles, future housing development can contribute to both the modernization of urban environments and the preservation of the unique architectural character of the Khorezm region.

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