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DEVELOPMENT OF A BARRIER-FREE ENVIRONMENT FOR PEOPLE WITH DISABILITIES IN THE HISTORICAL ARCHITECTURAL MONUMENTS OF UZBEKISTAN (A CASE STUDY OF THE GUR-E AMIR MAUSOLEUM)

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ABSTRACT

The creation of a barrier-free environment in historical architectural monuments has become one of the important issues in contemporary architecture and heritage conservation. This study examines the accessibility conditions of the Gur-e Amir Mausoleum, one of the most significant historical monuments in Uzbekistan, from the perspective of people with disabilities. The current state of the monument was analyzed, and the existing architectural and functional barriers affecting accessibility were identified. Based on international accessibility standards and universal design principles, scientific and practical recommendations were developed for adapting historical heritage sites while preserving their historical authenticity. The study demonstrates that accessibility improvements can be integrated into historical monuments without causing significant changes to their architectural value. The proposed solutions contribute to the development of inclusive tourism, social integration, and sustainable heritage management.

Keywords: barrier-free environment, historical monuments, cultural heritage, universal design, inclusive architecture, accessibility, Gur-e Amir Mausoleum, Uzbekistan.

INTRODUCTION

Ensuring equal participation of people with disabilities in social and cultural life is one of the priority objectives of modern society. Access to cultural heritage sites is recognized as a fundamental right under international human rights frameworks. Historical monuments not only represent valuable cultural assets but also serve as important educational, social, and tourism resources. Therefore, providing equal access to such sites has become a key challenge for architects, planners, and heritage conservation specialists.

Uzbekistan possesses a rich architectural heritage represented by historical cities such as Samarkand, Bukhara, Khiva, and Shahrisabz. Many of these monuments were constructed centuries before the emergence of modern accessibility requirements. Consequently, people with disabilities often face difficulties when visiting historical sites due to stairs, uneven surfaces, narrow passages, and insufficient information systems.

Among the most significant monuments of Uzbekistan, the Gur-e Amir Mausoleum occupies a special position as a masterpiece of Timurid architecture. However, despite its historical importance, several accessibility challenges remain unresolved. The purpose of this study is to identify these challenges and propose practical architectural solutions that ensure accessibility while preserving the monument's authenticity.

RESEARCH METHODOLOGY

The study employed historical-comparative, system analysis, observation, and comparative evaluation methods. International accessibility standards, UNESCO recommendations, and universal

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design principles were analyzed. Field observations of the Gur-e Amir Mausoleum were conducted to identify existing accessibility barriers and assess opportunities for adaptation.

THEORETICAL FOUNDATIONS OF BARRIER-FREE ENVIRONMENTS IN HISTORICAL MONUMENTS

A barrier-free environment refers to architectural, organizational, and technological measures that enable all people, including persons with disabilities, elderly individuals, pregnant women, and people with temporary mobility limitations, to access and use facilities safely and independently.

The adaptation of historical monuments should be based on the following principles:

• Minimum intervention;
• Preservation of historical authenticity;
• Reversible construction solutions;
• Application of universal design principles;
• Equal accessibility for all users.

These principles allow accessibility improvements without negatively affecting the historical significance of heritage sites.

ARCHITECTURAL CHARACTERISTICS OF THE GUR-E AMIR MAUSOLEUM

The Gur-e Amir Mausoleum was constructed in the early fifteenth century and represents one of the finest examples of Timurid architecture. The complex consists of a monumental entrance portal, courtyard, mausoleum building, and auxiliary structures.

Due to its historical development, the monument contains several physical barriers, including stairways, differences in floor levels, and uneven surfaces. These features create difficulties for wheelchair users and visitors with limited mobility.

ANALYSIS OF EXISTING ACCESSIBILITY PROBLEMS

The research identified several major accessibility challenges:

1. Architectural Barriers

The main entrance contains stairs that restrict independent access for wheelchair users. Certain circulation routes are also relatively narrow.

2. Lack of Tactile Navigation

There are no tactile pathways, guidance strips, or navigation systems for visually impaired visitors.

3. Limited Information Accessibility

Braille information boards and audio guidance systems are absent within the complex.

4. Inaccessible Sanitary Facilities

The number of universally accessible sanitary facilities is insufficient for visitors with disabilities.

PROPOSED ARCHITECTURAL AND TECHNOLOGICAL SOLUTIONS

To improve accessibility while preserving the historical appearance of the monument, the following solutions are proposed:

• Installation of removable ramps;
• Introduction of vertical lifting platforms;
• Development of tactile guidance systems;
• Implementation of Braille information panels;
• QR-code-based audio guide systems;
• Creation of 3D virtual tours and digital accessibility services.

RESULTS AND DISCUSSION

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The findings indicate that accessibility improvements can be integrated into the Gur-e Amir Mausoleum without significantly affecting its architectural integrity. The proposed interventions support both heritage conservation and social inclusion objectives.

The research also demonstrates that similar approaches can be applied to other historical monuments in Uzbekistan, including Registan Square and the Shah-i-Zinda Complex.

SCIENTIFIC NOVELTY

The scientific novelty of the study lies in the development of an integrated model for creating a barrier-free environment in historical architectural monuments while maintaining compliance with heritage conservation requirements. The proposed model combines universal design principles with cultural heritage protection strategies.

CONCLUSION

The creation of a barrier-free environment in historical architectural monuments represents an important direction in contemporary architecture and heritage conservation. The case of the Gur-e Amir Mausoleum demonstrates that accessibility improvements can be implemented without compromising historical authenticity.

The proposed architectural and technological solutions contribute not only to the preservation of cultural heritage but also to the development of inclusive tourism and equal access to cultural resources. The findings may serve as a methodological basis for future accessibility projects in historical monuments throughout Uzbekistan.

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