

ARCHITECTURE AS A MIRROR OF THE ERA AND A FACTOR IN SHAPING THE AESTHETIC SELF-CONSCIOUSNESS OF GENERATIONS: FROM ANCIENT CIVILIZATIONS TO NEW UZBEKISTAN

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Abstract

This article examines architecture as a product of the historical development of society and, at the same time, as an active factor in shaping an individual's artistic and aesthetic consciousness. Drawing on the source materials, the evolution of architectural thought is systematized from the earliest civilizations, Antiquity and the Middle Ages to the Renaissance, Baroque, Classicism, the Industrial Age, Modernism, Postmodernism, and twenty-first-century architecture. It is demonstrated that the worldview, religious beliefs, social organization, scientific knowledge, technologies, and aesthetic ideals of each generation determined the scale, composition, structure, and image of buildings, while the built environment, in turn, consolidated values, patterns of behavior, and collective memory. Particular attention is paid to Central Asia and the territory of present-day Uzbekistan: ancient settlements, Islamic architecture, the heritage of the Samanids, Karakhanids, and Timurids, the development of Tashkent in the nineteenth and twentieth centuries, and contemporary practices combining national tradition with innovation. The significance of the heritage of great ancestors, science, craftsmanship, and architectural culture for educating the new generation of Uzbekistan is substantiated. Contemporary environmental and behavioral studies confirm associations between lighting, scale, natural elements, acoustics, spatial organization, and emotional well-being, attention, and social interaction. The article concludes that architectural heritage should be regarded as an educational and formative resource, while contemporary architecture should serve as a means of preserving cultural identity under conditions of globalization.

Keywords: Architecture, architectural environment, aesthetics, self-consciousness, artistic and aesthetic culture, cultural identity, Central Asia, Uzbekistan, architectural heritage, Timurids, Modernism, neuroarchitecture, new generation of Uzbekistan.

Introduction

Throughout history, architecture has been not only a means of organizing the material environment but also a distinctive “chronicle in space.” It recorded human conceptions of the world, power, faith, beauty, order, nature, and one’s own place in society. Changes in architectural styles therefore cannot be explained solely by the emergence of new materials and structures: behind each era stood a particular type of person, a way of life, a system of knowledge, and specific aesthetic expectations. The source material is appropriately based on the principle of reciprocal influence: society shapes architecture, while architecture affects human behavior, emotional states, aesthetic taste, and cultural values [6].

This relationship is particularly evident in Central Asia. Natural and climatic conditions, the scarcity of timber and stone in a number of areas, the development of irrigated agriculture, the Great Silk Road, shifts in religious and political systems, and, later, industrialization and modernization created a multilayered architectural culture. Contemporary Uzbekistan simultaneously inherits ancient urban-planning traditions, Islamic architecture, Timurid monumentality, the experience of the nineteenth and twentieth centuries, and the latest searches for a national architectural form. The architectural environment may therefore be regarded as an important mechanism of historical memory and the education of a new generation.

In the earliest societies, architecture was initially subordinated to the task of survival. Climate and available materials determined the form of dwellings: timber was used in forested regions, stone in mountainous areas, and clay and mud brick in arid regions. With the transition to settled life, construction became a collective activity and the settlement an expression of social organization. The emergence of temples, palaces, defensive walls, and irrigation systems meant that space no longer merely protected people; it also expressed hierarchy, religious beliefs, and society’s capacity for collective labor.

Egyptian monumentality developed from ideas of eternity and sacred authority; the Mesopotamian city from the needs of governance, defense, and the relationship between the temple and economic life; and the cities of the Indus civilization demonstrated the value of engineering order and sanitary organization. Thus, the aesthetics of ancient people was not an autonomous sphere of art but an integral part of their worldview. The scale of the pyramid, the stepped form of the ziggurat, the

axial composition of the temple, and the regularity of streets cultivated a sense of order and belonging to a particular civilization.

In Central Asia, developed centers of Bactria, Sogdiana, and Khorezm had already emerged in antiquity. Afrasiab, Toprak-Kala, Ayaz-Kala, Varakhsha, Dalverzin-Tepe, Kampyr-Tepe, Nakhshab, Sangir-Tepe, Uzunkir, and other monuments demonstrate a combination of defensive, economic, religious, and artistic functions. Pakhsa and mud brick were not signs of technological weakness: local builders created effective thick-walled structures, vaults, towers, and courtyards adapted to the climate. Architecture became a carrier of collective memory and reinforced the idea of the city as a protected, organized, and culturally significant space.

Antiquity introduced a different emphasis—the idea of the human being as the measure of space. Greek orders, proportions, the agora, theatre, and gymnasium shaped an understanding of harmony among the body, reason, and public life. Rome developed the engineering dimension of architecture: roads, aqueducts, forums, thermae, basilicas, arches, vaults, and concrete transformed architecture into the infrastructure of a vast state. Through Hellenistic contacts, certain compositional and decorative principles penetrated Bactria and Sogdiana, but they were adapted to local materials and climatic conditions. One example of such cities on the territory of Uzbekistan is Alexandria (Kampyr-Tepe). This capacity not merely to copy but creatively to reinterpret external influences subsequently became one of the enduring characteristics of the region's architecture.

During the Middle Ages, architecture in many regions became a spatial expression of a religious worldview. In Europe, Romanesque massiveness emphasized protection and stability, while Gothic verticality and light expressed spiritual aspiration. In the Islamic world, a different path of artistic expression was formed by geometry, calligraphy, vegetal ornament, the rhythm of arches, the dome, the iwan, and the courtyard. The reduced role of monumental figurative sculpture strengthened the importance of mathematical order and decorative surfaces.

Central Asia became one of the centers of this development. The Great Silk Road facilitated not only the exchange of goods but also the circulation of knowledge, construction techniques, and artistic ideas. The Samanid Mausoleum in Bukhara demonstrates how a single material—fired brick—could function simultaneously as structure and ornament. During the Karakhanid period, portal-and-dome systems, minarets, and decorative brickwork were further refined. In the fourteenth and

fifteenth centuries, under Amir Temur and the Timurids, architecture became an important component of the state's cultural program: monumental ensembles, pishtaqs, double-shell domes, mosaics, majolica, and epigraphy created the image of the capital as a center of power, knowledge, and artistic craftsmanship.

Samarkand demonstrates particularly clearly the interrelationship between architecture and intellectual culture. Registan, Bibi-Khanym, Gur-e Amir, Shah-i Zinda, and Ulugh Beg's Observatory represent different functions—education, religion, memorial culture, and science—yet together they shape the image of the city as a space of knowledge. UNESCO characterizes Samarkand as a crossroads of world cultures and notes that its ensembles played a significant role in the development of Islamic architecture from the Mediterranean to the Indian subcontinent [25]. Shahrissabz, associated with Amir Temur and the Timurids, is likewise recognized as an example of architecture that profoundly influenced the region [24].



Reconstruction of the medieval city of Shahrissabz, 14th–15th centuries. Residence of Amir Temur. Ak-Saray Palace.

From the book KESH. Author: N. V. Gilmanova.

The significance of the great ancestors for architectural culture cannot be reduced solely to the commissioning of buildings. Al-Khwarizmi, Al-Farabi, Abu Rayhan al-

Biruni, Abu Ali ibn Sina, Mirzo Ulugh Beg, and other scholars created an intellectual environment in which mathematics, geometry, astronomy, optics, medicine, and philosophy were understood as interconnected fields of knowledge. The architecture of this civilization rested on a highly developed culture of calculation, proportion, and craftsmanship. The Ulugh Beg tradition is especially important for contemporary education: the observatory and madrasa remind us that monumental architecture can be not only a symbol of power or faith but also a symbol of scientific inquiry. For the youth of New Uzbekistan, such heritage presents the ancestor not as an abstract historical figure, but as a scholar, creator, and bearer of responsibility for the future.

The European Renaissance restored the human being to the center of architectural theory, but at a new scientific level. Brunelleschi, Alberti, Leonardo da Vinci, and Palladio linked architecture with mathematics, perspective, mechanics, and the study of the classical heritage. The aesthetic ideal of the era was based on proportionality, clarity, and the capacity of human reason to comprehend the laws of the world. The architect gradually evolved from a craftsman into a universal specialist—an artist, engineer, and researcher. For European self-consciousness, this signified the affirmation of the creative individual and the rational organization of space.

Baroque architecture of the seventeenth and eighteenth centuries used architecture as an emotional theatre: curvilinear forms, chiaroscuro, perspectival effects, monumental staircases, and squares were intended to impress and engage the individual. Classicism, by contrast, expressed the ideals of the Enlightenment—order, symmetry, discipline, and civic rationality. Universities, museums, libraries, theatres, and administrative buildings became architectural institutions of the new society. In Central Asia, the direct influence of the European Renaissance and Baroque was limited; however, in the nineteenth century, through the Russian Empire, the influence of regular planning and the Classicist typology of public buildings increased. In the cities of the Turkestan region, traditional mahallas came to coexist with new rectilinear streets and administrative and educational buildings.

The Industrial Revolution radically transformed architecture. Iron, steel, glass, reinforced concrete, factory production, and railways created new types of spaces—railway stations, factories, arcades, large markets, and multistory housing. The aesthetics of society became increasingly shaped by speed, machinery, efficiency, and mass production. Architecture trained people to live at a more intensive pace, use

infrastructure, and organize everyday life according to schedules and functional zoning.

Twentieth-century Modernism made functionality and structural logic the foundation of architectural language. Its social dimension was exceptionally important: mass housing, schools, hospitals, universities, and cultural institutions were intended to be accessible to broad segments of the population. Standardization, however, had a dual effect. It ensured speed and economy of construction, but could also lead to monotony, the weakening of local identity, and the emotional impoverishment of the environment. The history of Modernism therefore demonstrates that technological progress alone does not guarantee a fully developed aesthetic environment.

For Uzbekistan, Tashkent Modernism of the second half of the twentieth century is of particular significance. Following the 1966 earthquake, the reconstruction of the capital combined industrial technologies, earthquake-resistant solutions, landscaping, solar protection, and motifs of local artistic culture. In July 2026, the serial property “Tashkent Modernist Architecture. Modernity and Tradition in Central Asia” was inscribed on the UNESCO World Heritage List. UNESCO emphasizes that the ensemble demonstrates the adaptation of international Modernist principles to local climatic, seismic, and cultural conditions [26]. This provides an important contemporary argument that Uzbekistan’s heritage does not end with medieval monuments: twentieth-century architecture has also become part of national memory. Postmodernism emerged as a reaction to the universalism of Modernism. Architecture once again turned to historical memory, signs and symbols, local context, and a plurality of meanings. In the twenty-first century, these concerns have been supplemented by environmental sustainability, digital design, adaptive reuse, accessibility, and an orientation toward psychological comfort. The contemporary architect works not only with form but also with scenarios of human behavior, microclimate, light, acoustics, natural elements, and the social life of space.

Contemporary research confirms that environmental parameters can influence human states and behavior. A review of research on architectural stimuli demonstrates empirically observable psychological and physiological responses to specific characteristics of buildings [15]. A systematic review of emotions in architectural environments associates user responses with form, height, degree of enclosure, materials, and other visual-spatial properties [14]. A recent review covering 2014–2024 reports positive associations between adequate lighting, comfortable

temperature, air quality, access to nature, spatial flexibility, and attention, relaxation, motivation, and subjective well-being; at the same time, the authors emphasize that stronger longitudinal and experimental studies are required for rigorous causal conclusions [20]. Thus, the term “neuroarchitecture” is promising, but academic writing should avoid overly categorical claims: architecture affects people in interaction with culture, experience, social conditions, and individual differences.

Architecture, Aesthetics, and the Self-Consciousness of the New Generation of Uzbekistan

Architectural aesthetics affects the self-consciousness of generations through repeated everyday experience. A child or student perceives the city not as a collection of separate façades, but as a system of signs: what society considers worthy of preservation, which buildings it places at the center, how respectfully it treats the historic urban fabric, and what kind of school, university, library, park, or public square it creates. The quality of the architectural environment is therefore associated not only with comfort but also with the formation of ideas about the value of culture, labor, education, and public space.

For New Uzbekistan, the principle of continuity can become the foundation of contemporary architectural identity. This does not mean literally reproducing domes, arches, and ornament on new buildings, but rather engaging more deeply with historical principles: climatic adaptation, the courtyard as a social space, shade and water, human scale, quality craftsmanship, geometric culture, respect for the ensemble, and the connection between architecture and education. A contemporary building should speak the language of its own time while preserving cultural memory. State strategy likewise links the country’s development with the quality of human potential, education, and culture. The “Uzbekistan–2030” Strategy identifies the creation of conditions for realizing the potential of every individual as one of its priorities [10]. In 2026, the draft strategy “Youth of New Uzbekistan – 2030” was presented, separately identifying high-quality and inclusive education, the cultural and intellectual development of young people, youth infrastructure, and open participation [7]. In this context, the architecture of schools, universities, libraries, museums, youth centers, and public spaces should be regarded as part of educational and formative policy.

In practical terms, this means that architectural heritage should be more actively integrated into education: educational routes should be organized in Samarkand,

Bukhara, Khiva, Shahrissabz, and Tashkent; photographic documentation, sketching, model making, and digital models should be used; historic and contemporary buildings should be compared; and questions concerning the authenticity of restoration and the quality of new construction should be discussed. Such education transforms a monument from an “object for tourists” into a source of personal experience and civic responsibility. The preservation of culture thus becomes not a passive veneration of the past, but the capacity to understand its principles and creatively transmit them to the next generation.

Conclusion

Historical analysis reveals a persistent pattern: the architecture of each era is the materialized expression of the people of its time. Ancient societies created an architecture of protection, sacredness, and collective order; Antiquity-of harmony and civic life; the Middle Ages-of spiritual symbolism; the Renaissance-of humanism and scientific rationality; Baroque-of emotional impact; Classicism-of social order; the Industrial Age-of technology and mass production; Modernism-of functionality and social universality; and Postmodernism and the contemporary era-of plurality, identity, and environmental and psychological orientation.

Central Asia and Uzbekistan demonstrate their own trajectory of development, in which external influences were repeatedly reinterpreted in accordance with climate, materials, religious and philosophical ideas, and local artistic traditions. The most significant legacy of the great ancestors is not merely a collection of monuments, but a culture of creation—the integration of knowledge, engineering, art, craftsmanship, and social responsibility. Preserving this culture for a new generation means simultaneously protecting authentic heritage, studying it scientifically, incorporating it into the educational process, and creating high-quality contemporary architecture. Only through such an approach can historical memory become a resource for development, while the architecture of New Uzbekistan becomes a means of strengthening cultural identity, aesthetic taste, and responsible self-consciousness among young people.

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