



“ARCHITECTURAL STRUCTURES OF ANCIENT FORTRESSES: HISTORICAL ANALYSIS AND ARCHITECTURAL FEATURES”

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Annotation

This article analyzes the architecture of ancient fortresses, their structures, defensive and cultural functions, and the historical and regional differences in their architectural solutions. Special attention is given to the internal layout, walls, towers, gates, and water supply systems of major fortresses located in the regions of the Ancient East, Central Asia, and Uzbekistan.

Keywords: Fortress, architecture, defensive structures, architectural structure, ancient cities, Uzbekistan, archaeology.

Аннотация

В данной статье рассматриваются архитектура древних крепостей, их структура, оборонительные и культурные функции, а также исторические и региональные различия в архитектурных решениях. Особое внимание уделяется внутренней планировке, стенам, башням, воротам и системам водоснабжения крупных крепостей, расположенных в регионах Древнего Востока, Средней Азии и Узбекистана.

Ключевые слова: крепость, архитектура, оборонительные сооружения, архитектурная структура, древние города, Узбекистан, археология.

Annotatsiya

Mazkur maqolada qadimiy qal'alarining arxitekturasi, ularning tuzilishi, mudofaa va madaniy funksiyalari, shuningdek, arxitektura yechimlaridagi tarixiy va mintaqaviy farqlar tahlil qilinadi. Qadimgi Sharq, Markaziy Osiyo va O'zbekiston hududlarida joylashgan yirik qal'alarining ichki rejalashtiruvi, devorlari, minoralari, darvozalari va suv ta'minoti tizimlariga alohida e'tibor qaratilgan.

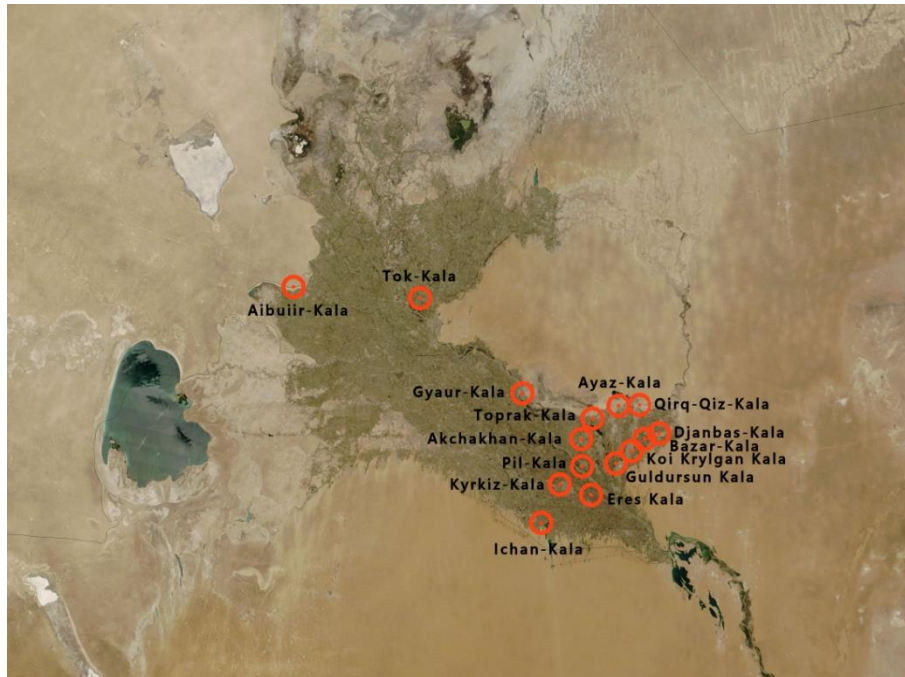
Kalit so'zlar: Qal'a, arxitektura, mudofaa inshootlari, me'moriy tuzilma, qadimiy shaharlar, O'zbekiston, arxeologiya.

Introduction

Ancient fortresses represent some of the earliest examples of urban and defensive construction in human civilization. Fortresses served not only as military defenses but also functioned as political and economic centers. Their architecture is the result of interactions over time, space, and civilizations.

Fortresses located in the territory of Uzbekistan (such as Ayazqala, Topraqqala, and the Ark Fortress) testify to the advanced development of architectural traditions in the region.

This article provides a scholarly analysis of the main structural elements of fortresses and their regional characteristics.



The Concept of the Fortress and Its Historical Context

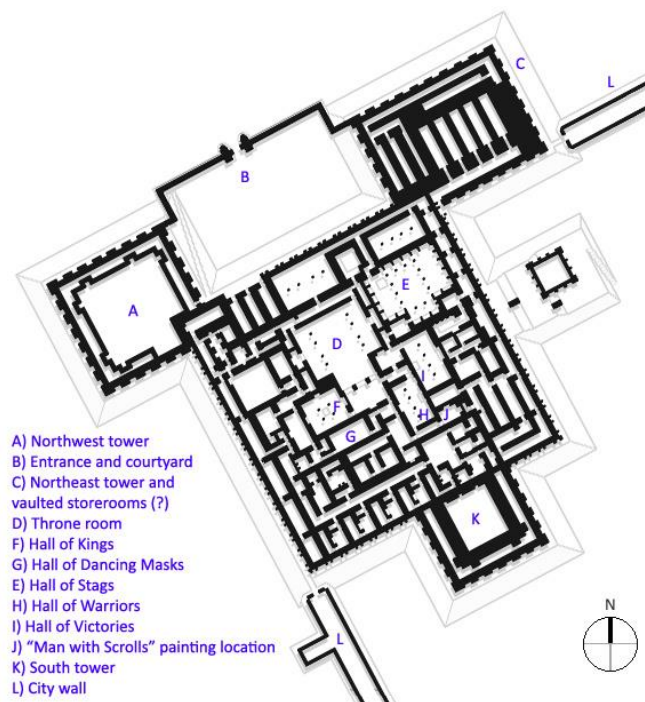
The word "fortress" (from the Arabic *qal'a* – fortified structure) originally referred to constructions built for defense but later evolved into political and administrative centers. Between the 3rd and 1st centuries BCE, fortresses became an integral part of urban culture in Central Asia.

The architectural structures of ancient fortresses generally consisted of the following key elements:

- Walls: Usually constructed from mudbrick or fired brick and served as the main defense against external threats. Some walls were built in two or even three layers (as seen in Ayazqala).
- Towers: Used for defense and observation. Towers were either round or rectangular in shape and could reach heights of 10–15 meters.
- Gates: The main entry points to the fortress, often flanked by towers and strategically placed for defense.
- Internal structures: At the center of the fortress were typically the ruler's palace, administrative buildings, storerooms, and temples (e.g., Zoroastrian fire temples).
- Water supply systems: Water was delivered to the fortresses through nearby canals, underground pipes, or covered cisterns (sardobas).

Regional Features and Differences

- Khorezm fortresses (Topraqqala, Ayazqala): Characterized by massive walls, internal and external defensive zones, and multi-story towers.



The Structure of the Topraq Qala Fortress

- Bukhara and Samarkand fortresses: Often formed the core of the city and were frequently integrated with structures like the Registan or the Ark. The integration between the city and the fortress was strong.
- Southern Uzbekistan (Kashkadarya, Surkhandarya): Fortresses in mountainous areas were adapted to the terrain and often worked in conjunction with natural barriers.

Architectural Solutions and Evolution of Fortresses

As fortress architecture evolved, their economic and administrative functions became more prominent alongside their defensive roles. While early fortresses were primarily constructed for protection, in later periods, their internal layouts transformed into central elements of urban culture.

Conclusion

Ancient fortresses in the territory of Uzbekistan are regarded as the result of high-level architectural and engineering thought. Their structures are deeply intertwined not only with military history but also with social and political life. Ongoing archaeological research allows for a deeper understanding of the organizational structure of ancient societies through the study of fortresses. In the future, digital reconstruction and virtual modeling will enable more extensive exploration of these structures.

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