Interdisciplinary Approaches to Deciphering the Complex History of Kesken-Kuyuk Kala: A Study in Medieval Central Asian Urbanism

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Abstract

This investigation explores Kesken-Kuyuk Kala, a medieval Eastern Aral region archaeological site, using scientific methodologies. Advanced topographical and stratigraphical surveys, planigraphy, C14 AMS radiocarbon dating, archaeological investigations of the city, its burial ground, and a detailed analysis of the ancient irrigation system have been employed.

Topographical surveys use geodetic equipment and unmanned aerial vehicles, generating detailed spatial data of the site's layout. Planigraphy contributes a microscopic view of architectural constructs, creating a comprehensive understanding of the spatial organization and architectural evolution.

Stratigraphical surveys examine layered structures within the city. Such data unravels various occupation phases, yielding a diachronic perspective on construction, habitation, and abandonment. Stratigraphical evidence serves as a foundation for interpreting historical response to sociopolitical changes.

Radiocarbon dating (C14 AMS) provides an accurate timeframe for unearthed artifacts, layers, and structures. This dating technique embeds the city's narrative within a broader chronology of Central Asian history, facilitating nuanced understanding of societal and cultural progression at Kesken-Kuyuk Kala.

Meticulous study of the ancient irrigation system includes cartographic analysis, excavation of canals, and radiocarbon dating of canal profiles. Such data yields insights into water management practices, agricultural strategies, and adaptive responses to environmental shifts.

In summary, a scientific approach delivers extensive understanding of Kesken-Kuyuk Kala's historical narrative. Findings contribute significantly to academic discussions on urban development, societal organization, and environmental adaptation strategies in medieval Central Asia, enriching understanding of the region's past.