

PAPER

STAGES OF THE FORMATION AND DEVELOPMENT OF FARMING CULTURE IN THE KHOREZM OASIS

Babayazov Umidbek Pulatovich^{1*}

¹ Urganch State University Teacher at the Department of History

* u.babayazov@gmail.com

Abstract

This article explores the stages of formation and development of agricultural culture in ancient Khorezm based on archaeological, natural-geographical, and cultural sources. It analyzes the evidence related to ancient riverbeds of the Amu Darya, irrigation systems, agricultural tools, and religious beliefs. The paper also highlights the socio-economic and cultural significance of agriculture in the historical development of society.

Key words: Ancient Khorezm, agricultural culture, irrigation system, Amu Darya, Kaltaminor culture, Avesta, archaeology

Introduction

Agriculture is regarded as a fundamental turning point in human history. This activity played a pivotal role in the transition from a nomadic lifestyle to permanent settlement, shaping several key stages of human development. Specifically, the emergence of labor division, the advancement of productive forces, the onset of early social stratification, and the formation of state structures are closely tied to the development of agriculture. The earliest forms of agriculture emerged in various regions of the world – Mesopotamia, Egypt, the Indus Valley, China, and Central Asia – almost simultaneously, yet each adapted to its specific geographical and climatic conditions. River valleys, such as those of the Nile, Tigris and Euphrates, Indus, and Amu Darya, were particularly significant as ancient agricultural centers where complex irrigation-based farming systems developed.

The Khorezm Oasis, in particular, stands out as one of the oldest agricultural regions in Central Asia. Here, an irrigation-based agricultural system can be traced back to the 4th–3rd millennia BCE. The natural riverbeds of the lower Amu Darya, ancient ditches and canal systems, agricultural tools, and archaeological sites found in historical sources serve as scientific evidence of this process. The expansion of irrigated lands, the increase in agricultural output, and the establishment of permanent settlements facilitated the formation of early socio-economic structures, cities, and political centers in this region.

Literature Review

The study of the history of agriculture in Khorezm relies significantly on the works of scholars such as Ya.G. Gulamov, B.V. Andrianov, A.D. Arkhangelsky, and B.I. Vaynberg. Ya.G. Gulamov's *History of Irrigation in Khorezm* provides a detailed analysis of irrigation systems from the 4th century BCE to the 6th century CE. B.V. Andrianov documented the development of irrigation systems through topographic expeditions, identifying ancient irrigation structures. A.D. Arkhangelsky examined geological changes in riverbeds, contributing to the understanding of environmental influences on agriculture. Additionally, the Avesta elevates agriculture to a sacred value, reflecting its cultural significance.

Methodological Framework

This scientific article was prepared using modern research methods, including historical-analytical, archaeological, comparative, and systemic approaches. These methodologies enabled a comprehensive analysis of the formation of ancient agricultural culture. Particular attention was paid to natural-geographical factors, ecological conditions, water resources, and soil characteristics, allowing for a stage-by-stage examination of the development of agricultural systems. The study reconstructed the early forms of irrigation-based agriculture in the ancient Khorezm Oasis using archaeological maps of irrigation systems,

remnants of ditches and canals, topographic layouts of irrigation structures, cultural layers, and archaeobotanical data. Furthermore, ancient written sources, including the Avesta – a sacred text of Zoroastrianism – and works by ancient historians such as Strabo, Herodotus, Pomponius Mela, and others, were thoroughly studied and analyzed as primary written sources. Through these methodological foundations, the research illuminated not only the technical aspects of agriculture – such as land cultivation, crop care, and harvesting technologies – but also its socio-economic and spiritual-cultural dimensions. Thus, the formation of agricultural culture in ancient Khorezm was examined not only as a development of material production but also as an integral component of social structure, religious worldview, and cultural identity, constituting one of the primary directions of this study.

Analysis

Agriculture is one of the pivotal activities that shaped the formation of human civilization, facilitating the transition from a nomadic lifestyle to permanent settlements, including the establishment of villages, towns, and cities. Through agriculture, humanity ensured food security, population growth, the division of labor, the emergence of social classes, and the foundation for political governance structures. Historical and archaeological studies indicate that agricultural culture emerged simultaneously in many ancient civilizations – Mesopotamia, Egypt, the Indus Valley, China, and Central Asia – each developing in unique ways depending on natural-geographic and socio-economic factors [2, p. 34].

The Khorezm Oasis, one of Central Asia's most significant agro-cultural centers, particularly due to its location in the lower reaches of the Amu Darya, enabled the development of an irrigation-based agricultural system from ancient times. The region's natural river movements, semi-arid climate, and proximity to surrounding desert areas (Karakum and Kyzylkum) meant that nearly all forms of agricultural activity depended on the Amu Darya and its ancient tributaries (Uzboy, Akchadarya, Sarykamyshe) [4, p. 39]. The existence of land cultivation and irrigation systems in the region since ancient times demonstrates the deep-rooted agricultural culture in Khorezm. Archaeological findings reveal that agriculture was practiced through ancient canals, water management structures, and agrarian settlements, the formation of which was directly tied to natural conditions and societal needs.

The development of irrigation systems in ancient Khorezm is a significant example of humanity's adaptation to agrarian activity and the rational use of natural resources. According to archaeological and geotopographic studies, the earliest artificial irrigation structures in this region were constructed between the 3rd and 2nd millennia BCE, utilizing the natural terrain to divert water from the Amu Darya.

Archaeological-topographic expeditions led by B.V. Andrianov identified clear traces of irrigation systems in the ancient Akchadarya and Sarykamyshe deltas of Khorezm. These structures were initially built in strategically located riverbank areas, designed to align with the natural terrain and redirect water flows. Though simple for their time, they were highly effective [7, p. 39]. These systems ensured a steady water supply to crop fields, supporting stable agricultural production.

Results

Over time, irrigation systems in Khorezm underwent significant improvements. In the earliest stages, shallow, narrow canals were constructed, adapted to the natural terrain. During the Bronze

and Early Iron Ages, these were deepened and enhanced with more complex technical structures [6, p. 82]. Archaeological evidence indicates that, starting from the 2nd millennium BCE, particularly in the eastern part of Khorezm, main irrigation canals stretching 200–300 kilometers were operational. These canals not only facilitated long-distance water transport but also laid the foundation for the formation of entire micro-oasis systems [3, p. 25]. The existence of these irrigation structures reflects not only the level of agricultural development in Khorezm but also the organizational and engineering capabilities of the society at that time.

Archaeological excavations in ancient Khorezm provide clear evidence of the tools used by early agricultural communities. For instance, finds from the Kaltaminar and Amirobod cultural layers include flat stone hoes, clay sickles, and knife-like tools made of copper and bronze, which were essential for plowing, sowing, and harvesting. Although initially rudimentary and roughly crafted, these tools became more refined, durable, and efficient starting from the Bronze Age. By the Iron Age, they had evolved into stronger, more specialized tools of various forms.

These material culture artifacts reflect not only the technical aspects of ancient agricultural practices but also their societal role. Agriculture was not merely a means of subsistence but an integral part of religious and spiritual values. This is vividly expressed in the Avesta. In Zoroastrian religious texts, Ahura Mazda, the god of goodness, is depicted as the divine entity who taught humanity agriculture. He is credited with planting wheat, herbs, and fruit trees, plowing the land, and irrigating it to make it fertile [1, p. 57]. The phrase “He who sows wheat sows righteousness” profoundly encapsulates the religious significance of agriculture. In Zoroastrianism, agriculture was viewed not merely as physical labor but as a symbol of truth and virtue.

In ancient Khorezm, farmers were regarded as a significant social group, not only economically but also spiritually and socially. They were the primary driving force of sustenance and were revered as promoters of religious values [5, p. 88]. Agricultural activity was considered a sacred profession within the broader social structure.

Conclusion

The agricultural culture in ancient Khorezm developed in close connection with the region's natural and climatic conditions, particularly the fertile valleys along the lower reaches of the Amu Darya, ancient riverbeds, and the gradual evolution of archaeological cultures (Kaltaminar, Amirobod, Tozabagiyab). The advancement of agrarian activity was facilitated by the establishment of artificial irrigation systems, their progressive modernization, and the simultaneous physical and technological improvement of labor tools, such as refined hoes and sickles, which enhanced efficiency. Notably, the agricultural system in ancient Khorezm evolved not only through material and technical progress but also in harmony with spiritual and cultural values. Under the influence of Zoroastrianism, agriculture was regarded not merely as a means of subsistence but as a sacred practice, symbolizing righteousness and divine order. This elevated the social status of farmers, positioning them as a leading force in the moral, religious, and economic life of society, fostering community cohesion.

Furthermore, archaeological findings, including canal remnants and tools, alongside written sources like the Avesta and the works of ancient historians such as Strabo, Hecataeus, and Herodotus, reveal that agriculture in the Khorezm Oasis reflected our ancestors' experience of living in harmony with the environment, their culture of rational water use, and their sophisticated methods of economic management, ensuring sustainable agrarian production.

The Khorezm Oasis distinguished itself not only through its unique irrigation systems, which supported expansive micro-oases, but also through its stages of socio-economic development. As one of the earliest agrarian centers in Central Asia, it played a significant role in the formation of ancient civilizations, contributing to urban development and political structures. These factors collectively provide a basis for viewing the Khorezm Oasis as a distinctive civilizational space in the history of agricultural culture, embodying a legacy of innovation and cultural integration.

Foydalanilgan adabiyotlar ro'yxati

1. Авеста. Избранные гимны. – М.: Восточная литература, 1993. – С.57.
2. Андрианов Б.В. Древние оросительные системы Приаралья. – М.: Наука, 1969. – С.34.
3. Артемьев И.В. Очерки истории ирригации в Средней Азии. – Т.: Изд-во АН УзССР, 1958. – С.82.
4. Архангельский А.Д. Геологические исследования в низовьях Амударьи. – М.: Наука, 1952. – С.39.
5. Бронникова Е.А. Аграрные культы древнего Востока. – СПб.: Изд. РХГИ, 2002. – С.88.
6. Вайнберг Б.И. Памятники куюсайской культуры. – М.: Наука, 1976. – С. 25.
7. Ғуломов Я.Ғ. Хоразмнинг суғорилиш тарихи. – Т.: Фан, 1964. – Б. 39.