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HISTORY OF THE GEOGRAPHICAL STUDY OF THE KHOREZM OASIS

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Abstract

This article covers the historical stages of the geographical study of the Khorezm oasis. From the analysis of written sources from the end of the 19th century to the complex archaeological, geomorphological and cartographic studies carried out in the 20th century, the issues of the natural and geographical development of the oasis, irrigation systems and the formation of riverbeds were analyzed on a scientific basis. In particular, the work of the Khorezm archaeological expedition led by S.P. Tolstov, and the approaches of researchers such as A.S. Kes, B.V. Andrianov, Ya.G. Gulyomov and V.I. Vayinberg have provided an in-depth study of the climate, water resources, ethnogeography and desertification processes of the oasis. Historical information about the Amu Darya flowing into the Caspian Sea through its tributary Uzboy is confirmed by archaeological finds.

Keywords: Khorezm oasis, geographical study, Amu Darya, Uzboy, Sarikamysh, Akchadarya, ancient irrigation systems, archaeological expedition, geomorphology, climate change, historical geography.

Introduction

The Khorezm oasis stands out as one of the most ancient and historically rich centers of civilization in Central Asia. Natural and geographical factors in this region, in particular, the formation of riverbeds, climatic conditions and irrigation systems, have long had a direct impact on the socio-economic activities of mankind. In particular, historical and geographical views on the changing course of the Amu Darya River and its flow into the Caspian Sea through its tributary Uzboy have been the focus of debate in scientific circles for many years.

The process of geographical study of the Khorezm oasis involves multi-stage, complex historical and scientific research. The research, which began at the end of the 19th century on the basis of the analysis of written sources, was enriched in the 20th century with complex archaeological, geomorphological and cartographic approaches, and shed light on the natural and geographical development of the oasis, the formation of river beds and the development of ancient irrigation systems on a deep scientific basis

Literature Analysis

The issue of geographical study of the Khorezm oasis has been discussed in scientific literature for many years. The first information about this oasis is found in ancient Eastern sources, including the Avesta, Abu Rayhan Beruni, and the works of ancient Persian, Greek, and Roman authors.

Beruni, in his work “Monuments of Ancient Peoples,” provided important information about the natural and geographical location of Khorezm, river systems, and flora and fauna..

At the end of the 19th and beginning of the 20th centuries, German scholars E. Zakhau, I. Marquardt, A. Herman, as well as the Russian orientalist V.V. Bartold began to conduct a philological and historical-geographical analysis of written sources about Khorezm. In particular, Bartold's scientific views on the Aral Sea and the lower reaches of the Amu Darya increased academic attention to this issue.

Methodological Foundations

In this study, the historical-geographical approach was chosen as the main methodological direction. This approach serves to identify the stages of development of the studied area based on written sources, archaeological finds, geomorphological analysis and cartographic materials. The degree of correspondence between written and physical-geographical sources is assessed using the comparative-analytical method. Using the geomorphological analysis method, the ancient beds of the Amu Darya and its tributaries, the formation of irrigation systems and the impact of climate change on human activity are determined. The historical-cartographic method is used to restore the ancient territorial structure of the oasis.

Analysis

In covering the historical geography of the Khorezm oasis, it is possible to shed light on the influence of natural conditions on human activity and social lifestyle by analyzing the natural geographical conditions of the area and the history of its study. The geographical study of the Khorezm oasis can be divided into the following stages:

Stage 1: Based on the study of written sources, the issues of localization of geographical names related to the territory were investigated. This covers the period from the end of the 19th century to the beginning of the 20th century.

Stage 2: The ideas put forward in written sources are compared with the results of archaeological research and the processes of geographical formation and development of the Amu Darya basin are determined. This was reflected in the research conducted in the 30s and 40s of the 20th century.

Stage 3: The Amu Darya and its tributaries were studied in a new complex archaeological-geomorphological manner. The aeromethod was widely used in this. The stages of the water supply processes of the Akchadarya, Sarikamysh, and Uzboy were determined. Such research continued in the 50s and 60s of the 20th century.

Stage 4: The ethnogeography of the steppe region has been studied. It is based on the fact that the main cause of tribal migration and drought is climate. It covers the 90s of the 20th century.

The geographical study of the ancient period of the Khorezm oasis began at the end of the 19th century with the study of the Avesta, Greek, Roman, and Persian written sources. The German scholar E. Zachau identified texts related to Khorezm by analyzing the data of the Avesta. I. Markwart, W. Tarn, A. Herman, N. Tomashek, and F. Altheim at the beginning of the 20th century raised the issue of the geographical location of the ancient Khorezm state based on the analysis of data provided in Greek and Roman sources.

This is the issue of "Greater Khorezm", which has been the subject of discussion for almost 100 years [14, p. 82-92.]. These issues were also studied by K. Inostransev, V. V. Bartold. V. V.

Bartold covered the history of the Aral Sea and the lower reaches of the Amu Darya from ancient times to the 17th century.

In the 1930s, members of the Khorezm archaeological expedition led by S.P. Tolstov carried out large-scale archaeological research in the oasis. The expedition was tasked not only with studying archaeological monuments, but also with studying the ancient irrigation system to prevent drought in the region and the natural geographical conditions of the lower Amu Darya regions in ancient times [6, p. 19.]. Along with archaeologists and historians, the XAEE also included geologists, geographers, geomorphologists, and soil scientists. At that time, due to the intensification of desertification processes in Central Asia, there was a need for a deep scientific study of the historical dynamics of the Amu Darya water. Initially, such research was carried out by L.S. Berg[2], K.K. Markov[8], S.P. Tolstov[13, p. 43–56.]. In S.P. Tolstov's works "Ancient Khorezm", "In Search of the Ancient Khorezm Civilization", and "The Ancient Sources of the Oks and Yaksarts", attention was paid to their geographical location and natural geographical environment when covering the irrigation systems of the Khorezm oasis in ancient and medieval times.

In his work “Ancient Khorezm”, published in 1948, S.P. Tolstov wrote that the life of the Khorezm oasis is closely connected with the waters of the Amu Darya, therefore, in studying the history of Khorezm, it is possible to find solutions to many historical puzzles by shedding light on the history of irrigation systems. The expedition members identified many fortresses by identifying the traces of riverbeds and artificial irrigation systems, shed light on the specific aspects of the social lifestyle of the population, and shed light on the issues of the social system by analyzing the achievements, problems and solutions of agricultural culture. The work describes the dynamics of the development of ancient irrigation networks, the reasons for their reduction, and the history of their redevelopment. A cartography of the irrigation system of the area between Tortkul and Sultanuizdag was created. These areas are called “ancient irrigated lands” and their geographical location is clearly indicated. It started from Tortkul and Shurakhon and spread out in a fan shape. It went from south to north, reaching the southern slope of Sultanuizdag and the Ayozkala and Kokcha hills on its eastern side. A description of the monuments found in the area of “Ancient Irrigated Lands” is given. At the same time, an analysis of information about the geography of Khorezm in written sources of the ancient and medieval periods is given. The ancient name of the Caspian Sea was “Khvalyn - Khvalis”, which was shown to be related to the word “Khorezm” and put forward the idea that it could have been called by this name because it was a leader in the shipping industry in the northern part of the Caspian Sea [12, C.16.]. The Pechenegs also justified this by calling the Khorezmians “al-Khovalis”. He linked the geographical regions of "Khwayrizem", Ayr'yanem Vaijo, Kankha, Urva, and Yuegan, given in the Mikhr Yasht-14 section of the Avesta, with Khorezm, and also analyzed Chinese and Pahlavi sources to substantiate this.

The results of archaeological research conducted in the lower reaches of the Amu Darya in the 1950s are presented in the work “Ancient Origins of the Oks and Yaksarts”, published in 1962. This work paid more attention to the issue of the Uzboy of the Amu Darya. Along with analyzing the history of its study, it also compared the description in written sources. It showed the beginning of the Uzboy activity, the levels of water supply in ancient and medieval times.

The members of the Khorezm archaeological expedition have extensively and clearly covered the formation of the Amu Darya and its tributaries, the Aqcha Darya, Sarikamish, the Aral Sea, the

Uzboy issue, the geographical classification of the Aral Sea basin, and the lower Syr Darya. The situation in these regions from the most ancient times to the middle of the 20th century, the processes of development by the population, and the processes of desertification are described in depth based on the analysis of written and archaeological data. The involvement of geographers and geomorphologists in this archaeological research work has led to a more in-depth approach to the issue.

The geomorphologist A.S. Kes, who worked in the Khorezm archaeological expedition, studied the natural geographical conditions of the lower Amu Darya region in different geological periods, the processes of formation and development of the anthropogenic landscape. The results of archaeological and geomorphological research carried out by him and other members of the expedition in 1950-1956 were reflected in the collective monograph “Lower Amu Darya, Sarikamysh and Uzboy (history of formation and development)” published in 1960 [9, C.363.]. As a result of archaeological and geomorphological research carried out in the region, the stages of water supply to the Akchadarya, Sarikamysh and Uzboy basins were determined. The issues of the connection of the Amu Darya with the Caspian Sea through the Uzboy basin were clarified. Geomorphological and archaeological maps of the Akchadarya, Sarikamysh and Uzboy basins were developed. These maps were of great importance in the scientific study of the region. These maps are still widely used today.

As a result of geomorphological studies, it was found that the Amu Darya riverbeds have changed their course several times. This was shown not only under the influence of natural processes, but also due to the filling of the riverbeds with silt, the formation of new riverbeds, and the increase in water consumption under human influence, that is, the creation of new water networks [10, C.344.]. As a result of human activity, the tributaries of the Amu Darya were blocked by dams, and researchers believe that for a long time the Amu Darya has been flowing into the Aral Sea through the Aral Bay riverbed. The work fully reflects the formation of the Amu Darya and its riverbeds, the periods of water supply.

Results

The most controversial issue among scientists in the geographical study of the Khorezm oasis was the issue of the Amu Darya flowing into the Caspian Sea, that is, the Uzboy basin. The Amu Darya flowing into the Caspian Sea was first given in Abu Raykhan Beruni's work "Monuments of Ancient Peoples". This idea was considered incorrect information for a long time. Research conducted in the Uzboy and Sarikamysh basins in the 50s of the 20th century scientifically substantiated the correctness of this idea written by Abu Raykhan Beruni and also shed light on the periods when the Uzboy was supplied with water. In the 4th - 3rd millennia BC. The Amu Darya was connected to the Caspian Sea through the Uzboy basin. Since the beginning of the 2nd millennium BC. There was no water flow there. At the beginning of the 1st millennium BC. the Sarikamysh delta began to be replenished with water. From the beginning of the 7th century BC, the Sarykamysh delta was flooded. This situation continued until the 4th–5th centuries AD[3]. Written sources record that ships sailed from Uzboy to the Caspian Sea during this period[11]. The constant flow of water into Uzboy ceased at the beginning of the 1st millennium BC. The waters of the Amu Darya began to flow northward into the Aral Sea.

The history of irrigation of the ancient Khorezm oasis was specially studied by Ya.G.Gulamov and B.V. Andrianov. In these studies, the geographical classification of the territory was described in the process of highlighting the directions of irrigation systems. In this regard, these scientific works are also of great importance in highlighting the geographical areas of the territory. In Ya.G.Gulamov's research work, issues related to the artificial irrigation system from the most ancient times to the 50s of the 20th century were studied. When analyzing the Amu Darya and its tributaries geographically, the scientist compared them with the information in the works of medieval authors and gave his conclusion. Abu Raykhan localized the geographical information given in Beruniy. The floods of the Amu Darya, their dangers, and how the population protected itself from these floods and effectively used them in agriculture are presented.

B.V. Andrianov's work "The System of Ancient Irrigation Structures of the Aral Sea" paid special attention to the natural conditions along the lower reaches and headwaters of the Amu Darya. It showed that each region had its own natural conditions and that the agricultural culture was formed on this basis. The lower reaches of the Amu Darya were surrounded by deserts, sharply continental, with extremely dry air, strong winds, and high water evaporation rates, and it was noted that in such natural conditions, only agriculture based on artificial irrigation could be formed [1, p. 96.]. It was shown that the dry climate on the Aral Sea was formed at the end of the Tertiary period.

V.I. Weinberg made a deep ecological and paleogeographic analysis of the Khorezm oasis from the 7th century BC to the 8th century AD, and also covered the historiography of each issue. His research work also covered the issues of the Amu Darya riverbeds, the Uzboy, the coastal areas of the eastern Caspian Sea, and the ancient riverbeds of the Syrdarya, summarizing archaeological research conducted in the second half of the 20th century. Special attention was paid to the issues of climate change in the Aral Sea regions. The locations and migration processes of various tribes living in the Khorezm oasis were also described. Geographical data were also analyzed based on information from written sources, and great attention was paid to ethnogeographic issues. A map of the Amu Darya riverbeds and a map of the geographical locations of ancient tribes were developed and attached to the work. V.I. Weinberg calls the lower reaches of the Amu Darya River Turanian Lowland, taking into account that the territory is geographically called the Turanian Lowland. Geographically, it includes the territories extending to the Caspian Sea in the west, to Central Kazakhstan in the east, to the Kazakh steppe in the north, and to the Kyzylkum and the outskirts of the Karakum in the south [4, p. 3.].

The concepts of Central Asia and Central Asia were defined, their geographical regions were explained, and issues such as the geographical coordinates of Central Asia, climate, flora, the basis of agriculture, fauna, flowing rivers, the uniqueness of the relief, and soil were analyzed. On this basis, it was shown that historical and cultural regions were formed in Central Asia. The paleogeography of the Amu Darya basins, the Aral Sea, Uzboy, and Sarikamysh regions was deeply analyzed. The issues of the time of water arrival in them and their development by humans were analyzed. The climate of the Aral-Caspian regions was reconstructed in 900-300 BC. It was argued that the process of nomadic tribes entering this region during these periods was due to changes in climate. During the Early Iron Age, as the climate along the Mediterranean became drier and the humidity in northern Eurasia increased, ancient Iranian tribes entered the territory of Central Asia. During this period, water increased in the Sarykamysh region of the Khorezm oasis, and there was also water in the Uzboy stream. Nomadic tribes from the surrounding areas settled

in this area, and nomadic tribes also appeared in Ustyurt. The Inkardarya on the lower Syr Darya was formed, and the Kuvandarya was formed in its place.

In the 4th-3rd centuries BC, due to the prevailing hot and dry climate, the northern Davdon tributary of the Amu Darya and the Kankha Darya dried up. During this period, the first migration of nomadic tribes from the territory of Kazakhstan to the Khorezm oasis was observed. The second major influx of nomads began in the 2nd century BC. Due to the drying up of the lower reaches of the Syrdarya, the Dakh tribes migrated to other regions. As a result of the political situation, the Yuezhi tribes that entered Central Asia moved not to the north, but to the south, occupying the territories of Bactria [5, p. 61.].

B.I. Weinberg argued that the landscape and fauna of the northern Aral Sea regions are related to climatic conditions. When the climate was dry and hot, drought began in the region, and the flora and fauna also decreased. Desert plants spread. On the contrary, during periods of high humidity and abundant precipitation, the landscape of this region underwent fundamental changes. The flora and fauna enriched. The border of the desert also changed. From the 4th century AD, the climate began to cool again, which created even more difficulties for the tribes living in the desert. The Sarikamysh and Uzboy basins dried up. The water level of the Tarim River in Central Asia dropped, and Lake Lobnor dried up. The scientist suggests that this process caused the Huns to migrate west. The research paper analyzed climate changes in ancient and medieval times and concluded that the climate was completely different from today.

Summary

In 2020, a collective monograph was published under the editorship of A.S.Sagdullaev, devoted to the problems of the formation and ethnic geography of historical and cultural regions in Central Asia [7, P.236.]. It covers the geography, cartography of monuments of the Stone, Bronze and Early Iron Ages, the development of culture in various natural geographical conditions, migrations and historical geography. The work covers the development of the Khorezm oasis, the activities of the Amu Darya ozans, and information from written sources.

The important results of archaeological research conducted in the second half of the 20th century in difficult conditions in the vast desert region are still being studied today, new ideas are being put forward, and problematic issues of the history of the Khorezm oasis are being resolved. The most important of these issues is the geographical study of the region, which extensively analyzes the formation of the Amu Darya and its tributaries, water supply processes, and the consequences of desertification.

References:

1. Andrianov B.V. Drevnie orostelnye sistemy Priaralya. - S. 96.
2. Berg L.S. Climate and weather. - M., 1947.
3. Weinberg B.I. Ethnography Turana v drevnosti. - S. 37; Pyankov I.V. Central Asia and the Eurasian steppe in ancient times. - S. 98.
4. Weinberg B.I. Ethnography Turana. - S.3.
5. Weinberg B.I. Ethnography Turana. - S. 61.
6. Ghulomov Ya.G'. Khorezm irrigation history. - B.19.

7. Formation of historical and cultural regions and problems of ethnic geography in Central Asia. Monograph. -T.: "Universitet", 2020. - B.236.
8. Markov K.K. Vysykhaet li Srednyaya i Tsentralnaya Asia // Ocherki po geografii chetvertichnogo perioda. - M., 1955.
9. Nizovya Amudari, Sarykamysh, Uzboy. The history of formation and Zaselenia. // MXE. Vyp. 3. - Moscow: Akademii nauk SSSR, 1960. - C.363.
10. Nizovya Amu-dari. - S. 344.
11. Strabo. XI, VII. 3
12. Tolstov S.P. Ancient Khorezm. - C.16.
13. Tolstov S.P. Ancient Khorezm. - S. 43–56.
14. Egamberdieva N.A Arxeologicheskie i arxeograficheskie issledovaniya istorii drevnego Khorezma. - S.82-92.