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SOME ISSUES CONCERNING THE ARCHAEOLOGY AND ECOLOGY OF KHOREZM FROM THE 10TH MILLENNIUM BCE TO THE END OF THE 6TH CENTURY BCE

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Abstract: This article explores the ancient period of ecological history, focusing on issues related to archaeo-ecology in the territories of the Khorezm oasis, based on archaeological materials.

Keywords: ecology, Neolithic, Eneolithic, Bronze Age, Iron Age, daily life of humans, economic activities, growth rates of productive forces, land geology, Amu Darya, Syr Darya, Kuvandarya, Uzboy, Sarykamysh region.

Contemporary researchers and specialists in the history of ecology analyze the history of human economic activities and regard the history of socio-ecological processes as the initial stage, represented by the hunting-gathering culture phase[1].

This stage covers the period from ancient times up to 10,000–8,000 years before the Common Era (BCE). It is known that in the earliest phase of human society, people initially relied on gathering and hunting for their subsistence over a long period. This situation reflects humanity's complete dependence on natural conditions and the availability of food resources. The transition of humanity to the agrarian culture stage in our oasis took place in the first millennium BCE.

The Neogene period, which spans approximately from 25 to 10 million years ago, was a significant phase in the geological history of the region, including the modern-day Aral Sea area and the Kyzylkum Desert. During this period, extensive lowlands formed in the region, which were part of ancient basins and plains. Later, during more recent geological periods, the Aral depression was flooded for the second time by the waters of the Caspian Sea. This transgression led to the deposition of thick layers of sand and clay on the seafloor[2].

The natural geographical map of Central Asia presents a diverse and colorful landscape, and its current natural geographical valuation is no exception. The Amu Darya plays a significant role in the formation of the basins of the Lower Amu Darya, Sarykamysh, and the western Aral Sea. According to geological research findings, the waters of the Amu Darya carry various sediments from its upper stream, forcefully covering the Surkhan oasis area before turning westward.

The Eastern Khorasan mountains, acting as a barrier, cause the Amu Darya to flow through Akhtam and Kelkar after passing the city of Karshi. During the early Quaternary period, it

[1] Прохоров Б.Б. Экология человека: эволюционный аспект /Эволюционная и историческая антропоэкология. - М., 1994. - С. 47-65.

[2] Баратов Н, Маматқулов М, Рафиқов А, Ўрта Осиё геграфияси.Тошкент, “Ўзбекистон”, 2002, 283 бет

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collected water from the five tributaries of the Zarafshan River and eventually flowed into the Caspian Sea through a wide channel[3].

By the end of the Quaternary geological period, the Sarykamysh basin, the Lower Amu Darya, and the Aral Sea basin had formed as low-lying areas. During this geological period, the formation of the Aral Sea was completed. It is important to note that the activity of the Amu Darya and Syr Darya rivers played a significant role in the formation of the Aral and Sarykamysh depressions in the region.

The Akchadarya tributary of the Amu Darya, along with the Janadarya and Kuvandarya tributaries of the Syr Darya, contributed to the formation of the northeastern Aral Sea basins as they merged and flowed into the area[4].

The paleoecology of Khorezm is closely linked to the Quaternary period of Earth's geology. Archaeological research has revealed that during the 7th to 6th millennia BCE, the dynamics of the Amu Darya led to the formation of water basins and lake shores across the vast lowlands stretching from the Karakum Desert to the shores of the Aral Sea. These areas, with their anthropogenic landscapes and massifs, provided favorable conditions for human economic activities.

According to the research of E.B. Bizhanov, the Ustyurt Plateau and the Sultan Uvays monuments were favorable environments for tribes whose way of life during the late Stone Age and Mesolithic periods was primarily based on hunting and gathering. These regions offered

[3] Ўрта Осиё табий харитаси Т-2005

[4] Ўрта Осиёни табиий геграфияси Тошкент, 2005.

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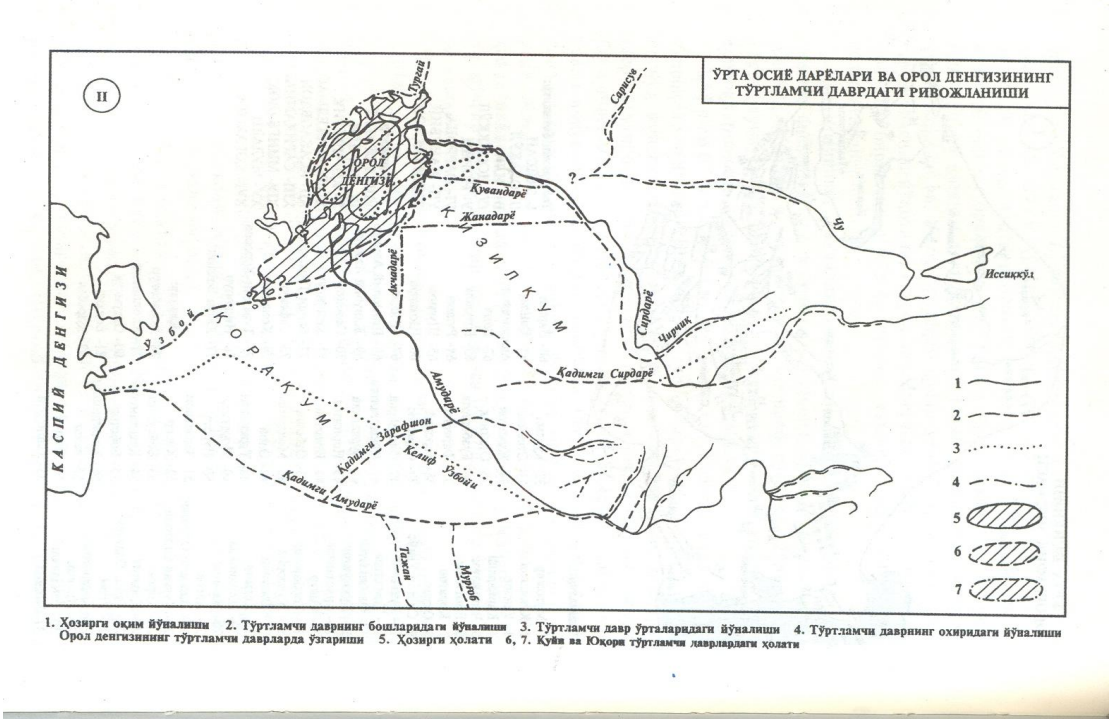
suitable conditions for their subsistence and livelihood[5].



According to the research of S.P. Tolstov and A.V. Vinogradov, by the 5th millennium BCE, the rise in the water level of the Akchadarya tributary of the Amu Darya led to the filling of the depressions between the sand hills in the northeastern border of the Yonbosqala hills. This created favorable ecological conditions within the anthropogenic landscape, allowing our ancestors to engage in hunting and gathering activities in the region. These conditions supported their subsistence and livelihood strategies during that period[6].

During the development of Neolithic society, there were no noticeable signs of human impact on the ecological conditions. The ecological state of the Neolithic period persisted into the Eneolithic, Bronze, and Early Iron Ages. Starting from the second half of the 6th century BCE, the ecological situation began to change due to the spread of Avestan agricultural settlements from the Helmand Valley to the lowlands stretching from the Karakum Desert to the southern shores of the Aral Sea. By the end of the second half of the 6th century BCE, the Khorezmian farmers altered the landscape by constructing the Charmanayb main canal from the middle section of the Daudan tributary of the Amu Darya toward Ko‘zalikir. This transformation led to the emergence of favorable ecological micro-oases around the rising city of Ko‘zalikir.

[5] Виногродов А.В. Бижанов Е.Б. Первые полеолические находки с юго-восточного Устюрта А О 1977, М, «Наука» 1979. Бижанов Е.Б. Мезолитические и неолитические пинотники север западного Устюрта

[6] Толстов С.П. Древние Хорезм. М, «Наука» 1948 , уша муаллиф Древние Хорезмской. Цивилизации, М. Л. «Наука» 1948 Виноградов А.В. Древние охотники и рыболовы средноезпатного междуречье. М. «Науке», 1981

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From the late 6th century BCE, the Khorezmians mastered iron smelting and began producing various tools from its alloys, which somewhat complicated the ecological situation. The ability to work with iron facilitated the construction of artificial irrigation systems, the improvement of agricultural practices across many regions, and the establishment of ancient urban centers based on sedentary farming cultures. This period marked the rise of early urbanism and the development of advanced agricultural techniques.

References

1. Prokhorov B.B. Human ecology: evolutionary aspect / Evolutionary and historical anthropoecology. - M., 1994. - S. 47-65.

2. Baratov N, Mamatkulov M, Rafikov A, Geography of Central Asia. Tashkent, "Uzbekistan", 2002, 283 pages

3. Natural map of Central Asia. T-2005

4. Natural geography of Central Asia, Tashkent, 2005.

5. Vinogrodov A.V. Bijanov E.B. Pervye poleolicheskie nakhodki s yugo-vostochnogo Ustyurta A O 1977, M, "Nauka". 1979.

6. Bijanov E.B. Mesolithic and neolithic pinots of north western Ustyurta.

7. Tolstov S.P. Ancient Khorezm. M, "Nauka" 1948,

8. Tolstov S.P. Drevnie Khorezmskoy civilization, M. L. "Nauka" 1948

9. Vinogradov A.V. Drevnie okhotniki i rybovyy srednoezpatnogo mejdureche. M. "Nauke", 1981