



# From The History Of Construction Of Water Facilities In Kashkadarya Oasis

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## ABSTRACT

In the article, the agricultural traditions of the Kashkadarya oasis, which is considered the southern region of Uzbekistan, the emergence and development of ancient water structures, the characteristics of water structures in different periods, ideologies and the influence of political systems by the human society, the types of water structures are described. issues such as views regarding their changes and their importance and scope are still being used today.

## Keywords:

Water, tradition, Central Asia, people, Uzbek, southern, watershed, hayrov, dam, sepoj, hydrotechnical facility, irrigation.

## 1. Introduction:

Since ancient times, farming has been one of the foundations of improving living conditions as the main occupation of people in the territory of South Uzbekistan, and the traditions of using water and water resources are distinguished by their uniqueness. In the life of peasants, a unique historical experience of farming and its development was formed, and there were a number of aspects that differed from the implementation of collective water works unique to the region.

In studying the history of Uzbekistan, the study of the history of the emergence and development of a certain industry in a certain region is of great importance. One of these areas is the history of the emergence and development of irrigated agriculture in the Kashkadarya oasis.

It is known from archeological finds and historical sources that rainfed and irrigated agriculture is considered the most ancient and

important stage in the treasury of human thought. The French proverb "The world rests on the hands of the farmer" was not created for nothing. And the farmer considers the land as his support. Earth is water. The Greek philosopher Thales also said about water: "Water is the beginning of everything." Irrigated agriculture appeared much earlier than all other professions. This shows that farming is the oldest and most natural way of earning a living.

## 2. Materials and method

Rivers are fed by snow, rain and glacier water. River water is mainly used for irrigation. There are Chimkurgan, Qamashi, Pachkamar reservoirs, Faiziabad, Eskibog, Eskiankhor, Koson, Pakhtaabad, Karshi and other canals. 6 pumping stations, open and closed collector drainage networks were built during the development of the Karshi desert. The soil of the irrigated lands is mainly typical and light gray soils [1].

The emergence and development of water structures in the Kashkadarya oasis has been studied and researched through historical sources. Analysis, oral history, and comparison methods were used in the research. Historical evidence was studied in cross-section of regions, compared to Kashkadarya oasis and concluded.

In the researches of these scientists, the emergence and formation of ancient irrigated agriculture in the regions inhabited by Turkic peoples, modern archaeological research and the problems of the emergence of agriculture in Central Asia, irrigation works in Kashkadarya, some about the ancient history of Nakhlab in the III-VIII centuries. important information is preserved. In studying the history of this field, V.V. Barthold, B.V. Andrianov, S. Lunina, , M.YE. Masson, N.D. Andreyev, G.N. Vinogradov, A.R. Voeykov, V.A. Polozov[2]'s research plays an important role. Some aspects of the history and ethnography of irrigated agriculture in Turkestan, in particular, the Kashkadarya oasis, have been studied in some of the studies.

### 3.Results

In the study of the history of the irrigation of the Kashkadarya oasis in the oldest period, its peculiarity is that this history was not completely reached through written sources before the Arab conquest. For this reason, in the study of the history of irrigated agriculture of the Kashkadarya oasis, we try to think based on the available written sources and findings verified through archaeological excavations.

In our opinion, people have paid attention to the usefulness of water since ancient times. They started thinking about ways to earn food in order to improve their livelihood, living and lifestyle. At first, people approached this work subconsciously, planting crops in places where rivers overflowed from time to time. They began to plant crops as soon as the water of the rivers returned and the land was cleared. This made it possible to grow crops without tilling the soil. The form of irrigated agriculture appeared in this context. This type of farming has paid off, people's work has not gone in vain.

N. Musayev said that women first discovered irrigation farming. The women who were engaged in harvesting brought spiky plants to

their places. In the process of threshing and cleaning of ears, spilled grains sprouted around the huts of the community. Women took care of them. These were the first steps towards farming. During the Neolithic period, the first manifestations of the first irrigated farming culture began to take shape in the clans and tribes living in Central Asia [3].

We don't know what the primitive farmers planted, what kind of grain crops they were. Some archeological excavations provide information about the grain crops of that time [4]. From this it is known that agriculture has been practiced in this country since ancient times and crops have been planted. Archeological observations prove the hypothesis that people used koriz (an artificial irrigation facility, in which a ditch was dug and a channel was laid along the stream - koriz) in the regions of southern Uzbekistan and Turkmenistan [5]. The researches of archaeologists and historians Kabanov and Lunina give a unanimous conclusion that the people living in this region engaged in artificial irrigation at the end of the Bronze Age, and the first forms of artificial irrigation existed here. However, in his book, Rustan Sulaymanov says that there were no large canals in the Karshi oasis and Guzor region, as in Samarkand and Bukhara, and that the largest water structure in the Middle Ages was the Eskyanhor irrigation system, which brought water to the Karshi steppe with the flow of the river. makes a point[6]

The sacred book of fire worship, "Avesta", has a lot of information about the processes related to early farming, such as planting grain, irrigating the land, plowing. It is written in "Avesta" that "whosoever sows wheat, he sows Ashah (Truth). It will raise the religion of Mazda again and again. When the seed ripens in the giants, the giants begin to rise. When the wheat turns green, the giants start to tremble with terror. When the wheat is threshed, the giants die. In a house where wheat sprouts, giants cannot approach that house" [7]. It is known that in the period when "Avesta" appeared, the culture of grain planting, grain cultivation, and farming in general was sufficiently developed. The

waterways were blocked and used instead of irrigation facilities.

They are mainly iron knives and scythes. In this way, irrigated agricultural valleys were created in the Kashka oasis already in the early Iron Age, and it settled, first of all, in the foothills of the oasis [8].

According to V. M. Masson, by the V-IV millennia BC, a new era in the development of Central Asian agriculture begins - they master copper smelting. Their working tools will improve to some extent [9].

People dig ditches with hoes and shovels, move to farming, collect water in artificial ponds, regulate small mountain streams and dry branches of rivers flowing from the plains in the Kashkadarya region. artificially brought water to large areas [10].

"In Nasaf, in the Middle Ages, not only did science progress, but agriculture also flourished. When the Nasaf well of the 9th century was opened and cleaned, a handful of seeds of cotton, seeds, melons, watermelons, grapes, khadi and other crops came out of it. This shows that agriculture developed around Nasaf, and products were sold and processed in Nasaf»[11].

At the end of the 11th century, at the beginning of the 12th century, the words used by the tribes of the Turkic clan in the colloquial language of the all-Turkish people are proofs that the Turkic peoples were engaged in irrigated agriculture. Because in this period, many weapons and crop names related to irrigated agriculture were reflected in the written monuments of that time. M. Koshgari's work "DLT" contains many terms related to farming: казінді - excavated soil (I, 420), оғидчі - someone who threshes wheat and other grains (I, 85), тариг'чи - a farmer who plants grain (III, 260), ketmān - a plowing tool (I, 416), ekdi - sowed, ol tarig' ekdii - he sowed millet (I, 180), ekín - sowed (I, 107), ekitti - planted, tarig' ekitti - he seed was sown (I, 219), org'aq - sickle (I, 141), aqitti - ol suw aqitti - he watered (I, 219), örtgyn - barley, wheat sheaf (III, 419), plow - double, double oxen, plow, yoke. This word is also used in the sense of plowing the land (I, 382), kazuq arik - dug (I, 363), taridi - planted. He planted crops (III, 278)[12] and others.

According to Mahmud ibn Wali (XVII), grain farming had a leading position among all types of farming, due to its place in the daily life of the population. Shahrizabz emphasizes that a good harvest was obtained from grain [13]. Sources report that there were many cultivated fields around Shahrizabz, as well as between the villages of Yertepa, Hamadon and Chimkurgan. Our hard-working people have created irrigation facilities to provide water to the fields, and by improving the technology of irrigation facilities year by year, they have achieved abundant harvest from the fields. In the Middle Ages, the importance of water returners in irrigating fields and distributing water was huge.

#### 4. Discussion

Water-producing devices and returners have been used for irrigating the land since ancient times, and were formed and polished in different periods and acquired different names and different appearances.

We will touch on some of the terms "hayrov", "sepoya", "charpoya", "band", "dam" and the like, and these terms are the terms that arose as a result of the historical development of the people of the oasis.

Hayrov is one of the Uzbek traditions used to clean irrigation networks. This tradition is one of the main folk methods used in the social life of the residents of the oasis, as well as in other regions. Hayrov is a process of mass cleaning of waterways by villagers. Khayrov is a type of hashar, and it is one of the ancient traditions that means the collective work of the villagers in the end of winter and the beginning of spring. In the villages of Kitab, Shahrizabz, Koson, Chirakchi, Qamashi, Kasbi districts of Kashkadarya, we recorded very interesting folk traditions and words related to them from the language of elders. In these places, the udum known as Khayrov and Khayrob were kept. Hayrov was organized in 8 branches of the Kashkadarya river. These are 1,000-2,000 villagers to clean the ditches and canals that receive water from Karabogdarya, Duyurlik (Duyurariq), Jiydaariq, Khojailgor (Yakk), Garovdarya, Mominobodaryo, Chorshanbedaryo, Dambadarya, (Ktb, Shahr). representatives are involved. Muhammadjanov

also stated that the cleaning and repair of irrigation systems was carried out by the whole population in unison, that is, it was carried out in a hashar way - "goodbye". "Hashar" - Arabic "gathering group, meeting, convention" - means the voluntary, impartial participation and voluntary support of many people in doing something [14]. Juvonmardiyev stated that "hashar" was a laborer, juykor (ditch-digger), laborer who gathers every year to dig a nahr (ditch) and a river. The term "hashar" is often used to dig a ditch, draw water. mentions that it was used in his works[15]. All over Central Asia, work in irrigation networks has been done with "hashar" since time immemorial. In this sense, khairov emerged as a type of insect and over the years became a term related only to the cleaning of waterways.

According to the historian A. Abdulhamidov, the word "Khairov" is derived from the Tajik language, meaning "khair" - donated and "ob" - water. Tajiks have been living in the upper part of the Kashkadarya river since time immemorial. The term "Khairov" is a specific form of water works in the upper part of the Kashkadarya river basin. "Khairov" system is equivalent to hashar in Kitab-Shahrisabz and Yakkabogh regions. However, "bye" is only a waterworks term. This term is used to refer to the process of cleaning waterways and improving their flow. Depending on the length of waterways, khayrivchilar (insecticides) were taken[16]. Even the fate of providing water to the lands depended on the "blessings". The strong spring flow of Yakkabogsoy destroyed the main structures of the canals every year[17]. "Khairov" ensured the continuous operation of the irrigation system in the regions and the implementation of water release to the land.

For many centuries, the "sepoya" structure was used to block the water of rivers and to reduce the rapid flow of water. The sepoy was carried out with a farewell. Water flows along the stream to the crop field, encountering many water returners and water dividers on its way to the land. In order to control water by our people, various water separators, dams and dams were invented by our ancestors, and one of them is "sepoya". A sepoy is used to block the overflow of a river and divert it into a canal, to

divert the flow of water to protect the banks of a river or canal from being washed away, and also to shore up banks that are flooded during floods. is also placed. Sepoys are also used to choke the river when the water is low. Sepoya is a folk practical structure that is thrown into rivers to return water, to serve water to people. "Sepoya" is a Tajik word that means "three legs". A sepoy is usually made of three poplar or juniper poles tied together at the ends [18]. But it is worth noting that it is easy, convenient and good to make a sepoy, so today's hydraulic engineers use it widely, says Baturin[19].

The height of a sepoy is from 3 to 10 meters. The weight of a ten-meter sepoy, together with crushed branches, gravel and stones, is more than 30 tons [20]. As a result, the burdened sepoy or chilpoya firmly settled on the bottom of the water and almost blocked the current in this area.

The results of the archaeological excavations conducted in our country show that 3,000-3,200 years ago, that is, in the Bronze Age, irrigation works in our country were very developed and water structures were built. Only when digging the Dargom canal, which was drawn from the Zarafshan river and was dug by hand two and a half thousand years ago, the entrepreneurs and irrigators took into account the elevation of the land. Our ancestors made tunnels (lahm) under the high banks of Amudarya and Zarafshan in order to get part of their water. In order to irrigate the lands higher than the level of the river waters, water-lifting structures - chighirs - were built at the beginning of our era. The pump is considered as the oldest and simplest hydraulic device that raises water in places where the water level is below the level of the irrigated land. In ancient times, it was used in the irrigation systems of Egypt, India, China, Central Asia and other countries. According to historical data, Chighir, which is driven by running water, was widespread in Central Asia (especially in Khorezm) in the 9th-11th centuries [21].

During the Mongol invasion, the watersheds in Movarounnahr were completely decommissioned and destroyed. For example, such a large city as Kokhna Urganch in Khorezm was flooded, and the unique "Jui Arzis" lead

ditch in Samarkand was demolished. It should be noted that the Afrosiyab fortress is supplied with water through a special pipe, the bottom of the ditch is placed on curved pillars, and the sides are reinforced with lead. Jui Arzis speculates that it flowed at a height of 10 meters. Among the similar unique ancient hydrotechnical structures that supply water in our region, the aqueduct of the pyramid type around the ancient fortress of the upper reaches of the "Yakkabog'darya" and the suspension pipes (aqueducts) passed over "Bandikhonsoy" have been preserved.[22].

Among the water structures in Central Asia, the most common type is the cistern. Medieval cisterns are complex irrigation-engineering structures that are adapted to the geographical climate of each place. The water in the pool of this facility has been kept in pure, clean condition for a year.

### 5. Conclusions

To sum up, irrigated agriculture has existed as the main occupation of the population in the Kashkadarya oasis since ancient times, and it is significant that the above folk practical methods have been used in the farming process as an integral part of people's lives until recently.

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