

“GEOGRAPHICAL FOUNDATIONS OF TRADITIONS AND CUSTOMS RELATED TO THE USE OF WATER (THE CASE OF THE SHOHIMARDONSOY BASIN)”

***Annotation.** This article analyzes the geographical foundations of traditions and customs related to water use that have developed in the Shohimardonsoy basin of the Fergana Valley. Through historical, ethnographic, and ecological-geographical approaches, the study highlights the traditional views and practices of local communities in preserving and rationally using the Shohimardonsoy River and dammed mountain lakes, particularly the hazardous Qurbonko'l Lake. It is demonstrated that rituals such as visiting sacred sites, performing ceremonies, and tying “alam” (cloth strips) on trees functioned not only as spiritual practices but also served ecological-monitoring purposes, including observing changes in water levels and predicting hazardous natural processes. The research findings confirm that local communities established a sustainable system for protecting water resources, preserving natural landscapes, and maintaining social cohesion through unique traditions and customs. The article emphasizes the relevance of creatively applying this traditional knowledge and experience in modern water-management practices.*

According to a report published by the United Nations, currently 2 billion people worldwide do not have direct access to safe drinking water, and by 2030 at least 700 million people will be forced to migrate to other regions due to water scarcity [15]. In recent years, more than a thousand regulatory documents have been adopted globally concerning the accounting, management, and rational use of water resources. Notably, by the decision of the United Nations General Assembly at the 1992 Rio de Janeiro Conference, March 22 was declared “World Water Day.” Since 1997, the international community has been holding the World Water Forum—the largest global event in the field of water—once every three years [14]. At international conferences, one of the emphasized measures to prevent water shortages in arid regions and ensure the rational use of water is the need to “fully utilize limited water resources and improve new, including local, technologies to protect these resources from pollution” [16]. The issue of water scarcity and its solutions are of great importance for the Republic of Uzbekistan as well, which is located in an arid region under conditions of global climate change.

During the years of independence, more than 500 resolutions and decrees have been adopted in Uzbekistan regarding the protection of water resources, the provision of quality drinking water to the population, and the rational use of water in various sectors of the economy. In particular, goals 62, 63, and 64 of the “Uzbekistan–2030” Strategy, adopted on September 11, 2023, outline tasks such as enhancing the culture of water use in the country and ensuring the efficient utilization of water in agriculture. These objectives are also reflected in the concept of the Ministry of Water Management — the organization responsible for

implementing a unified water policy in Uzbekistan — where “strengthening the responsibility of water users for the rational use of water resources and improving the culture of water use” have been included among the main priorities [1]. In our opinion, addressing these issues requires studying the traditions and customs of our ancestors aimed at the rational use and protection of water based on an ecological–geographical approach, and creatively applying this knowledge without rejecting innovative development, as it may lead to significant practical results. As S.A.Arutyunov noted, “...traditions may exist without innovations, but not vice versa.” [6].

In the Fergana Valley, river basins fed by surrounding mountains in their upper reaches have formed lake systems of various origins, including dammed, moraine, and karst lakes. In most mountain lakes, large volumes of water accumulate, which can cause dangerous flash floods. According to R.Pirnazarov and F.Hikmatov, there are currently more than 350 dammed lakes in Uzbekistan and the adjacent regions [10]. I.Dergacheva notes that in this region there are 320 lakes with a risk of bursting, 221 of which are located in the river basins on the periphery of the Fergana Valley, including 28 in the Shohimardonsoy basin [8].

One of these lakes is Qurbonko‘l, which administratively belongs to the Qadamjoy district of the Batken region in the Kyrgyz Republic. According to the prominent scholar H. Hasanov, Qurbonko‘l was originally called Xubbonko‘l and was referred to as “Xubbi,” a water deity, in pre-Islamic times [12]. The annual precipitation in the basin ranges from 400 to 700 mm. Sometimes during the hot season, cold air masses entering the area are blocked by mountain ranges, leading to a drop in temperature and hail precipitation. In some cases, such precipitation causes severe flash floods.

The water level in Qurbonko‘l begins to rise in May and reaches its maximum in June–July. At this time, water begins to seep through the upper part of the dam, specifically at the depth formed on the III generation of the dam, creating what locals call the “third lake.” This phenomenon was observed in June–July of 1964, 1987, 1988, and 1998. R. Pirnazarov considers the formation of a new lake on the dam as a “specific warning of nature” and emphasizes that the risk of dam failure or overflow is most likely in June–July [10]. If the Qurbonko‘l dam fails, the 3.5 million m³ of accumulated water could first damage recreational facilities in the Shohimardonsoy basin and additionally cause significant harm to villages in the lower part of the basin, such as Shohimardon, Oqqiya, Qumbuloq, and Langar, as well as major population centers including Qadamjoy, Vodil, Chimyon, Oltiariq, Fayzobod, Margilan, and Fergana.

Based on the above, hydrologists suggest conducting studies on lakes in the periphery of the valley as separate research objects, assessing their condition through a comprehensive study of the region’s natural conditions and hydrometeorological regime, and carrying out continuous monitoring [6, 10]. At the end of the 19th and the beginning of the 20th centuries, such issues were rationally addressed by our ancestors based on centuries of phenological observations, and the water bodies were “monitored” in their own unique ways.

Religious and legal customs, as well as traditions and rituals, were widely used to protect nature, predict adverse changes, and prevent potential hazards.

Every people has its own traditions and unique customs. In the scientific literature, a tradition is defined as “a means of transmitting the accumulated experience of ancestors to future generations,” while a custom consists of “rules, norms, and rituals accepted by the entire community as a tradition” [13, pp. 32, 416]. Traditions and customs reflect the culture of a particular people, perfectly adapted to their “native landscape,” and they evolve as society develops: some disappear over time, while new ones emerge. Those traditions and customs that have a strong geographical basis are preserved over centuries and passed down from generation to generation.

Throughout historical development, in the Fergana Valley, traditions and customs have formed to ensure the rational use of water resources, including practices such as careful water conservation, rotational water use, respecting the water needs of neighboring peoples, and conducting economic activities in accordance with the direction and regime of flowing waters. Shrines and sacred sites have played a particularly important role in preserving these traditions and passing them down from generation to generation. According to statistical data, there are more than a thousand shrines in the valley, most of which are located in water basins [2, 4]. Ethnographer R.Y. Rassudova notes that in the valley, shrines can be found from the sources of rivers to their lower reaches, across areas with diverse natural and economic conditions (mountains, foothills, and plains). She classifies them into three groups based on their regional location:

1. Shrines located in the valley periphery;
2. Shrines situated on the upper parts of conical plateaus and at the heads of irrigation canals;
3. Shrines found at the lower reaches of canals, near springs and water sources.

Seven shrines located near the sources of rivers flowing from the periphery into the valley—Kogart, Karadaryo, Oqboyra, Aravon, Isfayram, Shohimardon, and Sokh—are included in the first group (Jalalabad, Osh, Kampirravot, Duldulota, Qadamjoy, Shohimardon, and Yigitpirim). The valley’s population considered it necessary for a person to visit these shrines at least seven times during their lifetime. Shrines located on the upper parts of the conical plateaus were traditionally visited by the valley population every spring, as it was believed that only then would water abundance and prosperous harvests occur in that year. The third group consists of shrines located in the lowest parts of the water basins—so-called “dayrovod” or “qoradayrovod” (riverbanks) and “xokob” (water-rich soil) areas [11].

According to Y.Ahmadaliyev, the Fergana Valley is divided into four ethnolandscape regions, comprising 17 ethno-ecological districts, based on landscape, ethnic, economic, and other characteristics. It is noted that in almost every ethnolandscape region, separate ethno-ecological districts have formed along river basins from upper to lower reaches, each performing distinct ecological functions and having its own center and sacred sites [4]. Notably, more than 80%

of these sacred places are located in the mountainous areas of river basins where water accumulates. One such sacred site is the Shohimardon shrine.

Shohimardon is a settlement located in the upper part of the Shohimardonsoy basin, with more than ten sacred sites in the village and its surrounding areas. Russian scholars describe Shohimardon as "the most sacred place in the Kokand Khanate" according to A.P. Fedchenko, and as "the patron protecting Fergana from calamities" according to L. Kostenko. N. Abdulahadov and T. G'oziyev note that "at the beginning of the 20th century, more than 15,000 pilgrims visited Shohimardon annually in July and August" [3, p. 320].

Pilgrims offered sacrifices to Hazrat Ali at water sources, particularly at the confluence of the Koksuv and Oqsuv rivers and along Qurbonko'l. Each participant in the ritual first prayed for abundant water that year, divine protection from water-related disasters, and for good harvests and prosperity, before making other personal wishes [11].

It is worth noting that although there is no historical evidence of Hazrat Ali visiting Central Asia, local traditions mention places such as "the spot where Hazrat Ali's foot touched Qadamjoy." Legends frequently feature rivers, describing how Hazrat Ali blocked overflowing rivers, joined two rivers to bring water to arid lands, and cut through mountains with his sword to create lakes. V.L. Ogudin reports that there are 18 natural monuments in the valley associated with the name of Hazrat Ali [9].

One of the pilgrimage practices in Shohimardon involves visiting Qurbonko'l, located 7 km southeast of the village at an altitude of 1,738 meters above sea level, along with sacred sites on the way such as the Oqsuv shrine, Beshpanja, and Oltinbeshik. While ascending to the lake along mountain paths and rocky trails, pilgrims express their sincere wishes to the trees and shrubs near the lake and tie pieces of cloth called "alam" (from the Arabic *alāmat*, meaning "sign" or "symbol"). Tying alam is one of the main rituals at sacred pilgrimage sites and is still practiced in many Eastern countries, including India, Pakistan, Iran, and others.

Qurbonko'l was formed as a result of a massive landslide in the Ko'ksuv tributary valley of Shohimardonsoy following a strong earthquake. Water flowing through the collapsed natural dam emerges as springs over a stretch of 80–100 meters at a distance of 900–1,100 meters from the lake, and their confluence forms the Ko'ksuv River anew. Locals explain the lake's formation and the re-creation of the Ko'ksuv River as follows: "Hazrat Ali, with his Zulfiqar sword, cut through the mountain to form the lake, and as soon as he struck with his five fingers to allow water to flow, eighteen irrigation channels began to carry the water" [6]. On the eastern side of Qurbonko'l, there is a steep cliff with a cave considered a sacred site called Oltinbeshik. According to legend, Hazrat Ali's golden cradle once swung there.

From an ecological-geographical perspective, these traditions can be understood as unique religious-ecological methods for "monitoring" Qurbonko'l. Considering that the full water period of Shohimardonsoy occurs in June, and that the risk of

the Qurbonko‘l dam breaking or water overflowing also falls in June–July, it is no coincidence that locals primarily undertake pilgrimages in June–August. Sacred sites in the lake area, such as the Oqsuv shrine, Beshpanja, and Oltinbeshik, effectively served as “observation posts” for this purpose.

Through the Beshpanja shrine, people observed how water would flow from under the dam and reform the Ko‘ksuv River, and by ascending to the Oltinbeshik cave, they monitored erosion phenomena on the northern and southern slopes of the Qurbonko‘l basin, as well as water seeping into the dam-created depression to form the so-called “third lake.”

We believe that tying alam served the following functions in monitoring changes:

1. **Marking the path for future visitors:** Pilgrims left visible markers for those who came after them. In certain periods, trails to the lake could be washed away by hail or floods, and the cloth pieces on shrubs served as orientation markers. Religious and spiritual rituals ensured that these cloths were periodically renewed and protected from being lost under varying weather conditions.

2. **Protecting vegetation:** Shrubs and trees where alam were tied were considered sacred, so people avoided damaging them, which helped maintain the stability of the slopes.

3. **Observing water level changes:** By tying alam to trees and shrubs around the lake, pilgrims effectively monitored changes in the lake’s water regime. These religious-legal practices not only cultivated the ability to follow existing norms and customs but also motivated people to adhere to them. This encouraged all individuals, regardless of age, gender, or social background, to participate in lake pilgrimages. The participation of elders further ensured the continuity of this tradition for subsequent generations.

In summary, until the late 19th and early 20th centuries, efforts in the Fergana Valley were focused on minimizing exploitation of river catchment areas and preserving the natural landscape. The upper parts of rivers were protected as sacred pilgrimage sites. Agricultural activities and any actions that could harm the local flora and fauna were prohibited within these sacred areas. Each river was treated as a distinct natural system, and a unified socio-economic system developed along its course from source to mouth. Religious-ecological methods were developed for “monitoring” water bodies, including Qurbonko‘l, in a unique way. Through such prudent practices, our ancestors maintained ecological balance over centuries, timely detecting and preventing negative changes in nature.

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