

## BUXORO VOHASI DEHQONCHILIK MADANIYATI TARIXIDAN (XIX ASR OXIRI-XX ASR BOSHLARI)

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**Tayanch iboralar:** Paykal, tegirmon, mo`ndi , molaб go`ja, to`gon, belkurak, ketmon, yaxob, yagona, to`pcha, chopiq, oq jo`xori

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**Ключевые слова:** Грядки, мельница, мунди, мола, плотина, лопата, мотыга, яхоб, ягана, сфера, измельчитель, белый овес

*Maqolada quyi Zarafshon vohasi ziroatchilarning yerga ishlov berish, ekin ekib mo`l hosil olish bilan bog`liqtadbirlari , dehqonchilik madaniyatining o`ziga xos usullari manbalar va dala ma`lumotlari asosida tahlil etiladi.*

*В статье на основе источников и полевых этнографических данных анализируется деятельность земледельцев по обработке почвы, урожайности , специфическим приёмам земледельческой культуры в низовьях Зерафшанского оазиса*

*The present article analyzes the activities of farmers in the soil cultivation, yield, specific methods of agricultural tradition in the Lower reaches of the Zerafshan oasis based on the sources and field ethnographical data .*

### **Introduction.**

According to the data, in the late 19<sup>th</sup> and early 20<sup>th</sup> centuries, the Lower Zarafshan oasis, which included the Bukhara, Karmana and Karakol oases, had its own traditions of flourishing farming culture. And these traditions were primarily associated with peasant techniques and labor tools. Residents of the Bukhara oasis used land and water collectively. In addition, all irrigation canals are cleaned together in the fall and early spring each year. Excavation of large canals and the construction of dams were carried out by the population as a community through the public mutual assistance works which is referred to as *hashar*. Excavation of large canals and the construction of dams and dams were carried out by the population as a community through the *hashar* [1].

Also in the oasis in the early 20<sup>th</sup> century, with the gradual transfer of land to private individuals, i.e. large landowners, on the basis of the demands of class society, the collective relations in the region gradually disintegrated. However, the preservation of collective relations in the principalities of the Bukhara Emirate, as well as in the mountains and foothills, was due to geo-territorial factors. Therefore, at that time, separate *hashars* were hired from the members of the community and the rich, that is, from the large landowners, to clean the rivers and canals. Mulla Davlat, Qodirkol aksakal, Yuldosh Amin, Turaboy, Suvonboy from Karakol village of Guzar county had a lot of lands. They hired more laborers to clean the waterways. The population of the villages

near the oasis or irrigated from it formed a separate community. Naturally, these rural communities also created smaller crop fields. They were called “*paykal*” (raw) in several districts of the oasis[6].

**Materials and methods.** According to the tradition of the oasis, before the start of field work in the early spring, each year the villagers of the oasis gathered on their community lands and elected an old, respectable and experienced man from among them as an elder. At this meeting, a mirab, a doruga, and even a barber were elected. Only married people were counted and divided into parcels. Each Paykal included 8 people (“tan”)[9]. So, these 8 people did all the light and hard work related to the pail. Depending on the length of the ditch and the river, hashers were taken from the piles. Members of raws took part in clearing the waterways in a disciplined manner.

Landfills that do not have access to water and are difficult to drain are called “*posira*”, in which the workers are called “*posirakor*”. It was very difficult to grow crops in Posira. Initially, the area was planted with arable land and irrigated with snow and rain water. In rare cases, farmers irrigated their lands once or twice with stagnant water, meaning that the crops planted on such lands were irrigated with difficulty. Probably for this reason, the guards were rarely involved in the regulation of waterworks.

The villagers of all the principalities of the oasis had their own lands in addition to the communal lands and posira lands. The area was surrounded by 5 cotton walls or fences in the villages. In the steppe areas of Karakol, Alat, and other districts, there were no signs of fencing, and such areas were commonly referred to as “*hayat*”[2].

As in other parts of Central Asia, the Bukhara oasis was experiencing water shortages. Therefore, the local population was well aware of the rules and methods of using irrigation stations[2]. Farmers have strictly adhered to the use of water in areas where there is a shortage of water. The amount of water was measured in a certain order. For example, “water flowing from a ditch overnight: Water measures such as “one mill” or “stone” - the amount of water that goes to grind a pound of grain in a mill - and “one pair” - the water that is enough to irrigate a field plowed with a pair of oxen” are widely used. In the water-scarce districts of Bukhara, the water supplied to a couple of plots of land used by the community was measured by “*mondi*”. *Mondi* is a simple ceramic jug with a perforated bottom that can hold about ten liters of water, and the amount of water is measured by the amount of water that flows through it. It should be noted that the choice of irrigation methods depends on the amount of water. In the central part of the oasis, farmers used the “one ear” method of irrigation. In this case, the timing is determined by the movement of the sun. The Mirabs knew very well the location of the members of the paykal and took the time to do so. By the beginning of the 20<sup>th</sup> century, wealthy people had taken advantage of their position and, in some cases, violated established rules[2].

In the village of Kurgan in the Romitan district of Bukhara region, there were 50 paykals, three of which had to be irrigated overnight. Two acres were irrigated during the day and one at night. Each pike was rotated once every 16-17 days. In the neighboring village of Rome’, there were about 37 parcels. Led by a village elder, the people gathered in the village and set the water queue. A medium-sized bucket of water was poured through a hole in the bottom of a pottery jug. The same thing happened in other villages.

Crops were irrigated according to the amount of water. If there was not enough water, it was watered with straw and flooded. If the water flowed for a long time, the crops would be drained through the furrows or furrows. Particular attention is paid to the watering of crops. The method of irrigating the furrows is usually done at night.

Under the conditions of the Bukhara oasis, agriculture is based on artificial irrigation. Land fertility and crop yields have increased year by year due to artificial irrigation, lengthening and widening of canals. By the end of the 19<sup>th</sup> century and the beginning of the 20<sup>th</sup> century, attention to

irrigation had declined. Due to the lack of river water, canals and tributaries (smaller than the ditch, some of which are irrigated by rural areas) are flooded with sand, mud and algae. As a result, the amount of irrigated land has been declining year by year. This is due to a number of reasons and factors. Irrigation has been neglected as much of the land has passed into the hands of large landowners. When wheat or barley was planted in one season, the paddy fields were turned into pastures. Over time, a number of canals and ditches were buried and lost their significance [3].

Human life and economic activity depended in large part on agricultural production, and the tools of labor were in the form of the distant past. Plowing or cultivating crops is carried out with the help of oxen, so the importance of working animals in the life of the people of Bukhara was extremely high. Good feeding of working animals and their care had become a vital necessity. Even during the autumn plowing, the main labor force was a pair of oxen, which plowed and plowed with the help of plows. In the early spring, the main working animals were oxen and sometimes horses. During the months of March –April when the days get longer, the ground gets warmer, it was necessary to use the domestic animals which had lost certain amount of energy during the harsh conditions of the winter, keeping them necessary to be used in prolonged and multiple periods of times.

The ancient people of Bukhara fed the working animals well and used them in cool weather, mostly at night and in the early morning. Compared to oxen, which are employed during the peak of spring work “gava pushtash oftoba nabinad”- Hence, the phrase “the body of a bull should not be exposed to the sun” implies that bulls, and generally working animals, should be cared for and used in cool weather, rather than in the sun[4] .

Preparation of lands for sowing in early spring, timely sowing also required special training and experience. Skilled farmers from Bukhara tried to make the most of every moment of spring and carry out sowing and planting work on time. They took advantage of every minute of spring and tried to plant early. The popular saying “the seed sown should not touch the body of the ox” [5] means that the seed sown in the ground during the spring sowing will be lost until it touches the body of the working animal and falls to the ground.

There is a great deal of experience in tillage and crop care based on traditional methods. The ancestors of the Uzbeks invented a number of agro-technical methods. One of them is the method of threshing white corn.

It is known that in the cuisine of our people from ancient times there was a dish of chicken, which was prepared mainly from white corn and eaten with yogurt. Growing white corn required special agro-techniques than other types of crops. For this purpose, well-saturated with local fertilizers, a suitable place for water was selected and planted. Between rows of crops, the distance between the bushes should not be less than 40-50 cm. After germination, the crop was isolated from weeds.

It should be noted that during the hot and dry weather conditions in Bukhara, during the water shortage, each layer of white corn, which is one meter high, was treated separately, the bottom was softened, the soft soil was pulled under the sun and made into balls. As a result, moisture is stored for a long time, and the strength of the bush, increased resistance to wind and natural disasters. White corn grows to a height of 2 to 2.5 meters, with 3 to 4 heads at each root, or at least one kilogram from each root. Heads of white corn hung in long rows on the porches of Bukhara residents living in rural areas could be seen until late autumn. In the heat of summer, well-dried white corn heads are crushed, the grain is sifted, thoroughly cleaned and stored in a separate dry place. In autumn and winter, chickpeas are cooked from its seeds.

Another method of traditional farming in Bukhara is the “Varqoni” method, which is used to grow melons and watermelons. Since we did not find any information about this method in historical written sources, we relied on the memories of informants [7].

Growing melons in the unique climate and soil conditions of the Bukhara oasis required special diligence and experience. The fertile soils of the Zarafshan River, the dams of the big canals were flooded, wet and soft, the rivers and canals were saturated with mud and the productivity increased. In such places would give a high yield of melon and watermelon crops. When a planted melon sprouts and blooms, it is watered or flooded. In this case, when the ground came to a boil, the top was cut and a soil ball was placed under each bush. This method is referred to as “Varqoni” in the name of the main part of the dam or in the ancient Sogdian language “varq” – “dam”. Varqoni is a dam-headed farm, where melons are abundant and delicious.

Special attention is also paid to the unification of melons in traditional Bukhara agriculture. Among the people, the phrase “two melons in one piece, one melon in two pieces” [4] indicates the urgent need for timely unification of melons, watermelons, squash and other crops.

Typically, a plow was used to crush loose soil, level the ground, and pull soil after sowing. There are two types of harrows: one is large and 3-3.5 m long. made of perennial mulberry or apricot wood (thick-bodied mulberry or its body is directed with poytesha). Harrow was 40-60 cm wide and was usually pulled by bulls. The bulls were led by one man and one man was sitting on the mule. Harrow was used in most arable lands, fallow and hayfields. Where spring crops are planted, small trunks with twigs are used instead of mulches. Poor farms that could not afford to build a plow used a shovel as a plow. The small one is about 2-2.5 m long and is pulled by two oxen, a horse or a camel [6].

A shovel is an ancient soil softener used in the Bukhara oasis. The device is made of metal and has a special ear, depending on the user's wishes. The ear was on the right or left side of the shovel. Some homes had two shovels. The shovel was used to dig the ground, add manure or soil to the cart, dig ditches, and build cotton walls. The shovel was 25-27 cm long and 20-23 cm wide. The length of the handle was 1.3-1.5 meters. Unlike a shovel, a clay shovel is used for cutting clay.

In ancient times, the most widely used tool in agriculture was the ketmon, which was also important for the farmers of the Bukhara oasis. Ketmon has been used in horticulture, horticulture, vegetable growing and grain growing, as well as in farming in general, and ketmons also vary in shape and size. Typically, hoe, 30-32 cm wide and 25-27 cm long, is most commonly used in soil loads, especially for furrowing, hoisting, plowing and leveling. Smaller ketones have been used to soften and chop plants. The ketmon handle is mainly made of willow wood. The farmers of the oasis used high-quality tillage to get more crops from the land. The rich businessman plowed the land once or twice in the fall. Mowing, watering the fields and applying local fertilizers were also done with the advice of experienced farmers. Crop rotation was also a major factor in agriculture. Due to the seasonal nature of the plants, one plant was planted instead of the other. Of course, in this process, the weather and the specifics of the soil are taken into account.

Like all the peoples of Central Asia, the peasants of the Bukhara oasis planted more grain in the early 19<sup>th</sup> century. Wheat and barley are planted in the fall. The seeds are sown by hand and covered with a rake. In the tugai lands where the grain is planted, it is watered 2-3 times before the grass sprouts and after the grain has turned into dough [6].

According to our correspondents, white wheat has been planted on irrigated lands, “red wheat” and “black wheat” on arable lands. After the harvest, the vacant lands were planted with moss, sesame seeds, three-month-old white corn, and millet. Some farmers prefer to replant vegetables and melons, especially carrots, turnips, and watermelons[9]. In the early 20<sup>th</sup> century, wheat, barley, peas, flax,

sesame, maize, and sunflower were the main crops planted. Not all of the vacant plots were replanted. Because farmers did not always have the opportunity to replant. The main part of the paddy fields was irrigated after the harvest and plowed 2-3 times in pairs. At the end of November, during the month of December, the land was given “winter” water [10]. Of course, irrigated lands are resting until the beginning of the spring planting season.

By the end of the 20<sup>th</sup> century, only 70 percent of the irrigated area in Turkestan was planted with cotton. The area under cotton in the Emirate of Bukhara is 62%, and in the Kashkadarya oasis alone - 2,000 hectares [8]. In the early 20<sup>th</sup> century, the Emirate of Bukhara sold a variety of agricultural products to England and other foreign countries. There was a lot of cotton in the products. This, in turn, has led to the planting of cotton in the Karakul, Alat and Romitan districts of the Bukhara oasis. In particular, “Mavri cotton” and “Malla cotton” varieties are grown in the oasis. The cotton crop grown by the Chorikors was sold by large landowners. The rich built factories (small enterprises that process cotton), separated cotton from seeds and spun yarn from the fiber obtained. And from the threads, silk fabrics were woven. According to Colonel Strukov, who was sent to study the development of trade with the Central Asian khanates “The variety of fabrics brought by Asians is very popular among the common people, as they are soft and durable and can replace the much-needed hemp fabric for the country's army” [10]. This opinion of the Russian officer is confirmed by the information received from our correspondents.

It should be noted that no matter how difficult the living conditions, the farmers of the oasis have always helped each other. If the ditching and clearing works were carried out in late autumn and winter and early spring by hashar, the farmers also worked together to separate the grain in the threshing floor, chop the cotton, pluck the stalks, bury and open the vines, pomegranates, and figs, and process and shape the trees.

**Discussion.** On the eve of World War I, Russia’s colonial policy in Turkestan aggravated the situation of farmers, as well as those of other industries. Excessive taxes have led to a reduction in arable land. Our correspondents have reported that people plowed the land with a plow instead of a working ox to make a living, and that they plowed with a hoe day and night.

In addition, poor care of cotton as a result of non-compliance with crop rotation practices has led to weakening of fields, declining cotton yields and deterioration of existing varieties, as well as deterioration of other quality indicators. The weather conditions of 1916 (late and cold spring, summer drought, locust infestation) aggravated the situation of the economy and cotton farming techniques. Therefore, it is safe to say that this description for the whole of Turkestan also reflects the situation in the Bukhara oasis.

**Conclusion.** In the late 19<sup>th</sup> and early 20<sup>th</sup> centuries, the cultivation of grain, cotton, or other melons in the Bukhara oasis made it more difficult for farmers to do manual labor. Also, the inadequacy of irrigation facilities, the allocation of fertile land by the rich, the excessive taxes levied by the Emir of Bukhara, the simplicity of agricultural machinery and tools did not allow to increase the productivity of crops.

The wise Uzbek people have made a worthy contribution to the world agricultural culture even in the difficult natural conditions of Lower Zarafshan by creating unique methods and measures for thousands of years of farming, planting crops and reaping a rich harvest, It is noteworthy that despite the difficult conditions, based on their centuries-old experience, they were able to grow a rich harvest using traditional farming methods.

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