



## **Development of Mining in Uzbekistan in the Middle Ages**

**Akhmedov Gulomjon Jumanazarovich**

Director of specialized boarding school No. 1 in Urganch city, In the system of the Agency for Presidential Educational Institutions

**Abstract:** *The article focuses on the fact that due to the Arab invasion of Central Asia and the long-lasting resistance of the local population, by the beginning of the VIIIth century, a crisis situation arose in economic life, especially in mining production. However, only by the last decades of the VIIIth century, as a result of a series of measures to restore economic life, signs of recovery were visible in this area, and from the IXth century, the stages of development in the process of mining production were considered.*

**Keywords:** *Panjisher, Lashkarak, Kubatura, Kon Jala, Aq Ortasoy, Oltintopgan, Kumushkon, Aktash, Kurghoshintopgan.*

### **1. Introduction**

In the IXth-Xth centuries, Movarounnahr became an economically and culturally highly developed region of the Muslim East. There is no doubt that the changes in the field of mining production played an important role in the economic growth. It should be emphasized that the increase in labor productivity and the increase in the production of minerals in this area was not due to changes in working conditions or innovations in the field of technology, but was achieved due to the opening of more new mines and an increase in the number of mines in use.

Mining production, which had stopped since the IXth century, was revived again. Mining entered its most developed stage in the IXth-XIIth centuries. During this period, mining of various metals, rare minerals, colored stones, raw materials used in construction, and various minerals developed. The importance of silver mining in the mining production of this period was particularly high.

In the Xth century, the main places where silver was mined in Central Asia were Shelji (Talas) and Koni Tut (Isfara) mines. One of the largest silver supplying regions of Movarounnahr was considered to be the Oasis of Ilaq. According to Ibn Havqal, in the Xth century, all the silver mined in this area was brought and stored in Bukhara, the capital of the Samanids [1, p. 24-25].

When talking about the Ilaq Mountains, all medieval authors first of all mention the existence of gold mines here. The results of archaeological research have shown that gold washing, that is, gold extraction, was carried out in several places in the Chirchik-Ohangaron basin.

Tashkent oasis, in particular SHosh, Ilaq valley, was of great importance in Movarounnahr mining production. Owing to its rich silver and gold deposits, Shosh occupied an important place in the economic life of the entire Muslim East. For example, the fact that the nationally important silver coins of Caliph Harun al-Rashid were minted with the inscription "Ma'dan ash-SHosh" is a clear proof of our opinion. In the works of Arab geographers who visited Movarounnahr in the IXth-Xth centuries, we can find important information about the mines and minerals of the Shosh and Ilaq

valleys. In particular, Ibn Khurdobek (9th century), who expressed his opinion about the silver of the Ilaq Valley, called this area "New Panjisher" and compared the Ilaq silver mines with the Panjisher silver mine in Afghanistan, which was the leader in silver mining in the Eastern world. [2, p. 17]. According to the conclusion of historical archeological research, it is noted that silver was mined from a depth of up to 300 meters in the Lashkarak mine located in the Ilaq mountains. In this area, only mines rich in silver were used, and silver mines with a large mixture of other minerals were neglected [2, p. 26]. This indicates that the quality of silver mined from Ilaq Valley is distinguished by its high grade on the scale of Movarounnahr.

According to written sources and historical research, in the IXth-Xth centuries, the most important silver mines in the Ilak mountains were Kubatura, Kon Jala, mines belonging to the Aq Ortaso group, Oltintopgan, Kumushkon, Aktash, Kurghoshintopgan and other places, besides Lashkarak. Leg chains were found in some mines, which indicate that criminals or slaves were widely used in these mines. This process is important in illuminating the history of production and labor relations in the period we are studying.

## 2. Methods:

The article uses the methods of source analysis, comparative analysis of scientific views and approaches, generalization of historical data and principle of objectivity.

## 3. Results

In the Xth century, the silver mined from the Ilaq valley, like all the silver collected from the mines of Movarounnahr, was sent to Bukhara, the capital of the Samanids, and stored in a special ingot form. During this period, mints of state importance were established in several cities of Movarounnahr. Ibn Khavqal mentions Bukhara, Samarkand and Ilaq as places where Movarounnahr minted coins [3, p. 77].

Especially in the 9th - 10th centuries, silver was extremely important for the development of the country. In our opinion, the main purpose of Ismail Samani's conquest of the Talas Valley in 893-894 was to expand the territory of his state and to acquire the rich silver-lead mines in Shulji located in this area.

It is known that a large amount of lead remains after the extraction of silver from the mines. It was used for obtaining various paints, minting coins mixed with other metals, making water pipes and various containers, glazing pottery and other purposes.

In the Xth century, a substance called "sulfur" was obtained from Ilok silver-lead mines, which was made from silver smoke. Some experts consider the sulfur element, which is rare in nature, as margimush (arsenic oxide) [2, p. 26].

During this period, Movarounnahr silver ingots and coins were exported to Eastern European countries. The discovery of silver coins minted during the Samanids period in Eastern Europe and Scandinavia is a clear proof of our above opinion.

The export of precious silver to Western countries increased the value of silver coins in the domestic markets of Movarounnahr. As a result, by the end of the Xth century, a shortage of silver began to be felt in this area. This process gradually spread to the territory of Byzantium in the West and Egypt in the South. It should be noted that the end of the Xth century, the XIth and XIIth centuries were the period of the "silver crisis". This situation shows that there was no stability in the field of mining production in the IXth - XIIth centuries.

The shortage of silver also had a negative impact on the quality of silver coins. This, in turn, reduced their purchasing power and led to an increase in prices. In addition to the minting of low-quality silver coins, the shortage of silver led to the active introduction of gold dirhams and copper coins into circulation. Sources testify that in 1017, due to the shortage of silver, copper dirhams were minted from a mixture of various worthless metals in the cities of Khojand and Ilaq [4, p. 73]. This

indicates that the rulers of Movaronunahr could not use domestic silver reserves wisely in economic life, in the domestic and foreign markets.

Abu Rayhan Beruni wrote about the Ilaq mines of this period, "The Ilaq mines are currently abandoned and in a pitiful state" [5, p. 178]. It was natural that the condition of the mines would be like this during the period of political crises, change of dynasties in the state administration, and mutual struggles for power in the XIth century.

Some experts who focused on the silver crisis in Central Asia point to the depletion of mineral reserves in the existing silver mines as the main reason [4, p. 73-74]. If we take a deeper look at this issue, we can see that there are several other technical, economic and social reasons - serious obstacles to finding and using new mines. In particular, the labor shortage has also had its effect. Thus, the lack of efficiency of the labor of slaves, who were the main labor force in the mines, the almost non-introduction of technical innovations in production, and other reasons caused the "silver crisis" in Movarounnahr in the Xth-XIIth centuries.

Causing a silver crisis in Europe through trading factories in Venice and Genoa provided some relief from the shortage of silver in the Muslim East. As a result, from the end of the XIIth century to the beginning of the XIIIth century, minting of coins from pure silver was started again. In Movarounnahr, the minting of silver coins was restored only during the reign of Chigatai Ulus. Also, during this period, handicrafts, in particular, the production of various metal products, developed.

#### 4. Conclusions.

Thus, in the IXth-XIIth centuries, the general state of the mining industry experienced a period of growth and crisis, closely related to the socio-political and economic life in Movarounnahr.

In general, the medieval period occupies an important place in the development of metallurgy in Central Asia. During this period, metallurgy developed depending on the political and economic situation in the region. The development of mining production had a great impact in the periods when political stability was established and economic and cultural relations developed during the reign of the Turkish Khaganate, the Arab Caliphate, the Samanids and the Karakhanids, and the Khorezmshahs.

During this period, mining production developed in the Western Tian-Shan mountain ranges, Ferghana, Hisar, Pamir and Badakhshan. Many new mines were involved in the production process of minerals, the volume of mined products increased, the technical means and tools used in the mines were improved.

In the IXth-XIIth centuries, which is the most developed period of mining production in Uzbekistan, more than a thousand different mines were operating only in the mountains of Chotkal, Nurota, Fergana, and Khorezm, which shows how large a scale it was carried out. Iron deposits of this period were found in Fergana (Aqtash, Karamozor), Tashkent oasis (Mingbulok), Samarkand (Choponota), Kuhitog, Boyson, Hisar mountains. The western part of the mountain ranges of Turkestan, i.e., Chumkortov, near Sogd, and Morguzar, part of Ustrushona, were also noted by experts as important iron mines and iron processing centers.

In the XIIth century, mercury, precious stones and mineral resources (salt, saltpeter, healthy soil, flint), as well as coal, asbestos, marble, limestone, gypsum and other mineral resources were used in the territory of Uzbekistan in the XIIth century.

In general, this period can be recognized as the most developed stage in the history of mining production in Central Asia.

#### Иқтибослар/Сноски/References:

1. Бетгер Е.К. Извлечение из книги «Пути и страны» Абул Касыма ибн Хаукаля //Тр. САГУ. Вып. I. Археология Средней Азии. -Т., 1957. С.24-25.
2. Массон М.Е. К истории горного дела на территории Узбекистана. -Т.: Фан. 1953. –146 с.

3. Массон М.Е. Ахангаран. Археолого-топографический очерк. –Т., 1953. –144 с.
4. Лордкипанидзе Л.Н. История геологического изучения Узбекистана в системе цивилизации Азия. –Т., 2001. – 212 с.
5. Абу Райхан Беруни. Собрание сведений для познания драгоценностей (Минерология). /Пер. А.М.Белиницкого. Статьи и примеч. А.М.Белиницкого и Г.Г.Леммлейна. - Л., 1963. – 196 с.