

## **From the History of Mining and Metallurgy of the Turkestan Region at the End of XIX - Beginning of XX Centuries**

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**Abstract---** The article describes the work done in the field of mining and metallurgy in Turkestan in the late XIX - early XX centuries. During this period, as a result of the transformation of our country into a Russian protectorate, various types of citizens, scientists, industrialists, entrepreneurs came from the Russian Empire and studied their underground and surface mineral resources.

**Keywords---** Mining, Metallurgy, Military Purposes.

### **I. Relevance**

Research on the extraction and processing of minerals, including precious metals, in the territory of the Bukhara Emirate has an ancient history. In the Bukhara Emirate from the XVII century to the beginning of the XX century at different stages of development of mining, applied and artistic crafts, we see that this topic is poorly studied in the analysis of historical sources in the field of mining and processing of minerals. This gap in the history of the homeland is marked by the following cases. Information on mining and processing of precious metals and other minerals is not sufficiently detailed in the scientific literature. The research can be seen to be limited to a small number of sources, some of which are mainly medieval written sources and data obtained as a result of archeological excavations. This gap in the history of the homeland is marked by the following cases. Information on mining and processing of precious metals and other minerals is not sufficiently detailed in the scientific literature. The research can be seen to be limited to a small number of sources, some of which are mainly medieval written sources and data obtained as a result of archeological excavations. Large amounts of data in numismatics, philology, geography, and other sources have been left out of the researchers' focus. In our view, the history of mining and processing of minerals in the territory of the Bukhara Emirate is a topical issue in the history of Uzbekistan.

### **II. Methods and Level of Study**

The article is based on the principles of generally accepted historical methods - historical, comparative and logical analysis, consistency, objectivity. After the occupation of Turkestan by Tsarist Russia in the late 19th and early 20th centuries, the extraction and processing of minerals in the country went in three directions: through statistical studies in the interests of industrialists and engineers, carried out through research conducted by scientists-historians, ethnographers, geologists and local historians.

In the period leading up to the October coup, Russian officials, officers, local historians and people interested in collecting statistics on gold, silver and other minerals, their mining technology and artisans in the Turkestan region, Bukhara Emirate and Khiva Khanate went. For example, when Tsarist official Salih Bekchurin visited Khojand in 1866, he wrote about the mineral resources in the area, such as iron, gold, silver, turquoise, and coal. [1]

In 1867-1875 he was the head of Khojand district, A.A. Kushakevich provides statistics on shops, workshops, handicrafts and enterprises involved in the processing of gold and silver, including rich deposits of minerals. [2]

Russian authors I.P. Minaev, A.F. Kostenko, D.N. Logofet and A.P. Shishov's books describing the location of gold and other mineral deposits in Central Asia were published. [4] Colonel D.N. Logofet notes that many gold, silver, iron, and copper mines have been mined in the Bukhara Emirate in the past, and that during the Russian protectorate, the population was reduced to mining and limited to small-scale mining.

Historical and geological aspects of the study of mineral extraction in Central Asia at the turn of the century A.F. Gubarevich-Radobilsky, engineers L.Mikhailov, D.V. Nalivkin [5]. During this period, geologists joined the process of studying the extraction of minerals in our country. Mining researcher in Central Asia I.V. Mushketov in 1886, engineer V.I. In 1913, Weber reported on traces of ancient mines, including mineral deposits. [6] In the late 19th and early 20th centuries, periodicals in the Turkestan region published articles and correspondence on the mineral resources of the region.

In the historical-archaeological study of the mining of minerals in the Turkestan region in the period after the October coup, scientists M.E. Masson, P.P. Ivanov also studied M.I. Bubnova, academic archeologist, orientalist Yu.F. Buryakov, geologist O.I. Islamov and others made significant contributions. In their works, they covered the history of the discovery, development and extraction of mineral deposits. M.E. Based on written sources, Masson

notes that in the 16th and 19th centuries, gold, silver, lead, copper, iron, and mercury were mined, and that Karamazor in the Ilak Mountains was famous for its gold and silver deposits. [7] M.E. Masson points out that there are no written resources available to scholars to study the history of mining in Central Asia. [8]

In the post-independence period of the Republic of Uzbekistan, significant work has been done to study the history of various stages of development of the mining industry, and many scientific works, books and articles have been published. Today, research work continues in the framework of studying the history of development of mineral resources of the country.

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### III. Research Results

In the late 19<sup>th</sup> and early 20<sup>th</sup> centuries, the mining and metallurgical industry in Turkestan underwent a unique, complex and contradictory, wave-like process.

Analysis of archival materials shows that in the late nineteenth and early twentieth centuries, not only Russian citizens, but also foreign experts appealed to the Russian government with interest in the study and development of natural resources in Turkestan. Of these, E.I. Miller (oil), silver and lead P.F. Foss, mercury M.A. Grets, gold P.A. Shoshsh, iron A.A. Pander, limestone and ozokerite K.R. Parlaumer, quartz sand N.D. Den, sulfur M.F. Latsing, turquoise I. Shpenist, mineral healing waters have been studied by German experts such as G. Terex, S. Shmidt. [9] For example, V.N. Weber and I. Krausez was engaged in the identification and study of coal, oil, salt, wax - ozokerite deposits in the Fergana Valley in the 90s of the XIX century. In 1908, the production of table salt in Turkestan amounted to 3 million pounds, in 1911 - 3.8 million pounds, in 1915 - 4.7 million pounds. seasonal workers. In the Andijan and Namangan districts of the Fergana region, the company "Lyuborot" was established to mine ozokerite. 150 shares of Lyuborot were owned by German citizen G.G. It belonged to Raupert. [10]

Oil fields also played an important role in the economic life of the Fergana Valley in the late 19th and early 20th centuries. Chimgan, Andijan, Polvontash, South Olamushuk, Moylisuv, Changirtash, Chim, Neftabad oil fields in the valley were formed and put into operation mainly in the late XIX - early XX centuries. Hundreds of materials on the opening of oil fields in the Fergana Valley have been published in the Turkestan Collection. The oil was used by locals for fuel, ointments for various wounds, and for military purposes.

The focus is on extracting kerosene from oil imported from the Chimgan and Moybulak oil fields.

Fabrics such as "Nafti beqasam", "Qora nafti", "Chimyon nafti" were woven and were popular among the courtiers. The method of digging oil into the ground by ladders is common. After the arrival of Russian businessmen, it was mined by drilling wells using steam energy. In 1904, a 278-meter well was drilled from the Chimgan oil field using steam energy. 130 tons of oil per day were extracted from this well. [11]

Brown coal and non-ferrous metals were mined in the Fergana Valley from Kyzylkiya, Sulukta, Shurob, Tash-Kumyr, Kokyongok, and its processing was carried out at enterprises in Andijan, Kokand, Fergana and Quvasoy.

Muhammad Salih in his work "Tarihi jadidayi Tashkent" (XIX century) in the Tashkent oasis Khoja Muradbakhsh, Jata and Mogul, Idris mountains, Kabutari silver mountains, Qurama mountain ranges salt, iron, lead, copper, sulfur, oil, gold, silver, ruby type, precious stones, black marble and other deposits, as well as the use of some deposits. "Metal smelters used to have smelting furnaces and workshops. Their remains are still preserved... Along the Farrak (Chirchik) River, gold diggers everywhere wash the sand and get gold... There are still the ruins of jewelry workshops in Zartalosh [12] - wrote M. Solih.

England representative of the British Mining Syndicate. Nobel came to Turkestan to gather information about copper deposits and, if possible, to obtain several permits. He told Turkestanskije Vedomosti that "copper deposits in the country are not well explored and the Russians are afraid that the British will seize all the natural resources in the country." [13] A. Nobel spent 80 percent of the syndicate's income on workers in the Russian Empire.

In 1901, the Pamir Gold Miners' Society was founded by mining engineer Juravko-Pokorsky, specializing in gold mining. At the turn of the century, Russian industrialists tried to industrialize the Pamir Gold Miners' Association. They discovered more than 15 promising deposits in the Darvaz and Kulyab principalities, including gold-rich quartz deposits. reflected in the documents kept in the Central State Archives of the mining district. [14] However, the work of the Pamir Society of Gold Miners to organize the gold industry on a modern basis has faced many difficulties and problems, and has not achieved significant results. This is due to the fact that the initial amount of credit allocated to the community in this area did not allow to speed up the work. In 1915, Turkestan Mining District Mining Engineer S. In his report to the Governor-General of Turkestan, Leonov outlined the main problems in the development of activities in this area in his report "On the purchase of gold on Russian property in

Turkestan."In Turkestan, including the Bukhara Emirate, hundreds of pounds of gold are mined annually, most of it bypassing the Russian treasury and smuggled to Kashgar, Afghanistan, Iran and other countries. and to ensure that the gold they mine is purchased by the government at fair prices.

Although the study of the country's natural resources began long ago in the XVIII-XIX centuries, in 1867, after the establishment of the Governor-General of Turkestan and the subjugation of our country to the Russian Empire, work in this area rose to the level of state policy. For this purpose, the Turkestan Mining District and its head-mining engineer have been established under the Governor-General of Turkestan.

The main task of this body and its head was to organize and control geological prospecting in Turkestan and the territories of the Russian Empire, to give relevant conclusions to the industrialists working within the empire for the development of mineral resources, and other powers. The Mining District and its leaders at various times have led the exploration and development of the country's mineral resources. The following figures show that the interest in the development of mineral resources in the country has increased since 1899, the number of applicants to the mining engineer has increased:

- In 1899, 112 people applied, 40 of them were issued permits.
- In 1900, 160 people applied, 97 people were issued permits.
- In 1901, 192 people applied, 88 people were issued permits.
- In 1904, 200 people applied and 26 people were issued permits. [15]

In order to accelerate the development of the country's mineral resources by the colonialists, funds were also allocated to those involved in this work through state banks. For example, mining engineer D.K. Mishenkov will submit to the bank documents related to his copper and coal deposits near the village of Hojikent, Tashkent district, as well as copper-tin deposits near the village of Burchmulla, to secure a loan from the state bank for equipment needed for mining. The State Bank Department, the Turkestan Mining District Mining Engineer, was asked about the validity of these documents and D.K. Mishenkov inquired about the state of the mining industry. [16]

As a result of the construction of the railway in Turkestan, more attention will be paid to mining and prospecting in the country, and coal and oil fields will be explored and developed over large areas to meet transport and industrial needs. Even the Ministry of Agriculture and State Property of the Russian Empire intervened in the development of Turkestan's mineral deposits and gave certain recommendations to the Governor-General of Turkestan to allocate the deposits to those close to them. For example, in 1898 the coal mines near the village of Navkata, owned by the merchant Petrov, were given to Anton Glaz, and on August 4, 1900, the Kokinasay coal mine near Khojand was given to Prince Lobanov-Rostovsky without any trade or conditions. Special attention was paid to the extent to which the owners of the mines benefit from the mineral deposits and their proximity to settlements, the availability of sufficient manpower, the proximity of modes of transport to the sites of entry into the mines. As a result of their work, attempts were made to establish mining in Turkestan at the industrial level, which was to meet the growing needs of the empire for gold, oil, coal and other similar minerals. This led to the replenishment of the mineral wealth of our country by the imperial state treasury, the ruthless plunder of the country's wealth. In 1917, there were 1,428 industrial enterprises in Turkestan, of which 483 were in Fergana, 323 in Syrdarya, 253 in the Caspian Sea, 175 in Samarkand, 92 in the Bukhara Emirate, 89 in the Ettisuv region, and 13 in the Khiva Khanate. [18] Of the existing industrial enterprises, 25 were oil and coal fields and 15 were metal foundries.

#### **IV. Conclusions**

In conclusion, it is worth noting the following:

- The main goal of the work carried out in Uzbekistan in recent years in the field of geology and mining is to further strengthen our economic power and ensure the well-being of our people. In this regard, we believe that a scientific study of the past of the mining industry, drawing appropriate conclusions from them is useful for the future.
- In the middle of the XIX century, internal conflicts in the khanates, political fragmentation had a negative impact on the development of science and failed to ensure the development of mining. In the late nineteenth and early twentieth centuries, the colonial system in our country did some work in the field of mining and geology, exploration and processing of mineral resources, but at that time it was not as high as in developed countries.
- Exploration, development and processing of mineral resources during the study period was carried out mainly in the interests of the metropolis, the interests of the colonial administration.
- The development of the mining industry in Turkestan has not served the economic, social and cultural development of the local population.
- At a time when Uzbekistan pays great attention to the development of geology and mining, it is expedient to study its historical stages of development and draw appropriate conclusions.

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