



HISTORY OF MINING IN THE TERRITORIES OF UZBEKISTAN

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Annotation. *In the mountainous regions of Uzbekistan, south of the Kyzylkum, flint deposits have been found that have been used for many millennia. These include Uchtut and Ijond in the Zarafshan oasis, Ahangaran in the Tashkent region, Kopchikai in the Fergana Valley, and Chakmoktepa in the Nurota mountains. Products from the deposits were transported to settlements as raw materials or the items were processed in workshops near the deposits. The article analyzes materials on the history of mining found in the territories of Uzbekistan.*

Keywords: *mining, favorable geographical location, mining, metalworking, weapons, tools.*

Introduction. The history of mining in the territories of Uzbekistan began in the Paleolithic-Old Stone Age. The earliest people began to settle in areas with access to water, food, and raw materials, which was an important vital need [3, p. 15-17].

The need to make various types of labor and hunting tools from convenient types of stone laid the foundation for the development of primitive mining. Until the discovery of metal (IV millennium BC), people made tools from quartzite, flint, jasper, limestone, and others [2, p. 102].

Analysis. In the mountainous regions of Uzbekistan, south of the Kyzylkum, flint deposits have been found that have been used for many millennia. These include Uchtut and Ijond in the Zarafshan oasis, Ahangaran in the Tashkent region, Kapchigay in the Fergana Valley, and Chakmoktepa in the Nurota mountains [8]. Products from the deposits were transported to settlements as raw materials or the objects were processed in workshops near the deposits.

In the Early Paleolithic, stone awls, hand axes, and simple, crude choppers made of river stones were made; in the Middle Paleolithic, spear-shaped stone tools appeared; in the Late Paleolithic, new methods of making weapons emerged, and the forms of stone chisels, scrapers, thin blades, and other tools began to multiply [9, p. 11-13].

Since the manufacture of tools from stones was difficult, laborious and time-consuming, people tried to find suitable types of stone for weapons. As a result, new deposits were developed.





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Various studies conducted to date allow us to clarify many issues related to the period of extraction and processing of minerals, as well as the level of mining and blacksmithing at certain historical stages.

A flint workshop and flint raw material "mines" were discovered near the villages of Ijand and Uchtut, which were studied by archaeologist M.R. Qosimov in 1958. Flint fragments and flint flakes belonging to the Upper and Late Paleolithic were found in the area of this workshop, which was discovered near the village of Uchtut. Thus, the Uchtut workshop was the primary place for the manufacture of weapons for long periods of time. Neolithic mines have also been found at this site, and 13 mines were explored by archaeologists between 1958 and 1966 [10, p. 12].

Another ancient mining site is the Selungur Cave, located about 100 km southwest of Fergana, on the western outskirts of Khaidarkan. According to scientists, this huge cave was 120 meters deep, 34 meters wide, and 25 meters high. Archaeological excavations have been carried out since the 1980s. Five cultural layers 20–40 cm thick were discovered in the cave. This indicates that primitive people lived in this cave in 5 historical stages and periodically left their settlements for long periods. A rich collection of stone tools, animal bone remains, and human remains of the archanthropic type (10 teeth and a fragment of a shoulder bone) were found here. This collection included hand axes, large stone scrapers and knives, and a large number of carved and worked serrated tools. They were mainly made of jasper, siliceous flint, and siliceous limestone [10, p. 12].

Although most of the material dates back to the Middle Ages, some data indicate that man was familiar with the mineral wealth of the Karamozar and Southern Chatkal regions from ancient times.

Mining in the studied area began in the Old Stone Age. Limestone was mined from the mountains here from the Paleolithic to the Neolithic periods. These works can be considered the beginning of mining activity in the Tashkent oasis, the first stage of the development of the natural resources of the region [4, p. 21-27].

Archaeological research shows that metal mining in the Chatkal-Kurama region began in the 2nd millennium BC. Traces of Bronze Age mining have been very rarely recorded in the Chatkal-Kurama region. Some open pits in Aktashkon, which lead to shallow underground passages, can be attributed to the Bronze Age. Materials from Aktash also indicate that sulfide mining in Karamozar began in the Late Bronze Age [1, p. 98].

The data from Kayrakkum are particularly noteworthy. Several iron smelting sites dating back to the Late Bronze and Early Iron Ages have been found here. Most of the identified settlements contain heaps of iron alloys, and the inhabitants of some settlements may have been engaged in iron smelting specifically. This is especially true of the settlements belonging to the "central group", since quite large heaps associated with smelting activities have been encountered here [5, p. 182, 196-231]. Among them,





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several large heaps and small spills are mainly associated with the smelting of copper ore. The large volume of smelting indicates the scale of mining operations. Special studies of minerals, alloys and bronze objects (single-edged and double-edged knives, needles, bracelets, spear and arrowheads, bracelets, corals and buckles) found at the sites in Kayrakkum help to determine the location of the raw material sources, but the very fact that iron smelting sites were concentrated in this area indicates that Karamozar was one of the important sources of raw materials.

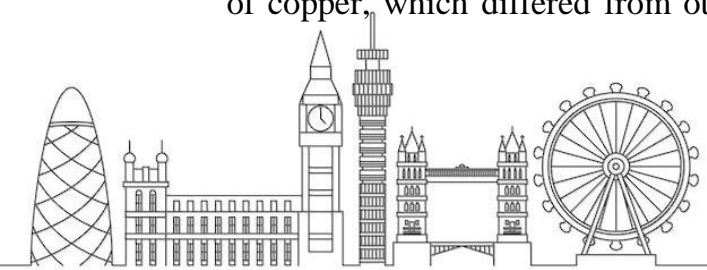
Some precious metal deposits in this area, primarily gold and silver, can be dated back to the 1st millennium BC. Among the gold deposits, some monuments in Kuchbulak are considered the oldest. Among the areas where silver was mined, Konimansur should be noted. Bronze arrowheads were found here.

The discovery of labor tools used by miners is of great importance for describing mining operations. Several crude stone hammers and a large stone chisel weighing about 8 kg were found at sites where mining operations were carried out in the Bronze and Early Iron Ages. Large tools were mainly intended for open-pit mining. Relatively small tools were also used in closed mines. Some tools were used by hand, while handles were attached to some. Round or rectangular stone hammers served as tools. Tools were not specially processed [7]. Compared with neighboring regions, miners in the Chatkal-Karamazar region probably used iron tools in addition to stone tools. In the middle of the 1st millennium BC, iron tools appear among the tools used by miners.

The discovery of material objects from a number of archaeological sites testifying to the ancient history of our ancestors - the Sopollitepa and Zharkotan monuments in the Surkhandarya region (mainly ruler's insignia, seals, jewelry and pottery), the Lavandog mound in the Aironchi village of the Kyzyltepa district of the Navoi region (a sword made of bronze and iron, a dagger), Beshbulak, Lavlakon (copper needles, beads) - testify to the way of life of our ancestors for thousands of years. It was natural that the development of mining production and primitive economic needs prompted people to search for raw materials that were better than flint and other stones even in the Stone Age. Judging by the mineral resources and their location in Central Asia, people encountered metals such as natural copper, gold, and meteorite-iron as early as the Neolithic period. This led to the beginning of a new era in mining production as early as the 4th millennium BC [6].

By the 2nd half of the 4th millennium BC, the first metal tools made of copper began to appear in the centers of ancient Eastern civilizations - Mesopotamia and Egypt, Asia Minor and India, and Central Asia. This indicated that the Stone Age was giving way to a new era in human history - the Metal Age, and that the Metal Age, which played an important role in human development, was beginning.

Conclusion. Studies have shown that humanity's acquaintance with copper began as early as the Stone Age. But it took people several hundred years to master the properties of copper, which differed from other types of stone. It is natural that in the process of





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searching for suitable and durable stones for making the necessary tools of labor, primitive people came across copper deposits located in the surface parts of the earth. Gradually, the properties of this new raw material were mastered, and it was discovered that it changes its properties under the influence of fire, taking on various forms. Later, copper was smelted and various tools and military weapons began to be made from it. This process, as it improved, led to the discovery of numerous copper mines in Central Asia and the emergence of metal smelting workshops around them.

References:

1. Буряков Ю.Ф. К истории горного дела и металлургии..., – С. 98.
2. Исламов О.И. Из истории геологических знаний в Средней Азии. –Ташкент: Фан, 1976. Кн.1. – 102 с.
3. Кабиров Ж., Сагдуллаев А. Ўрта Осиё археологияси. –Тошкент: Ўқитувчи, 1990. – Б. 15-17.
4. Касымов М.Р., Ростовцев О.М. Мастерские каменного века в долине р. Ангрен //ИМКУ. Вып. 8. – Т., 1969. – С. 21-27.
5. Литвинский Б.А., Окладников А.П., Ранов В.А. Древности Кайрак-кумов (Древнейшая история северного Таджикистана) – Душанбе, 1962. – С. 182, 196-231.
6. Лордкипанидзе Л.Н. История геологического изучения Узбекистана в системе цивилизации Азии. – Т., 2001. – С. 11; Сагдуллаев А. Қадимги Ўрта Осиё тарихи. – Т.: Университет, 2004. – Б. 21
7. Массон М.Е. Археологические материалы к истории горного дела в Средней Азии. Горные инструменты // САГРУ Бюллетень. – Т., 1930. – № 2.
8. Массон М.Е. К истории горного дела на территории Узбекистана. –Ташкент: 1953. – С. 6-7; Касымов М.Р. Кремнедобывающие мастерские и шахты каменного века Средней Азии. –Ташкент: Фан, 1972. – 160 с.; Темиров Ғ.Т., Одинаев З.Д. Қадимги давр кончилиги ва металлургияси. – Навоий, 2004. – Б. 8-10.
9. Сагдуллаев А. Қадимги Ўрта Осиё тарихи. – Тошкент: Университет, 2004. – Б. 11-13.
10. Санакулов Қ., Раупов Х., Хаитова О. Ўзбекистонда кон-металлургия тарихи. – Тошкент: Mashhur-Press, 2019. – Б.12.

