QOZIZODA RUMIY, G'IYOSIDDIN JAMSHID, ALI QUSHCHI FAOLIYATI

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Annotatsiya: Mazkur maqolada Markaziy Osiyoda ikkinchi Renessansga davrida ijod qilgan ulug' mutafakkir shoh va olim Mirzo Ulug'bekning ustozlari Qozizoda Rumiy, G'iyosiddin Jamshid va eng iste'dodli shogirdlaridan biri, o'z davri Ptolomeyi deb shuhrat qozongan alloma Ali Qushchi asarlari va dunyoqarashlari ilm-fan tarixida o'ziga xos o'rin tutishi haqidagi qarashlar talqin etilgan.

Kalit so'zlar: Ali Qushchi, faylasuf, alloma, iste'dod, falsafa, meros, talqin.

Аннотация: В данной статье рассматривается место и значение великих мыслителей, таких как Козизода Руми, Гиясиддин Джамшид и один из самых выдающихся учеников Улугбека — великий учёный Али Кушчи, которых сравнивают с Птолемеем своей эпохи. Освещается их вклад в историю науки, философии и мировоззрения в контексте эпохи Второго Ренессанса в Центральной Азии.

Ключевые слова: Али Кушчи, философ, учёный, талант, философия, наследие, интерпретация.

Annotation: This article explores the place and significance of great thinkers such as Qozizoda Rumi, Ghiyas al-Din Jamshid, and one of Ulugh Beg's most outstanding disciples — the renowned scholar Ali Kushchi, who is likened to the Ptolemy of his era. It highlights their contribution to the history of science, philosophy, and worldview within the context of the Second Renaissance in Central Asia.

Key words: Ali Kushchi, philosopher, scholar, talent, philosophy, heritage, interpretation.

Introduction

It is known that after the independence of 1991, a door was opened to wide opportunities for the study of our harmonious and exuberant history. During the period of the Uzbek Soviet Socialist Republic, the condemnation of our national identity, various prejudices against our great history were instilled. However, in the years of independence, scholars, poets and allomas who wrote books in various fields that left an indelible mark on our history began to be presented to the general public. The lexical meaning of" Renaissance "is derived from French, meaning" rebirth". As a term, the word has a much wider content, means that after a long-term stagnation in culture, science, art, education, in general, in the life of society, it revives and quickly develops, the system of social consciousness and values enters a new qualitative stage. In the early period, the term was applied to the period of development in Europe from the 15th to the 16th centuries after medieval fanaticism. The so-called Renaissance social phenomenon was translated into Uzbek as the "Renaissance"[1]. Scholars and allomas, who also lived and worked in Central Asia during the first Renaissance (9th-12th centuries), are distinguished by their immense and unparalleled achievements in the fields of science, philosophy, literature and art. The main representatives of this period are the following, Al-Khwarazmiy, Farabi, Abu Rayhan Beruniy, Ibn Sina and other scientists with unparalleled knowledge. In addition, another great Renaissance was possible, which together coincided with the era of Amir Temur, who left a deep mark on our national history. The Timurid Renaissance reached its peak in the 15th century, when the Mongol invasions and invasions ended. This period included the late 14th century to the early 15th century. During the reign of Amir Temur and the Timurids, material and spiritual assistance was given to scientists and to the owners of Science who created in various fields. Money was allocated from the Treasury for the creation of the people of science. Amir Temur paid special attention not only to science, but also to the knowledge of his children and grandchildren. A vivid example of this is one of the representatives of the Timurid dynasty - Mirzo Ulugbek(full name: Muhammad Taragay ibn Shohrukh ibn Temur Ulugbek Koragon). In addition Mirzo Ulugbek conformed to the concentration of mature allomas of his time and field in one place. In particular, his mentor and disciples Kazizoda Rumiy, Ghiyosiddin Jamshid and Ali Qushchi are especially noted.

We know that Mirzo Ulugbek is the person responsible for the construction and financing of the Observatory, which is convenient for conducting research of the largest and most unique specialists of their direction in the Exact Sciences in Central Asia, the middle and Middle East. A major manifestation of the unique architectural art of the 15th century is the Ulugbek Observatory. After the completion of this observatory, at the request of Ulughbek's teacher Kazizoda Rumiy and his mentor, Ghiyosiddin Al-Koshiy and his beloved disciple, Ali gathers the birders around.

Jamshid ibn Mas'ud ibn Makhmud Ghiyosuddin al-Koshiy (more commonly known as Ghiyosiddin al-Koshiy) (1380 in Koshan (Iran)-1429 (eki 1430) in Samarkand – famous alloma, Sultan of Engineers. First lived and operated in Herat. In 1417, Mirzo arrived in Samarkand at Ulugbek's invitation, where he remained for the rest of his life. Mirzo also made a Mudarris in the ulughbek madrasa. In addition, he was engaged in the science of mathematics and falakiyot, translated the works of ancient Greek and Iranian scientists and wrote commentaries on them. With his scientific work and mature potential in various fields, he began to attract the attention of scientists. Kazizoda Rumiy, the beloved teacher of Mirzo Ulugbek in particular, also makes it possible for the owner of unparalleled knowledge to gain a place in science by continuing his scientific work at the Observatory in Samarkand. Mirzo begs Ulughbek to invite Ghiyosiddin Al-Koshy to Samarkand. In 1417, Mirzo arrived in Samarkand at Ulughbek's invitation, where he remained for the rest of his life. By autumn 1420, the observatory building was ready. During the first ten years of the Observatory's operation, it was headed by al-Koshy. Mirzo also made a Mudarris in the ulughbek madrasa. Alloma's works were devoted to the issues of astronomy, mathematics. They were used as a textbook in the madrasa, as a guide by the scientific staff of the Observatory. He headed the Samarkand Observatory, published an early systematic account of the theory of vowel fractions. The "Hōkon Ziji" (1414) composed by Al Koshy is a reworking of the "Elkhan Ziji"of Nasiriddin at-Tusi. That is, Zid Khogani in Persian in his" completion of Az-Zid al-Ilkhani": this book is one of the important astronomical works of Koshani. Koshonius completed the work in 1413. The purpose of this definition is to correct the errors in the horoscope written by Tusi. Despite his criticism of the works of zij Ilkhani in the preface to his "Zij", Koshiy refers to its author with great respect and reverence.[2] In addition, in" the ladder of the heavens " (1407), al-Koshy discusses distances to the Moon and Sun, their size, distances to the sayoras and to the circle of Immobile stars.[2] " Explanation of observation instruments " (1416) describes the instruments used in observational astronomy. It also contributes to a certain extent to the field of mathematics, not limited to astronomy. A vivid example of this is his work" the key to arithmetic". He describes with this work a sixty system of calculation. Astronomical treatises of the ancient Greeks recorded only the fractional part of the number in the hexadecimal system, while the whole part was written in the traditional letter Ionic system. Al-Koshy also proposed crushing the entire part in the sixty system. In doing so, he returned to the form of writing used by the ancient Babylonians, but did not know it himself. In the same treatise, al-Koshy introduces vowel fractions, with which he issues the basic rules regarding the performance of 150 acts, cites methods for transferring sixty fractions to vowel fractions and vice versa. Al-Koshy takes an important step towards improving mathematics in his work" the key to arithmetic".[8] The ancient Greeks wrote the fractional part of the numbers in the hexadecimal system in astronomical accounts, while the whole part was represented in the letter "ionic" system. This created a complex computational process. Al-Koshiy reform this approach, offering to write whole pieces in a sixty-piece system as well. While this proposal is similar to the writing form of the ancient Babylonians, it offers a new approach without knowing this historical connection. Al-Koshy also proposed crushing the entire part in the sixty system. In doing so, he returned to the form of writing used by the ancient Babylonians, but did not know it himself. In the same treatise, al-Koshy introduces vowel fractions, with which he issues the basic rules regarding the performance of 150 acts, cites methods for transferring sixty fractions to vowel fractions and vice versa. Al-Koshy takes an important step towards improving mathematics in his work" the key to arithmetic". The ancient Greeks wrote the fractional part of the numbers in the hexadecimal system in astronomical accounts, while the whole part was represented in the letter "ionic" system. This created a complex computational process. Al-Koshiy reform this approach, offering to write whole pieces in a sixty-

piece system as well. While this proposal is similar to the writing form of the ancient Babylonians, it offers a new approach without knowing this historical connection. One of the most important aspects of his work is his introduction of the concept of decimal fractions and the development of basic rules regarding their work. Al-Koshy details ways to change fractions in a hexadecimal system to decimal fractions and vice versa. This system served to simplify and improve accuracy of mathematical calculations. He also develops rules for performing 150 different mathematical operations with decimal places, which played an important role in the development of mathematics of the time. This work not only contributed to the improvement of computational systems, but also served as the basis for modern mathematical practices and algorithms. Al-Koshy's innovative approach took mathematics of the time to a new level, increasing the importance of his scientific heritage. In addition, in Koshi's Persian, language letters to his father, valuable information about Ulugbek and his astronomical school is found. For example, in a letter sent by Koshy to Koshon around 1421, Ulughbek is noteworthy for the interesting information related to the scientific activities of Rumi in Kazizo, Ghiyosiddin Koshy himself and other scholars of the Samarkand school, as well as for the versatility of plaques on the construction of the Observatory. The letter provides information about the sundial installed on the wall of the Observatory. The Persian text of the letter was translated and published in Uzbek (1996) and other languages. In addition, Koshy's "Sullam as-samovat (ladder of the heavens)", "Nuzhat al-khadoyik" ("Gardens sayrit")," Risola al-Watar alx-jayb "("treatise in the choir and sine khaki.), and these works have come down to us, and have taken a significant place in the scientific and literary milieu of Movarounnahr.[3]

In conclusion: in his letters, Giyosiddin Koshy gave valuable information about Ulugbek and his astronomical school. In particular, a letter to Koshan written around 1421 contains detailed information about the activities of Ulugbek, Rumi in Kazizo, and scientists of the Samarkand Scientific School, the construction of an observatory, and the sundial installed on its wall. These data are historically and scientifically very significant. A man who devoted himself to science until the end of his life, and he was active in the scientific framework of Ulugbek and died in Samarkand in 1429, during his work at the Observatory in Samarkand. Koshy is known for his major works in astronomy and mathematics.

In Kazizoda Rumi wrote many works devoted to science, including:

In mathematics:" brochure fi-L-account"," Dar Bayani recreation jaybi yak degree","Misoha". In astronomy:" Sharh mulaxis fi-l-hay'a"," brochure fi-l-hay'a va-l-geometry","Sharh tahriru-l-Majistiy". In geometry and other sciences: "Risola fi rub'i-l-mujayab", "wisdom of the city-l-ayn", "Risolatun fi-l-jiha".[11]

In kazizo, Rumi was one of the great scientists of his time and made a great contribution to the development of mathematics and astronomy. The scientific achievements of the Ulugbek Observatory have reached a high level thanks to his contribution. Kazizoda's scientific heritage is an invaluable asset to the entire Muslim world and World Science.[7]

Ali was considered one of the most talented students of the Birdman Mirzo Ulugbek and one of the great scientists of his time. He made important discoveries in mathematics, astronomy, and Linguistics. His name was" Qushchi " (Eagle), a title he received due to his father's involvement in raising birds at the Sultan's court. Ali Qushchi (pseudonym; real name-sharifi Mavlono Alouddin Ali ibn Muhammad Qushchi Samarqandi). The scholar Kohna was born in Samarkand in 1403. Mirzo Ulugbek, a young scientist orphaned by his father, is noticed and brought up. Receives basic knowledge in Samarkand. Primarily a Sharia, and thus together mathematics is an in-depth study of the science of astranomy. Ulugbek and Kazizoda are mentored by Rumi. to improve his education, he went to Kirman, Iran, in 1414 and received 3 years of education in the madrasa there. He studied mainly natural sciences, in particular falakiyot, mathematics, returned to Samarkand in 1417. This was the time when the construction work of the observatory was being carried out by Mirzo Ulugbek. After graduating from the madrassa, it was here that he trained in falakiyot and mathiyot, engaged in scientific work. Ulugbek is also actively involved in the construction of the Observatory. It was during this period that he wrote the "account booklet" and the "Astronomy booklet", and gained a great reputation among the people of science. When the Ulugbek observatory was launched in 1428, he made observations here under Ulugbek's direction, continuing to write pamphlets. Ali Qushchi also contributed to the writing of Ulugbek's "Ziji jadidi

Koragani". In 1438, Ulughbek sent Ali Qushchi as an envoy to the Chinese Kingdom, who, upon his return from China, wrote "Mathematics and astronomical geography".[3]Together with master vas hu, he is forced to collect all his scientific legacies after the death of Mirzo Ulugbek, who remained as his father. Because political disunity had begun within the country. In this critical situation, the burden of preserving all scientific heritage falls on Ali Qushchi. 1465 went to Istanbul, Turkey. But since he had little time in Istanbul, it was not possible to carry out major work here. Shortly after the Ottoman Turks conquered Istanbul in 1453, the city became a meeting place of Eastern and Western cultures. It is known that in Europe at that time there was a huge interest in Oriental Science and culture, and Europe was thirsty for the scientific achievements of the East. In Istanbul, artists from Italy, Germany, Austria and the Netherlands were gathered, in addition to specialists in astronomy and mathematics. Thus the news of Ulugbek and his "Zij"reached Europe at the end of the 15th century AD. In this case, Ali Qushchi is in great service. [3]

He was active in Samarkand and Istanbul, contributing greatly to the development of science. His works are mainly in the fields of astronomy and mathematics, and are of great importance within the Islamic scientific tradition. The most famous among the scientific works of Ali Qushchi:

1. "Sharh al-Mulakhkhas fi al-hay'a"
2. "Risola fi al-hisob"
3. "Risola fi al-mantiq"
4. "Sharh at-Tajribat al-hay'a"

These works played a large role in teaching mathematics in the middle and Middle Eastern countries during the 16th and 17th centuries. He wrote reviews of Ulugbek's "Ziji" and al Koshy's "ladder of Heaven", a number of works on linguistics, "the book on China". Ali Qushchi died in Istanbul in 1474.[1]

Scientists, writers and architects collected in Samarkand by Amir Temur made worthy contributions to the development of Science and culture of the XV century. Ulugbek madrasa and observatory are also Academies of their time. It is an Academy A.Kazizoda brought together Rumi, Ghiyosiddin Jamshid al-Koshiy, Ali Qushchi and other great mathematicians and astronomers. In Herat, which became a scientific and Cultural Center in the 2nd half of the 15th century, a kind of scientific and evil society arose around Navoi, composed of scientists, writers, artists, musicians and others.[11]

On the initiative of the three great scientists, the development of the exact sciences and the recognition of Asian scientists by European scientists are the scientists at the forefront of thinkers who have made a great contribution to the world recognition of the Ulugbek Academy. Their services to science are invaluable, their works are a source of knowledge, and their lives are a lesson and an example for each of us.

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