# THE CONTRIBUTION OF CENTRAL ASIAN SCIENTISTS TO THE DEVELOPMENT OF SCIENCE DURING THE ABBASIAN PERIOD

Sevinch Sukhratovna Tilabjonova History Student Chirchik State Pedagogical University E-mail: tilabjonovasevinch@gmail.com

#### Abstract:

This article highlights the significant contribution of the scholars of our country to the renaissance of Islam. It is also reported that the Abbasid caliphs created wide opportunities for the development of science and constantly supported the people of science. It should also be recognized that the city of Baghdad is highly developed as a center of science. It is also noteworthy that all necessary conditions were created for young people who are hungry for knowledge from different parts of the Caliphate to gather knowledge in a single center.

**Keywords**: Abbasids, Mowarounnahr, Khurasan, Damascus, Baghdad, Harun al-Rashid, Al-Ma'mun, Musa al-Khorazmi, Ahmad al-Farghani, Abu Nasr Farabi.

#### Introduction

As the Abbasids came to power, the caliphate in Movarounnahr, Khurosan, Iran, directed against the Ummawis, had relied on forces fighting for national independence. In the era of the Abbasids, naturally, in these regions, especially the nobles from Sogdiana, Bokhtari, Khorezm (for example, the Barmakians, a family of talented Ministers), people of science, culture, play a decisive role in the ideological, political and economic life of the caliphate. The spiritual wealth of the caliphate was created by these same compatriots.

The capital of the caliphate was moved from Damascus to Baghdad in 762. Scientists also move to the new capital. Baghdad will soon become the scientific center of the state. The Abbasid caliphs al-Mansur (754-775), Khurun ar-Rashid (786-809) and his son al-Ma'mun (813-833) not only expressed sympathy for the development of science, especially philosophy, mathematics, astronomy, but also sponsored its development. Under khorun ar-Rashid, many libraries are established in Baghdad. The largest of these was the Khalifa library. The libraries bring books from different regions of the caliphate and foreign lands, which many translators, scholars, turn from other languages into Arabic. Many of the scholars who have made their work in Baghdad are our countrymen and form the majority of the creators of the so-called "Arabic science". Unfortunately, the ancient Khwarezmian culture today, information about his science has not survived.<sup>1</sup>

While the Arab Caliphate was ruled by two dynasties, the work carried out during these dynasties was also more homogeneous. For example, under the ummahids, the main emphasis

<sup>&</sup>lt;sup>1</sup> Ф.Сулаймонова. «Шарқ ва ғарб». «Ўзбекистон». Т:1997. 192-б.



was mainly on the occupation of New Territories. This policy was only discontinued when the Caliph came to the era of Umar ibn Abdulaziz. The era of the Keying caliphs was largely spent suppressing uprisings and unrest. The early Abbasid rulers, on the other hand, were preoccupied with the physical destruction of the surviving descendants of the earlier Ummahic rulers and those who admired them. For this reason, science was not addressed at that level during this period. But this does not mean that scientists have not matured in their time. Most caliphs were holders of knowledge who had a deep grasp of religious and secular knowledge. The focus of this period was on politics.

From the time of Caliph al-Mansur, however, attention also began to be paid to the development of ilm-Marifat after the policy had somewhat fallen to a dead end. The capital city of Baghdad became the center of ilm-Marifat. In a short time, many scientists were eaten in the city of Baghdad. Literally, the city of Baghdad was the light of science of the medieval East. And from this same place later Science spread to the West. The biggest mistake of the West is the inability to preserve the science of antiquity. And the East studied the science of the same antiquity in depth and brought scientists to the world.

Khwarazmi was born and raised in the Khwarazm region. In the literature, 783 is taken as the year of his birth. He received his first education and knowledge in various fields mainly from many mentors in his native Central Asian cities. Sources also add al-Majusiy and al-Qutrubbuliy to Khwarazmi's name. The first of these indicates that the scientist came from the original indigenous inhabitants of Khwarezm, that is, from the family of the patrists (Arabic "majus" means patristic), but also from the family of the priests of this patristic religion, while the scientist himself or his father was majusius, who later adopted Islam. In Khwarezm, the majusis maintained their religious practices for a long time after Islam. This is evidenced by Berunius in his work "Osor al-boqiya". The latter of the given names suggests that Khwarezmian spent his years as a moose near Baghdad in the neighborhood of al-Qutrubbul on the Dajla. Usually Arabs give a person several names — "proportions", depending on their characteristic features, craft, favorite habits or place of residence. The name Al-Qutrubbuli of khwarezmi is thus derived. It is known that al-Ma'mun would first become Viceroy of Caliph Aaron arrashid in Marw from 809, then caliph from 813, and moved to Baghdad in 819. Al-Ma'mun recruited Khwarazmi, movarounnahrlik and other scholars from khurosan to his court during his stay in Marw. Only 10 of the more than 20 works of the khwarezmian Pen have survived to us. These are" a short book on the account of Al-jabr and al-Muqabala", an algebraic work," a book on Indian account "or" a book on Addition and subtraction " - an arithmetic work," Book surat-ularz " — a work on geography. "Zij", "a book about working with Asturlob", "a book about making Asturlob", "on the identification of Azimuth using Asturlob", "the book ar-ruhoma", "the book at-TA'rix", "a treatise on the identification of the Jewish calendar and holidays". Four of these works are preserved in Arabic, one in the composition of the work of Ferghana, two in the Latin translation, and the other three have not yet been found.<sup>2</sup>

<sup>&</sup>lt;sup>2</sup> "Ma'naviyat yulduzlari". «O'zbekiston milliy ensiklopediyasi». "Davlat ilmiy nashriyoti". T:2011. 35-38-b. **589** | P a g e



Having a place in World Science, he remained in world history as a great gomusi scientist in the recognition of World Scientists, the founder of the current science of algebra, the scientist who compiled algarithms. Khwarazmi was given the Kimga of al-Majusiy, al-Qutrubbuliy. These are also given the reason for his beliefs and where he lived. Khwarazmi was born in Kat, Khwarazm and spent the last years of his life in the village of Kutrubbul, Baghdad. He heads the ILM Dargah, founded in 809 by caliph al-Ma'mun. It is considered to be distinguished by the disciplines of mathematics, astronomy and geography. His main work was in mathematics. To the extent that there are almost no translated documents that provide information about our compatriot, who lived and worked in the 9th century. Philologist scholar Aziz Qayumov ("Ahmad al-Farghani", - t.: Science, 1990), Ahmad Farghani grew up thirsty from youth to science to learning. He created mainly in natural sciences: falakiyotology, mathematics, geography. Ahmad Farghani's creative work is associated with Baghdad, with the "Baitul Hikma", which operated under the leadership of the great thinker scholar Muhammad Ibn Musa al-Khwarazmi. He made a worthy contribution to the emergence and scientific progress of Arabic terminology. Personally attended the construction of observatories in Baghdad and Damascus. He headed the school of falakiyotology, which was established under the observatory built in the mausoleum named after Raqaq of Baghdad. In collaboration with his contemporary, professional scholars, and disciples, Ahmad al-Farghani conducted the investigation of information in Ptolemy's "table of stars". His research work on falakiyotology has produced creative results. The six books of Ahmad Farghani are known and famous to the world. "Book Fi method ilm an-Nujum" ("book on methods of Falakiyot science"). The text of the original manuscripts of the treatise, although identical, is kept under five titles. That is, the "Treatise Of Falakiyot" dedicated to Al-majisti, the "causality of the spheres of Falak", the "AL-Majistiy" (Ptolemy's "Almagest"), the "Ilm al-haya" ("Science of Falakiyot"). The rare manuscripts are in England, France, the United States, Morocco, Egypt, and St. Petersburg.<sup>3</sup> Another great intellektual active in Beit ul-Hikma is Ahmad al-Farghani. Farghani, like huddi Khwarazmiyy, was imbued with mathematics, astranomy and geography. He wrote many works on these subjects. Shu-as well as Farghani conducted his scientific activities in Egypt. Here he headed the construction of an instrument, called the" scale an-Nil "or" Nilometer", which measured the water level of the Nile river. Like other scholars, al-Farghani's works were used in Latin translation in Spain in the 12th century and in Europe until the mid-17th century. We must also mention that if we have two grandparents named after craters on the moon, one of them is our grandfather ayni Ahmad al-Farghani. This is also a job worth taking pride in. Thanks to the fact that farobius knew perfectly all the branches of the sciences of his time and made a great contribution to the development of these sciences, commenting on Greek philosophy and making it widely known to the world, his name was glorified in the countries of the East and referred to as "Al-Muhammad as-soniy" - "the second teacher" (after Aristotle), Farobius was born into a family of military personnel from Turkic tribes in a place called Forob - O'tror on the coast of Syrdarya. Farobius received his primary education in his native country.



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Then he studied in Tashkent (Shosh), Bukhara, Samarkand. He later arrived in Baghdad, the cultural center of the arab Caliphate, to increase his education. From about 941, Phorobius lived in Damascus. Phorobius lived in Egypt and then Damascus in 949-950, where he died, and was buried in the "Bob as-Saghir" cemetery. Farobius created more than 160 works in almost all areas of Natural-Scientific and social knowledge of the medieval period. Since he is more interested in the theoretical aspects of various knowledge, philosophical content, his works can be divided into 2 Groups: 1) works dedicated to the interpretation, promotion and study of the scientific heritage of Greek philosophers, naturalists; 2) works on topics related to different areas of science. The works of farobius were widely translated into Latin, ancient Jewish, Persian, and later into other languages, from the 12th to the 13th centuries.<sup>4</sup>

Forobi's youth was spent in the capital of the arab Caliphate, Baghdad Shahri. He took a breath of the cultural environment here and became closely acquainted with scientists. He also learned from the science of philosophy. Farobius read all of Aristotle's works without leaving a single one. The result was Forobius's skills to understand Aristotle's ideas with relief and to feel the scope of his tasks and the problems he contemplated. It is said that Phorobius wrote to Aristotle's "on the soul" with his own hand: "I have read this work 200 times".

Phorobius writes, " If the kingdom complies with any demand, but wisdom leaves it, the country is left without government, deyawering. The ruling ruler of this country also loses his position. The country is doomed".

In the head of khukumat, it is permissible to sum up the following 12 innate qualities: elegance, comprehensiveness, sharp memory, perceptiveness, verbosity, thirst for science, being able to maintain moderation in every work, love for honesty and lies

hatred, nobility, hatred of wealth, justice care, determination.

One day, Forobius was asked:

- Whose knowledge is stronger: Are you or Aristotle?

Farobius replied:

- It was when I lived in that time, met him and studied under him, I would have been among his best disciples.<sup>5</sup>

Another of our scholars, who became closely acquainted with Greek science and philosophy, studied these Sciences in depth and wrote commentaries on them, is Abu Nasr Farabi. Farobius studies the works of Greek scientists so deeply and perfectly that he reaches the level of perfect and light comprehension to the subtle edges of Greek philosophy. For this reason, Farabi is not without reason given the names "Al-Muhammad as-soniy" and "Arastus of the East". Farobius is considered the largest representative of medieval eastern philosophers. What is known from history is that the places where many scientists die even if they mature from villages are, in most cases, the capital or major centers of science. We see this situation in the present.

Khwarezmians and Pharoees died in the capital Baghdad and were buried in the "Bob as-Saghir" cemetery there. Farghani, on the other hand, spends the last few years of his life in

<sup>&</sup>lt;sup>5</sup> С.Жўраева. «100 мумтоз файласуф». «Янги аср авлоди». Т:2017. 196-198-б.



<sup>&</sup>lt;sup>4</sup> A.S.Sagdullayev. "O'zbekiston tarixi" – I kitob. «Donishmand ziyosi». T:2020. 446-447-b.

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Egypt. The place where they die is also considered. In this scientific work, we were able to briefly concentrate on the work of three scholars. In fact, in this period, a huge number of great scientists grew up in science. You can write one book on their life and work. In this scientific study, however, three of them have a brief blunt posture. Another point of pride is that most of the ulama of this period have matured from the area of Movarounnahr and Khuroson.

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