

## THE FLOURISHING OF SCIENCE AND CULTURE IN CENTRAL ASIA IN THE IX-XII CENTURIES



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**Annotatsiya.** Maqolada IX-XII asrlarda ilm-fan rivoji, Sharqda ilm-fan taraqqiyotining xususiyatlari, xususan, O'rta Osiyo olimlari, faylasuflari, tarixchilarining ilmiy yangiliklari, amalga oshirgan izlanishlarining bugungi kundagi amaliy ahamiyati haqida bayon etilgan.

**Kalit so'zlar:** O'rta Osiyo, fan, madaniyat, O'rta asrlar, fan taraqqiyoti, madaniyat, ma'rifat, qadriyatlar.

**Аннотация:** В статье рассматривается развитие науки в IX-XII, особенности развития науки на Востоке, в частности, научные новации среднеазиатских ученых, философов и историков, а также практическое значение их исследований в наши дни.

**Ключевые слова:** Средняя Азия, наука, культура, Средние века, развитие науки, культуры, просвещения, ценности

**Annotation.** The article examines the development of science in the 9th-12th centuries, the peculiarities of the development of science in the East, in particular, the scientific innovations of Central Asian scientists, philosophers and historians, as well as the practical significance of their research today.

**Key words:** Central Asia, science, culture, Middle Ages, development of science, culture, enlightenment, value.

### INTRODUCTION

Many scholars have spoken of civilization, noting its connection with the spiral of historical processes. One of the first to put forward the idea of a great historical cycle of social development in the eleventh century was Abu Rehan al-Beruni in his work "Chronology". The Arab scholar Ibn Khaldun (14th century) developed the concept of cyclicity in his treatise, The Book of Corrections, emphasizing the spread of human potential as an expression of cyclicity [1:p.187-189].

**DISCUSSION.** Civilizations emerge and develop over several thousand years, with ups and downs. The 11th and 12th centuries are considered to be the period of the early Renaissance in Central Asia. During these centuries, the region's people made significant contributions to human development.

During the seventy or eighty years following the Arab conquest, in the late 8th and early 9th centuries, the political, social, and economic situation in the region began to stabilize. After the Abbasids came to power, the Arab caliphs began to better understand the importance of developing science and culture for social progress. In particular, this was reflected in the establishment of the "Baytuhikma" ("House of Wisdom") in Baghdad in 832 - an original academy of sciences that studied the rich heritage of the Greeks, Chinese, Indians, Iranians, Arabs and others in the field of science and culture. The Academy has a team of qualified translators of its works, who translate the original texts into Arabic[2:p.87].

Talented scholars from many countries, especially from Central Asia, were invited there. Among the translators were not only Muslim scholars, but also Christian-Nezatorians and Indian Buddhists. Observatories were established in Baghdad and Damascus, headed by our compatriots al-Khwarizmi and al-Farghani.

We emphasize that the House of Wisdom in Baghdad opened the flower of Islamic culture. The Muslim world of the 9th-11th centuries not only managed to preserve the forgotten heritage of Ancient Greece and Rome in Europe, but also developed and was significantly enriched by new discoveries in many fields of knowledge. All this helped to lay the foundations of modern science and civilization.

**RESULTS.** In the 10th and 11th centuries, the dynasties of the Samanids, Karakhanid and Khorezmshahs established themselves in Central Asia. A tradition of patronage of science and culture by local rulers developed. Many of them gave preference to spirituality and education, which prompted them to become patrons of the arts.

The socio-economic interests of the region's population were connected with the formation of a local centralized state, which also determined the need to develop material and spiritual culture. There was a profound development of architecture based on scientific calculations, innovations and progressive trends in architecture. Madrasahs, mosques, libraries, rabats, sanatoriums, caravanserais and palaces were built. Crafts and folk trades were encouraged, work with mountain stone was significantly facilitated. Durable bridges and irrigation structures were built.

Oral folklore develops, and the literary language of the local population is formed. The Arabic word "madrasah" means a building, a place where education takes place. Madrasahs are higher educational institutions of religious and secular profile in large cities of the region. In Khorezm and Shash, devices for observing celestial bodies were built[3:p.93].

In 998, on the initiative of Ali ibn Mamun, the ruler of Khorezm, the Mamun Academy, a temple of science, was created. This scientific center conducted research in the fields of mathematics, astronomy, medicine, jurisprudence, history, philosophy and literature. The number of educational institutions of various levels is increasing in Bukhara, Samarkand, Kuva, Merv, Tirmez, Shash, Kesh, Osh,

Khujand, Nasaf, Kermen and Andijan. Book art is developing, the skills of calligraphers, bookbinders and decorative artists are improving.

All these events contributed to the intellectual revival of the region. During this period, dozens of our compatriots enriched the world of science and culture with valuable discoveries and new views. During this period, the exact and human sciences, fiction, linguistics, various types of art and folklore developed. Thanks to the curiosity of the region's scientists, the foundations of many branches and areas of modern science and technology were laid[4:p.71].

Muhammad al-Khwarizmi was one of the first such scientists. He became a famous mathematician and astronomer. Al-Khwarizmi is responsible for the emergence of algebra and algorithms. His Complete Book of Addition and Subtraction in the Indian Style was translated from Arabic into Latin in those centuries. His contemporary, Ahmad Farghani, was also a famous astronomer, mathematician and geographer. His "Book on the Celestial Movements and Exposition of the Science of the Stars" was translated into Latin twice in Europe in the 12th century. The works of other our compatriots were also recognized by scientists from different countries and published in European and Asian languages.

Farobi gave a well-reasoned exposition of more than thirty world-famous sciences, including the theory of music, especially with regard to the harmony of sound, and Abu Abdullah Khwarizmi developed the principles of scientific classification. The question of the differentiation of sciences also occupied the minds of other scholars of the region in these centuries[5:p.63].

The importance of many linguists and literary scholars is enormous. Mahmud Kashgari created a monumental three-volume "Dictionary of Turkic Dialects", in which he gave Arabic explanations of more than 7,500 Turkic words. Yusuf Khodzib and Yusuf Sakoki were masters of this art.

It is well known that Islam emerged as a world religion in the 7th century, and that the study of Islam in the region developed significantly between the 8th and 12th centuries. An analysis of the formation and development of Islam shows that it began as a movement in the Arab world and then spread to many countries. Imam Bukhari and Termez made important contributions to the process of debate and theorizing about Islam as a religious doctrine. They became recognized throughout the Islamic world as scholars of Hadith, who confirmed the concept of Islam. ash-Shoshi and az-Zamakhshari convincingly propagated Islam and its moral aspects[6:p.115].

Maturudi argued that the interpretation of Islam should be based on reason, and not on mechanical adherence to religious authorities. Majnuni carefully developed the foundations of Muslim jurisprudence in his fundamental work "Hidaya", many of whose provisions have not lost their relevance even today, a thousand years later. The above shows that these scholars had a deep knowledge of the realities of life, understood what people were thinking, and were humane.

The views of the outstanding representatives of Sufism - Yu. Kamadoni, A. Giduvoni, A. Yasavi, M. Gazzoli and N. Kubrova - played an important role in the

spiritual life of the people. Sufism is a teaching about the improvement of the human soul with the aim of bringing it closer to God. Rethinking the works of his predecessors, Bahauddin Naqshband created a modified school of Sufism in the 14th century.

It is important to note that Naqshband lived only by his own labor, giving his earnings to orphans, the sick and other needy people; he kept away from rulers and officials and never took advantage of their gifts and treats. It is characteristic that many of the region's outstanding preachers also had secular professions - they were skilled in some craft, knew a lot about agriculture, and so on[7:p.85].

It is important to note that Islam in Central Asia played an important role in the spiritual development of the people and in understanding the noble goals of a reasonable, diligent, patient and hardworking people.

**CONCLUSION.** In conclusion, the cultural development in the Muslim East in the 9th-11th centuries had a special, unique impact on the development of world science and culture. This positive phenomenon in the Muslim East can be called the “Sharq renessansi”, that is “Sharq uyg'onishi”, “Eastern Awakening”.

The Islamic religion contains such wonderful ideas, views, teachings, philosophical, moral, cultural and spiritual principles and teachings that it is essential and important to base and rely on them in practical activities.

In the foundations of the Islamic religion, Sharia and laws, one can find many issues related to moral perfection, culture, spirituality, values, honesty, purity, faith, belief, trust and sincerity. In the teachings of the imagination, which were formed and developed on the basis of Islamic beliefs, there are also many ideas about purifying the human heart and soul, morality and living honestly, being pure both externally and internally.

In Sufism, morality, purity of heart are defined as the owner of enlightenment, truly human beauty. In this context, the ideas about “tariqat” are of particular importance. The word “tariqat” means “path” like “shari’ah”. However, this word refers more to the spiritual education of a person. Unlike sharia, tariqat is a path that arises from the inner spiritual state of a person and is the most suitable for him.

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