


The Role and Significance of Encyclopedic Scholars in the Development of Cultural Life During the 9th–12th Centuries

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	<p>Abstract</p> <p>Central Asia achieved unprecedented development in science and culture during the 9th-12th centuries. During this period, many scholars and intellectuals emerged, leaving behind a significant spiritual legacy. Their great works had a profound impact not only on the era in which they lived but also on the development of science in subsequent times. Scholars such as Al-Khwarizmi, Al-Biruni, Ibn Sina, and Al-Farabi, whose scientific legacies occupy a unique place in the development of the spiritual and cultural life of that time, played a key role. Undoubtedly, one of the main reasons for this development was the establishment of centralized states in these territories. These states created excellent conditions for the advancement of science and architecture. As a result, a culture developed that is recognized worldwide.</p>
<p>Keywords: Central Asia, Islam, Khurasan, spirituality, algebra, the Middle Ages, astronomy.</p>	

Introduction

A great history, an enduring and magnificent culture, an everlasting and unique spiritual heritage — these qualities can be listed even further. Our motherland stands out from many other nations precisely because of these characteristics.

Ancient history testifies that from very early times our incomparable spirituality and culture began to take shape. This can be clearly seen in the sacred book Avesto, which is considered the oldest source in our history. From those times up to the present day, our vast and noble spiritual and cultural heritage has continuously developed and expanded.

After the Arab conquerors entered our land (7th–8th centuries), the Holy religion of Islam was introduced and widely spread. Islam had a profoundly positive influence on the spiritual and cultural life of our region. In major fields such as science, art, and architecture, Movarounnahr and Khorasan began to achieve great accomplishments. During the great Eastern Renaissance of the 9th–12th centuries, numerous outstanding geniuses emerged in various fields of science. “At that time, there were eight major cities in the Caliphate known as “**Madina**” (metropolises). These were Madinat al-Munawwara, Baghdad, Isfahan, Nishapur, Merv, Bukhara, Samarkand, and

Nasaf,” — states Abdulkarim as-Samani (who lived and worked between 1113 and 1167) in his famous work “Al-Ansab.”¹ This indicates that three major cities of Central Asia were honored with the title ‘Madina.’ From this, it becomes clear that the spirituality and culture of the local people were highly advanced. During the 9th–12th centuries, Eastern scholars made significant contributions to world science through their ideas and works. Great thinkers such as Al-Khwarizmi, Al-Farghani, Al-Farabi, Al-Biruni, the prominent medical scholar Abu Ali Ibn Sina, and the leading hadith scholar Imam al-Bukhari emerged from our land. Below, we find it appropriate to speak about these remarkable figures in more detail.

The great scholar who made an immense contribution to world science was Al-Khwarizmi. He laid the foundation for a new branch of science known as Algebra. His works, such as *On the Calculation with Hindu Numerals* and *Al-Jabr wa'l-Muqabala*, along with various schematic tables, made an invaluable contribution to global knowledge. Even in his time, he created tables for determining the latitude and longitude of geographic locations, marking him as a remarkable scientist. The international conference held on May 15–16, 2014, in Samarkand on the topic “The Historical Heritage of Medieval Eastern Scholars and Thinkers, and Its Role and Significance in the Development of Contemporary Civilization” is a vivid testament to how extraordinary our ancestors were in the world of science and knowledge.

In his congratulatory message to the participants of the international forum “Central Asia at the Crossroads of World Civilizations” held in 2021, our President Shavkat Mirziyoyev emphasized: “During the 9th–12th centuries, recognized as the ‘Golden Age of Islamic Civilization,’ the first Renaissance took place in the territory of our country. From our land emerged great scholars such as Imam Bukhari, Imam Tirmidhi, Imam Maturidi, Burhan al-Din Marg‘inani, and Abul Mu‘in Nasafi, who became the pride and honor of the entire Muslim world. The global scientific and creative discoveries of dozens of other great scholars from our land, including Muhammad al-Khwarizmi, Ahmad al-Farghani, Abu Rayhan al-Biruni, Abu Ali Ibn Sina, and Mahmud al-Zamakhshari, had an unparalleled impact on universal human progress”² — thus giving special emphasis to our scholars who lived and worked during the 9th–12th centuries.

Ahmad al-Farghani, originally born in Fergana and primarily active in the Caliphate’s capital at the Bayt al-Hikma, became known in the West as “Alfraganus.” He is the author of major works such as *Al-Kamil fi al-Usturlab*, *The Seven Climates*, and *Fi Sanoat al-Usturlab*. His masterpiece in the field of astronomy, *Javami‘ al-‘Ilm an-Nujum wa Harakat al-Samawiyyah*, was translated into Latin by Gerard of Cremona as early as the 12th century. Western scholars benefited greatly from his scientific innovations and discoveries.

It is also noteworthy that the Italian poet Dante mentioned the great “Alfraganus” in his masterpiece *Divine Comedy*. The renowned academic I.Y. Krachkovskiy describes Al-Farghani as “a great astronomer and geographer of Central Asia.”³ From the above observations and evidence, it is not difficult to recognize that Al-Farghani’s scientific legacy has been appreciated worldwide.

¹ N.Muhammad, «Nasaf va Kesh allomalari», G‘afur G‘ulom nomidagi nashriyot matbaa uyi, T- 2006, 12-bet.

² SH.M. Mirziyoyevning 2021-yil 15-sentabrda o‘tkazilgan «Markaziy Osiyo – jahon sivilizatsiyalari chorrahasida» xalqaro forumi ishtirokchilariga yo‘llagan tabrigidan. <https://www.xabar.uz>.

³ H. Hasanov, «Sayyoh olimlar», T, «O‘zbekiston», T - 1981, 20-bet.

It is impossible to imagine world science and our spiritual culture without the scientific legacy of the great scholar and explorer Abu Rayhan al-Biruni. This eminent scholar devoted more than 31 years of his life to science and was an encyclopedic scholar of his time. Many scientists, including I.Y. Krachkovskiy, P.G. Bulgakov, G. Jalolov, U. Karimov, and A. Irisov, have conducted extensive research on al-Biruni. P.G. Bulgakov authored the monograph "The Life and Works of al-Biruni", while academician I.Y. Krachkovskiy wrote a comprehensive book about him. Krachkovskiy highly praised al-Biruni's legacy, noting: "It is easier to list the fields he was not interested in than those he studied." Al-Biruni's works in the field of science are vast. According to the medieval Arab traveler Yaqut, in one of the mosques in Merv, he came across a collection of al-Biruni's works comprising a list of 60 pages among various documents⁴.

The great physician, known in the East as Shaykh al-Rais and in the West as Avicenna, Abu Ali Ibn Sina holds a highly significant place in world medicine. His work The Canon of Medicine (Al-Qanun fi al-Tibb) alone was translated into Latin as early as the 12th century. Remarkably, this work was translated into Latin more than 30 times.

It is also important to note a historical fact: one of the teachers who greatly contributed to Abu Ali Ibn Sina's medical knowledge was Abu Mansur ibn Nuh al-Qamari, a native of Bukhara. During the Samanid period, he was considered the most esteemed physician. His contemporaries highly praised him, stating: "He was the great of his time and the unique figure of his era, renowned for his flawless intellect in medical science, well-versed in medical practice, and wise in the methods and branches of medicine."⁵. This indicates that even before Ibn Sina, there were skilled physicians in Central Asia. Ibn Sina is a great scholar who reached mastery in the world of science and is recognized by the entire world.

In conclusion, it can be said that a great number of accomplished scholars emerged in the Central Asian region, and they have left an indelible mark on the world's scientific heritage.

References

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⁵ A.Juvonmardiyev, «Nodir Sahifalar», «Fan», T – 1977, 11-bet.