



## IDEAS OF EASTERN THINKERS ON SCIENCE AND ENLIGHTENMENT AND THEIR ANALYSIS

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### ANNOTATION

The article reflects the ideas of Eastern thinkers about science and enlightenment. It is thought of as the great scholars who contributed to the Eastern Renaissance. Many great scholars such as Abu Rayhan al-Biruni, Ibn Sina, Mahmud Zamahshari, and Abu Nasr al-Farabi have been given scientific opinions.

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Thanks to independence, conditions have been created for the restoration and development of the national values of all peoples living in the land of ancient Turkestan. Great work has been done to approach its history on the basis of a new way of thinking, to restore the glory of the geniuses of pedagogical thinking of the past, to apply their ideas to the life of the people. At the same time, it is impossible to imagine the national formation and development of the Uzbek and other fraternal peoples without a modern education system. Without knowing how the theory and practice of educating the younger generation has evolved, the problem of educating young people as full-fledged human beings cannot be solved scientifically. This is a scientific-theoretical, philosophical-educational fact proved by our ancestors.

The history of the Middle East shows that the unprecedented rise in culture and science, education, medicine, literature, art and architecture, the emergence of scientific schools, the emergence and growth of a new generation of talented people - all this in the first place. It is directly related to the rapid growth of the economy, agriculture and urban development, the high level of development of handicrafts and trade, the construction of roads, the opening of new caravan routes and, above all, the provision of relative stability. i.e. The peculiarity of the Eastern Renaissance was manifested, first of all, in the development of the exact and natural sciences, such as mathematics, astronomy, physics, chemistry, geodesy, pharmacology, medicine, as well as history, philosophy and literature.

It is difficult to fully appreciate the unparalleled discoveries made by the scientific genius of the great encyclopedic scholar Abu Rayhan Beruni. Although only 31 of Beruni's more than 150 scholarly works have survived, these incomplete specimens of scholarly manuscripts are a testament to his multifaceted legacy.

Beruni was one of the first in world science to propose unique ideas for the theory of the seas and the creation of a spherical globe of the Earth. Calculated the radius of the earth, explained the state of vacuum, i.e. space. 500 years before Columbus's voyage, he advanced the view that there was a continent beyond the Pacific and Atlantic Oceans, developed a classification of minerals and a theory of their formation, and laid the foundations for the science of geodesy. It is no coincidence that the 11th century is called the "Beruni Age" by historians of natural sciences around the world.

The life and work of Abu Ali ibn Sina, who was awarded the title of "the most famous philosopher and encyclopedic scholar of the Islamic world and one of the greatest thinkers of mankind," evokes a sense of special pride and respect in generations. He started his scientific research at the age of 16 and created more than 450 works during his lifetime. Most of them are devoted primarily to medicine and philosophy, as well as logic, chemistry, physics, astronomy, mathematics, music, literature, and linguistics. Generations of Leonardo da Vinci, Michelangelo, Francis Bacon, and many other scholars were amazed to read his works.

We always proudly acknowledge that Ibn Sina, with his invaluable fundamental work, *The Laws of Medicine*, the most famous in the history of medicine, foreshadowed the main directions of the development of medical science for the next few hundred years, a practice that has not lost its relevance today. It laid the foundation for the most important methods in the fields of medicine and pharmacology. It is no coincidence that this book was one of the first books published in Europe in the fifteenth century, and medical science has been taught on the basis of this work in the leading universities of Europe for almost 500 years.

The writings of Ibn Sina and Beruni on Aristotle's *Book of the Universe*, which have come down to us, are a classic example of how our great scholars rose to a high level of scientific communication, deep understanding and development of ancient philosophical views.

The merits of Beruni, Ibn Sina and other great scholars and thinkers who created in Khorezm in the X-XI centuries are not limited to the scope of their scientific works and works, but also cover such an important issue as the formation of the Khorezm Mamun Academy, a scientific school that left a deep mark on human intellectual history.

The tenth-century encyclopedic scholar Abu Nasr al-Farabi was called "Aristotle of the East" by his contemporaries because of his universal knowledge. He enriched many sciences with scientific discoveries, developed the philosophical views of scientists from different countries, and wrote more than 160 works. The most famous of them are "Words about the essence", "Book on the origin of sciences", "The essence of thinking" and others. The main part of Farabi's works has been translated into many European and Eastern languages and is still the subject of in-depth research.

When we talk about a whole generation of scholars and thinkers of the Middle East, we are talking about the so-called era of Amir Temur and the Temurids, Mirzo Ulugbek and many of his comrades and students, such as Qazizada Rumi, Ali Kushchi, whose name shines like a bright star in the sky of knowledge and enlightenment. We cannot pass without remembering about.

We all know that Mirzo Ulugbek, the grandson of Amir Temur, who ruled in Samarkand for 40 years, became famous as a great scientist in the field of astronomy, and his name is rightly mentioned among Copernicus, Jordan Bruno, Galileo and other great scientists.

Mirzo Ulugbek's 15th-century astronomical chart describes the position and location of 1,018 stars, making it the first new astronomical catalog created in the 16th century.

Al-Kashi, a colleague of Mirzo Ulugbek, was the first to introduce decimal fractions into scientific use, and developed methods for the gradual convergence of the roots of free degrees and their finding.

You can get acquainted with the Mirzo Ulugbek Observatory in more detail during a visit to the museum named after the great scientist, located on one of the highest hills surrounding Samarkand.

In the creative heritage of Sherazi, Jami, Alisher Navoi, Babur and many other great philosophers, poets and enlighteners, there is a huge, inexhaustible treasure trove of wisdom and humanistic understanding of the

human world Abu Abdullah Rudaki, Firdausi, Nizami Ganjavi, Saadi, Hafiz. This heritage is truly a priceless treasure of world importance.

The author of the first dictionary of Turkic languages in the history of the world, Devoni lug'atit-turk, Mahmud Kashgari, in his work, also quoted the real golden particles of vocabulary - Turkish proverbs and poems. Kashgari is the first researcher of the language, culture, ethnography and folklore of the Turkic peoples.

Recognized as the founder of Arabic grammar, the great linguist, literary critic, geographer and philosopher Mahmoud Zamakhshari became famous during his lifetime. He was also the founder of the first multilingual dictionary in history - the Arabic-Persian-Turkish dictionary.

Today, almost a thousand years later, we marvel at the genius, research and encyclopedic knowledge of Oriental scholars and thinkers who lived and worked in the Middle Ages and made invaluable contributions to the development of world civilization. Unfortunately, as a result of various tragedies, wars and natural disasters, only a part of the great legacy they have left has come down to us. It is hard to imagine today that in certain periods of history dominated by darkness and ignorance, the lives of many of the scholars have been tragically persecuted and ended tragically. However, in spite of all the difficulties and hardships, the scholars and thinkers remained faithful to their duty to the development of science, the ideas of humanism and enlightenment. We have every reason to say that the life of these great men in the field of science, the achievements they have made and that amaze all enlightened humanity today, is without a doubt an example of true spiritual courage, and we bow before such courage.

Today it can be said without exaggeration, and I would like to emphasize that the deep layers of the scientific heritage, consisting of the great discoveries of the geniuses of the Middle East, have not yet been fully explored and await their researchers. After all, in Uzbekistan alone, more than 100,000 manuscripts are stored in book funds. Most of them are included in the UNESCO World Heritage List. Manuscripts of medieval Eastern scholars and thinkers make up the "gold fund" of libraries in Europe and Asia, the United Kingdom, Germany, Spain, Russia, France, Egypt, India, Iran and many other countries. What do these facts indicate? This, first of all, once again confirms that the unparalleled works and scientific heritage of the great Eastern scholars and thinkers who lived and worked in the Middle Ages are the spiritual property not only of one nation or people, but of all mankind. It is a priceless treasure, a source of wisdom and knowledge for new and new generations, and a great material for new discoveries, if need be. It is our duty with you, our duty with you, to use this rich heritage, which has come down to our time, wisely and effectively in the way of the progress of all mankind. The role of dedicated scientists in this regard deserves special attention, and it is because of their work that we are rediscovering the invaluable scientific heritage of the past.

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