



Beruni on the Natural Foundations of Society and Attitude to Astrology

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Abstract

This article presents the philosophical and methodological analysis of the work of Abu Rayhan Beruniy "Tafkhim". The article also provides an overview of considerations about Beruniy's attitude to astrology.

Keywords:

Beruni, society, man, social knowledge

Introduction

The scientist-encyclopedist Abu Raykhan Beruniy left a great scientific heritage, and his works were translated into many languages of the world. In connection with the wide celebration of the 1000th anniversary of the scientist in 1973, much attention was paid to the translation of his rich scientific heritage, and five volumes of his selected works were published. In 2006, through the efforts of the researcher and propagandist of the history of our science, scientist-worker A. Akhmedov, his work "Tafkhim" was published as the VI-volume of selected works by Beruniy

Materials And Methods

The translation of this work in the study of our spiritual heritage is an important source of progress in our science. A high-quality translation, along with the fact that, at the very beginning, the history of writing the work is told, the structure of the presentation is described, detailed information about existing manuscripts and, of course, thoughts about the theoretical and practical significance of the

work are given, each chapter notes the features of the concept presented in this chapter, given full comments. This style of presenting the work leaves no questions for students.

Results And Discussion

The full Arabic title of the work sounds like "Kitob at tafkhim li avoil sino'a at-tanjim", that is, "The book of explaining the foundations of astrological art", and in the West the book is called "Astrology". Despite the fact that the work is called "The Art of Astrology", concepts related to the natural and exact sciences occupy a large place in it. If we consider that the work consists of 8 chapters, six of them are devoted to such subjects as mathematics, astronomy, geography, chronology, and two chapters are devoted to astrology. [Abu Rayhon Beruni]

Beruniy - being a great scientist and encyclopedist who made a great contribution to the development of the natural sciences, the question naturally arises why he wrote a work related to astrology.

It is well known that in the Middle Ages astrologers played an important role in the palaces of the feudal lords, and the need of the feudal lords for predictions by the stars was great. And at the same time, favorable conditions were created for astronomical research by creating observatories under the pretext of their necessity for astrology. I. Kepler (1571-1630) comments on this as follows: "Astrology is the illegitimate daughter of astronomy, and the daughter must feed her mother in order to save her from death". [Sokolov. V.V. 1996, 129].

Despite the fact that Beruniy called his work astrological art, the focus of the work is on geometry, arithmetic, geography and astronomy. The book served as an important guide for architects, engineers and scientists in their practical and theoretical fields of activity. In particular, the book describes in detail the measurement of time and types of clocks, mathematical geography, the determination of coordinates by the latitude and longitude of the city, the astrolabe and its structure, its manufacture, determination of height using the astrolabe, the use of the astrolabe in geometry, the depths of the well, issues such as the solution of issues such as determining the height of the minaret and walls that cannot be climbed are given in detail and with diagrams. In the preface of his work, Beruniy says: "I started with geometry, then moved on to calculations and numbers, then to the universe, then to the stars, since a person who knows these four sciences deserves to be called an astrologer" [Abu Rayhon Beruniy, 2006, 16]. Khandasa is the modern science of geometry and Beruniy describes it as follows. "This is the doctrine of quantities and their quantities in relation to each other, the study of forms and properties that exist in bodies. It transforms science from particular to general, and also transfers the science of astronomy from the realm of considerations and forecasts to the realm of truth." [Abu Raykhan Beruniy, 2006, 17] He emphasizes that here the degree of accuracy of science is based on mathematical calculations. The principle of mathematics in modern epistemology proves the importance of this idea.

Mathematics in the section of geography explains the location of the Earth's equator, it is proved that here it is always daytime equal to nighttime. Persians, Greeks, Romans, describing the division of the Earth into climates and the map, used a religious approach, on this occasion he sets out his concept, with the help of schematic forms he explained the reasons for the delays of the Moon and the Sun.

The chronology section of this work tells about dates, months, yearbooks, calendars, holidays of different peoples, in particular the holidays of Christians, Persians, Romans and Muslim holidays. It also provides valuable ethnographic information about the famous days of Sogd and Khorezm.

Beruni is a great scientist and encyclopedist, the author of numerous magnificent books. The results and achievements of Beruni in all areas remained unsurpassed. The great scientist was born on September 4, 973 in Khorezm in the city of Kat (now the city of Karakalpakstan). Beruni left handicraft circles, but despite this he received a broad mathematical and philosophical education. Beruni's teacher in the ancient capital of Khorezmshahs, Kate, was the outstanding mathematician and astronomer Ibn Iraq.

Beruni mastered almost all the sciences of his time: history, philology, geography, mathematics, mineralogy, pharmacology and others. Beruni wrote his scientific works in Persian and Arabic. Beruni put Arabic above Persian when he wrote: "reproach in Arabic is dearer to me than praise in Persian ... this dialect is suitable only for Khosroev's stories and night tales"

Al-Beruniy is the author of more than 150 works. About 30 of them have survived to this day. Most of his works are about mathematics and astronomy.

Our great ancestor believed that everything in nature exists and changes according to the laws of nature itself, and these laws can be comprehended only with the help of science. His works devoted to mathematics and astronomy were of great practical importance for the economic life of Khorezm,

including for irrigated agriculture and trade exchange.

Al-Beruni became very interested in the works of Aristotle and later, having met Avicenna, discussed the significance of these studies with him, and in their correspondence, scientists discussed natural science. As an encyclopedic scientist, Al-Biruni, in his very first works, systematized various methods and variants of calendar calculus. Later, he described and gave characteristics to more than fifty minerals and metals, which later fell into the Mendeleev table.

In 997, Ibn Sina (Avicenna) moved to Khorezm, where he corresponded with Beruni on various issues. It is worth noting here that the basis of the two works of Ibn Sino in medicine was Beruni. These works are The Canon of Medicine (Al-Kanun fit-t-tibb) and The Book of Healing (Kitab ash-shifa), which made Ibn Sina famous. In Urgench, Ibn Sina and Beruni worked at the Mamun Academy.

Along with other sciences, Beruni made a great contribution to the development of medicine. His greatest work in medicine is the treatise "Pharmacognosy" ("Saidana"), which to this day is of great importance in science. This work is currently used by scientists to decipher ancient medical treatises. The paper provides a detailed description of the properties and structure of 880 herbal medicines that were used and recommended by Beruni for various diseases. Doctors have the greatest right to respect for their efforts in improving their science, for the fact that they not only raise it on the wings of theory, but also apply it in practice," the scientist wrote.

Al-Beruni was "one of the greatest Islamic scholars, and admittedly one of the greatest scholars of all time." Al-Beruni was regarded in the West as "one of the greatest scientific geniuses throughout history" Beruni was "one of the greatest Islamic scholars and admittedly one of the greatest scholars of all time". Al-Beruni was considered in the West "one of the greatest scientific geniuses throughout history."

The contemporaries of the researcher were always struck by his desire for constant self-education and expansion of his knowledge

in all areas, and not in one particular one. Until the last days of his life, Al-Beruni retained clarity of mind, conducted conversations with his students. It is said that even when the 75-year-old scientist felt the end was near, he asked one of his friends about the system of counting dishonest profits that he was developing. And when a friend said that this is not what you need to think about at such moments, the dying scientist replied that he did not want to die an ignoramus. The official date of death is December 9, 1048.

To date, 31 works of al-Beruni have been translated into German, English, Russian and Uzbek, 24 works have been studied, 3 works have been published in the Arabic original.

The American historian George Sarton said the following about this outstanding encyclopedic scientist: "The history of astronomy and mathematics, astrology and geography, anthropology and ethnography, archeology and philosophy, botany and mineralogy would be orphaned without his great name."

We also want to note that we always remember our great scientists, many memorable places were built in Uzbekistan in honor of the great Beruni, such as:

- Al-Biruni's hometown was named Beruni in his honor in 1957.
- Institute of Oriental Studies named after Abu Raykhan Beruni in Tashkent.
- Metro station named after Beruni in Tashkent.
- Monuments in Khorezm and Tashkent.
- The name of Beruni was borne by the Tashkent Polytechnic Institute.

To date, 31 works of al-Beruni have been translated into German, English, Russian and Uzbek, 24 works have been studied, 3 works have been published in the Arabic original. The Tashkent State Technical University, the Center for Oriental Manuscripts at the Tashkent State Institute of Oriental Studies, districts, streets, etc. are named after him.

Along with this, the name of the greatest genius is immortalized in the name of a crater on the moon. One of the minor planets of the

solar system, discovered in 1986 and registered at the Harvard Center under the number No. 9936, is named after him.

Thus, the immortal scientific works of al-Beruni are of inestimable importance in the development of world scientific thought. His greatness, as one of the encyclopedic scientists of the Middle Ages, is reflected in the immeasurable heritage, his contribution to the development of many sciences not only of that era, but also for many millennia to come.

Conclusion

A. Akhmedov did not limit himself only to the translation of this work, but also, as a specialist, substantiates the ideas put forward by Beruniy, pointing out their positive aspects and comparing his works with the theories of Greek scientists such as Euclid, Pasidoni, Archimedes and Pythagoras. In particular, Beruniy's theory of parallel lines differed from Euclid's theory and was an important stage in the emergence of Lobachevsky's non-Euclidean geometry, and Beruniy tried to scientifically substantiate this statement in his work. [Abu Rayhan Beruni, 2006, 10]

A. Ahmedov speaks about the scientific value of the work, "Tafkhim" is a work created on deep scientific methodological principles, which Beruniy wrote as an encyclopedia of various sciences of his time as a single logical system. We are convinced that each of our readers will draw the necessary conclusions from this unique work." [Abu Rayhan Beruni, 2006, 13] Indeed, the work

"Tafkhim" Beruniy in the natural and social-humanitarian sphere is a valuable source for all researchers of these sciences. The scientific legacy of the great thinker Abu Rayhon Beruniy will always be a rare and unique source of progress in our national spiritual development.

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