

THE GREAT HERITAGE OF AL KHOREZMI

Annotation: In this article highlights of research national history so the great heritage of Al Khorezmi.

Key words: great heritage, national spirituality, Al-Khorezmi, history.

The birthday of Abu Abdallah al-Khorezmi is not determined yet. He spent his youth in the cities of Khorezm: in Khiva, Zamahshar and Kat, where he was born, lived, studied and also succeeded in many fields of knowledge. The scientist had lived in Khorasan for some time. He achieved the best results and knowledge when he served as katib – the kind of chancellerian (minister’s adviser) to Abul Hasan Ubaydallah ibn Ahmad al-Utbi (977-982). More likely, Al-Khorezmi often used to be in Bukhara for work. He visited emir’s famous library, where he spoke to many great scientists of that time, including, to his junior contemporary, Ibn Sino. He died in 997. Since a new approach has been developed to the development of education in Uzbekistan, there are many changes in this area today. The qualitative development of education, the training of all-round mature specialists capable of responding to world students, the period itself is more than ever before. Location as noted by Ochildiyev: "The educational reforms carried out on a large scale are subject to the introduction of advanced technologies of education into the process of learning and teaching. In turn, this requires the use and development of pedagogical practice, taking into account the technological approach to the field of education, the acquisition of pedagogical technology and the national, spiritual and cultural characteristics of Uzbekistan, its historical and advanced traditions"[1].

In fact, changing the educational process in a modern way with a productive use of the opportunities created is an indispensable requirement of steam. Therefore, the role of education plays a special role in the worthy position of our state from the world community. The first president of Uzbekistan commented: "The prospect of our country depends on how our younger generation is brought up, what spiritual qualities it possesses, how active our children are in relation to life, what higher goals it serves " [2]. It is worth noting that the role of national and spiritual heritage created by our ancestors in the upbringing of a mature and harmonious generation in all respects is incomparable. In particular, Khorezm is a land that has supplied many scientists to the world of Science, and it is about this that P.Tolstov writes: "the role of ancient Khorezm in the history of Oriental Science is very important. We know little about the pre-Islamic antiquity of Khorezm and the afrigian period. But we can say with a thorough analysis of cultural and material monuments that Exact Sciences in Khorezm – geometry, tirigonometry, astronomy, topography, chemistry, mineralogy and Natural Sciences were highly developed at that time... After Khorezm was later included in the Arab Caliphate, Khorezm scientists soon gained fame and took the most advanced place among the creators of Science, which was called "Arab science"[4]. In itself, it is known that the most important part of the spiritual heritage was created in the Khorezm region, and the role of Muhammad al-Khwarizmi in this heritage plays a special role. His invaluable works, which he created in such fields as mathematics, geometry, astronomy, history, geography, are of particular importance in the upbringing of a harmonious generation at the same time.

In particular, the work "Al-Kitab al-Mukhtasar Fi hesab Al-Jabr and Al-Muqabala", created by the scientist in the development of mathematics, serves as a program-action. As noted by the president of the Republic of Uzbekistan Shavkat Mirziyoyev, "speaking about the great scientists who have grown out of the Khorezm land, we will mention the name Muhammad Khorezmi, who has

made an invaluable contribution to the formation of mathematics, trigonometry and geography subjects among the first. This is the first time that our compatriot justified and practiced the decimal position calculation system, the zero sign and the coordinates of the poles”[3]. Also, the largest astronomical work of the scientist has its attention. The scientist wrote this work around 830 year. "Zij" of Khorezmi consists of 37 chapters, 116 tables.

The previous five chapters of the work are devoted to chronology, and the rules for the transfer of dates from the "flood", "Alexander", "journey" and Christian eras to the Hijri era are cited. Khorezmi described the movement of planets based on the geomarcase system of Ptolemy, skillfully using ancient and first medieval Indian Astronomical Data, Iranian and Greek data. Chapter 23 is devoted to trigonometry, in which the Khorezmian introduces the concepts of "flat" and "mirrored sine", and this brings the tables of functions. 25-27 chapters are devoted to mathematical geography. Here, the rules for determining the length and width of geographic areas are cited, and the variation of these coordinates is indicated by the dependence of the sun on the annual, Night-Time motion with changes in the ecliptic, Equatorial coordinates.

In Chapter 28, Khorezmi again addresses trigonometric issues and introduces the concepts of Tangent, kotangens and brings them Moe tables. In Chapter 29, the speed of planetary motion is determined. Chapter 30 presents the measurement of the invisible forces of the sun and the Moon. It turns out that in each chapter of the work a separate problem is revealed, discussed and solved. Therefore, this work of Muhammad al-Khwarizmi was given a high assessment in its time. In particular, Fargani, Al-Hashemi and others from the contemporaries of Khorezmi were highly appreciated. Abu Rayhon Beruni devoted his three works to the interpretation of this "zij". It is our sacred duty of young people to read and study the works of Muhammad al-Khwarizmi, to receive spiritual nourishment from them. In the cultural heritage, the power that is close to the people's psyche, visibly perceived by the inner instinctive feeling,

is hidden. This can be felt only by awake contemplation, sharp perception. Awareness of cultural heritage encourages the human worldview, to think, think and draw conclusions about it.

Historical past will be absorbed into material and spiritual culture. Such cultural values are real facts for historians. Therefore, historical past as a subject of research should be a single norm in historical knowledge, since historical event must necessarily be impartial in assessing processes. Specifically: “self-awareness begins with the knowledge of history. And without knowing the true history, one cannot understand oneself”. The famous encyclopedic scientist made a lot of contribution to many famous sciences of his time. Particularly in:

Philosophy: he was one of the first scientists of medieval times who made a great contribution to elaboration of problem of classification of sciences which is considered to be an ethalon of science development. He also enriched this field of science theoretically;

History: he expounded new information on the history of Old Yemen, Ancient Greece and the age of ignorance (jakhiliya) on Arabian Peninsula;

Literature: he expounded and enriched various genres;

Philology: he gave short, capacious and precise explanations to many terms of all sciences of his time in a very simple and accessible way.

Nowadays the only work by Al-Khorezmi, which had been published in Arabic in complete edition on the basis of the manuscript in 1163 by a Dutch scholar van Floten, attracted a great attention of many famous scientists of the world. It was studied as one of few sources on the history of development of science in the Middle Ages by German, English, American, Arabian, Russian, Uzbek, Iranian, Indian, Malaysian, Turkish and French scientists.

The work of Al-Khorezmi as one of the biggest works in medieval times, was recognized by many scientists both West and East. For example, the great German scientist Brokelman K. recognizes the work as the encyclopedia which can get a lot of information in many scientific fields and short answers to all of

this. Another famous German scientist Videman E. recognizes Al-Khorezmi as the maker-up of the first muslim encyclopedia. The explorer of the ancient alchemy, medicine and other disciplines German scientist Ruska U. points to “The Keys of Science” as the source for alchemestry in the X century. The famous Russian scientist Krachkovskiy I. picks out the work of Al-Khorezmi as a source which is consisted of the important information in geography literature. The famous American historian Sarton J. considers the work of Al-Khoezmi as the main source for studying science and culture in Medieval times.

In conclusion, it should be noted that the question of attitude to history and understanding of history has risen to the level of Public Policy, and to restore a person and society capable of all reforms through historical thought and historical knowledge, it is also necessary to philosophically observe history. It is necessary to rely on the role of new-minded people in our history, especially potential specialists, and on these issues.

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