

## CONTRIBUTIONS OF OUR GREAT COMPATRIOTS TO THE SCIENCE OF DRAWING AND ITS UNIQUENESS

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### ABSTRACT

While we are fascinated by the ancient buildings, unique pictorial and memorial works created in our country, feelings of pride arise in our hearts from the art and skills of the memory, painters and sculptors who created such a high art.

Our head of state has repeatedly emphasized in his works, speeches and speeches that a people who do not know our values, spirituality, and history will not have a future. With this idea and initiative, our national spiritual, historical, cultural and Islamic values began to be organized. As a result, the development of drawing science today is directly related to the sources found as a result of the organization of these historical, cultural, and national values. Our history goes back to many years, the greatness of our nation, the creative potential of our ancestors, historical, scientific and cultural values continue to amaze not only their descendants, but the people of the whole world.

Today, the history of the development of drawing science and its uniqueness in Uzbekistan dates back to the XIII-XIX centuries. In 762, Aniqrogi established Baytul Hikmat (House of Knowledge) in Baghdad, the capital of the Hanifate of Muslim states. In this dargah, as well as in all sciences, major experts in the fields of art and culture are summoned from different countries and distributed to all other centers of knowledge. It is on the basis of this process that today's science of drawing developed as well as art, culture and education in all countries.

It is worth noting that great thinkers of Eastern scientists played an incomparable role in the development of drawing science. While we are fascinated by the ancient buildings, unique pictorial and memorial works created in our country, feelings of pride arise in our hearts from the art and skills of the memory, painters and sculptors who created such a high art.

Our great compatriot Muhammad Musa al-Khorazmi laid the foundation for the development of many sciences. During his lifetime, Khorezm made great contributions to algebra, astronomy, geography, geometry and other sciences. Khorezmi's spatial ideas in the field of geometry differed from other scientists with his views in algebraic, trigonometric and geographical fields. According to historical sources, Khorezmi chose the meridian from the city of Arin (now Ujain in India) as the starting meridian of the Indian pineapple. Christopher Columbus, who followed in the footsteps of the great scientist Musa al-Khwarazmi, wrote in his notes on the margin of his copy, Arin Goya created a spatial idea that the earth is pear-shaped and that there should be a place similar to Arin on the diametrically opposite side of the earth.

He received the name Muallimus-sani. Abu Nasr Farabi is another scientist who has successfully conducted excellent research and promotion work in various fields. His views on geometric methods are noteworthy. He emphasized that the method of estimation in determining aspects such as quantity and quality can lead to huge errors and as a result, great tragedies can occur.

Musa al-Khwarazmi and Abu Nasr al-Farabi's views and thoughtful opinions show that in order to develop spatial ideas, it is necessary to bring the drawing and its appearance before our eyes.

After all, oriental thinkers were the first to scientifically justify drawing tools, especially the use of a ruler and circle to perform various graphic works. For example, Abu Nasr Farabi (870-950) in his 10-chapter book on geometric constructions

With this, Farabi proves the uniqueness of making each shape based on drawings based on scientific evidence.

Abu Ishaq Ibrahim ibn Sinan ibn Qura (980-946) in his book on making three legal sections, explained 7 ways to make an ellipse. Showed how to draw parabola and hyperbola using a ruler and a circle.

The great thinker Abu Raikhan Beruni, in his book Masud's law, dwells on the issues of measuring the distances between places that are not visible from one side of the globe and depicting the results on special maps. In this he says that a special type can be used, formed by 90 circles of different radii around a chosen center and 300 rays radiating from this center. Another famous work "Kitab al-takhfim" by Beruni Uzi mentions Surat ul-arz, a map of the surface of the globe.

In the section on geometry in the book Beruniy Osha, he says that it is possible to make five types of regular kopecks inside a sphere, and they were given by Plato, and he translates their names into Arabic as follows:

Also, the kolam of Beruni Names is lit in space in three directions, the first along the length, the second along the width, and the third along the depth or height," he wrote. The abstract drawing of the body (not as big as it seems to the eye), but the actual drawing (actual size) is determined by these three lines. By means of the lines of these three sides, the body has six sides, and with that many sides it is limited in space. If we imagine that an animal is standing in the center of these six sides (parallelepiped), and its face is facing one of these sides, then these sides serve as its front, back, left, top and bottom (emphasis is ours) sides.

From the ideas of the great thinkers of the East about the science of drawing, it is clear from the ideas of the scientific theoretical foundations of knowledge, that this science has a special importance in the development and uniqueness of the science of the world.

After all, one of the scientists of the European countries did not say without reason that the true science, knowledge, culture, and manners came from the eastern countries. Because, as we mentioned, it cannot be exaggerated to say that the period in East and Central Asia was the reason for the development of any science, including the science of drawing in its own way. Therefore, the importance of developing the science of drawing in Uzbekistan and improving it today is important. R. Khorunov, the first pedagogue of drawing geometry in Uzbekistan, defends his Candidate's thesis on drawing geometry on the topic "Some issues of creating clear images in parallel projection" and worked as the head of the department at the Tashkent Institute of Railway Transport, and later the scientific school established a postgraduate course and trained several candidates of science. and led, increased the scientific-methodical potential of pedagogues and created educational literature. In 1961, the textbook "Drawing geometry course" was published in Uzbek by R. Khorunov. With the creation of this textbook, an Uzbek language version of the system of drawing geometry science terms was created. In

1964, the second edition of the textbook was published. In this, the author included all the chapters specified in the model program of drawing geometry, and prepared the book for construction and architecture specialists of the Higher Technical Educational Institutions. Scientific terms, textbooks and literary language were further improved from a methodological point of view. In 1961, 1966, 1971, under the leadership of R. Khorunov, All-Union conferences on "Theoretical and practical issues of drawing geometry and engineering graphics" were canceled in Tashkent. Uzbek scientists and young pedagogues also actively participated in the conferences. The materials of the conferences were published in the form of scientific summaries and made a significant contribution to the development of science in the republic. In 1981, he was awarded the title of "Honored Scientist" in the Republic of Uzbekistan for creating textbooks and training manuals in the state language and training highly qualified scientific and pedagogical staff and a large number of engineers.

Yusuf Kyrgyzboev worked actively as the head of the department at the Tashkent Institute of Textile and Light Industry, and for the first time in 1958 he published the textbook "Drawing geometry" in Uzbek language for mechanics majors. It differs from other literature due to its methodological aspects, given some drawings in the textbook. Yu. In Kyrgyzboev's book, a system of terms used for the first time in the Uzbek language was created for descriptive methods. He was remembered as the founder of the drawing geometry and drawing department of Tashkent State Pedagogical Institute named after Nizami. This department was trained by apprentice teachers who are worthy of teaching staff. In 1961, he was awarded Yu. Kyrgyzboev was awarded the title of associate professor.

In 1987, R. Khorunov, A. Akbarov, and in 1976, Yu. Kirgizboev published the textbook "Sets of problems from drawing geometry" and the set of terms in the Uzbek language was expanded and their methodological quality improved.

In 1974, Yu. Kirgizboev, E. Sobitov, L. Khakimov, I. Rakhmonov authored the textbook "Mechanical drawing course" for the first time in Uzbek language for higher technical schools. Along with theoretical and practical information, a set of technical terms used in drawing was created in the textbook.

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