



## **A BRIEF HISTORY OF THE DEVELOPMENT AND TEACHING OF DRAWING SCIENCE IN UZBEKISTAN**

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<b>Article history:</b>	<b>Abstract:</b>
<b>Received:</b> 2 <sup>nd</sup> July 2021	Drawing is a complex process, with patience and perseverance from the artist requires working with. The quality of the drawing depends on the intuition of the artist. The hand is very important in drawing, clean and beautiful drawings. Lines of the same type should be drawn in the same thickness and evenly. If a person has a well-developed sense of hand, he can skillfully move the pen on a piece of paper. This article is about a brief history of the development and teaching of drawing in Uzbekistan.
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The science of descriptive geometry and drawing is as human as any other science arising as a result of labor activity. Some information about projection in the works of geometry and astronomy of our scholars Muhammad al-Khwarizmi, Abu Nasr al-Farabi, Ahmad al-Fargani, Abu Rayhan Beruni, Abu Ali ibn Sino and others, who lived and worked in Central Asia in the IX-XI centuries. It is known that the first higher education institution in Central Asia and Kazakhstan, established in 1918, was the Turkestan People's University (now the National University of Uzbekistan). Later, in 1920, the university was renamed Turkestan State University, and several new specialties were established in the educational process, including engineering and hydraulic engineering, construction. As a result students of the Faculty of Engineering began to be taught fundamental natural sciences and general engineering. It can be considered that since then, the disciplines of "Drawing Geometry" and "Drawing" have been taught in the universities of the country in the field of engineering and construction. Initially, graphic geometry and drawing were taught together, and the learning process focused on drawing and reading drawings. In 1928, the Central Asian Cotton Irrigation and Polytechnic Institute was established on the basis of the Engineering and Land Reclamation Faculty of the Turkestan State University. Also in 1930-1934, a number of higher technical schools were separated from the University, the departments of "Descriptive Geometry and Drawing" were established in these institutes, and along with the general engineering disciplines, the graphic sciences were fully taught. In the early years, a great deal of attention was paid to the teaching of science, its teaching methods, the creation of collections of drawings by students, and the improvement of the pedagogical skills of young teachers. From 1926 to 1946, Kolotov, Gromov, and Gordon, the famous Soviet geometers of the former Soviet era, taught drawing geometry and drawing at Tashkent Higher Technical Schools, as well as conducting some fundamental scientific work in Tashkent. They are professors who have made a significant contribution to improving the skills of teachers, improving the scientific and methodological activities of the departments. From 1926 to 1944, Professor KoIotov lived in Uzbekistan, took an active part in the design of various structures, construction and industrial reconstruction, and taught graphic geometry and architectural design at the Central Asian Industrial Institute (now Tashkent State Technical University). In 1933, he wrote a course in Descriptive Geometry, theoretically substantiating the Auxiliary Projection method and demonstrating its convenient application in solving positional and metric problems. During these years he also created several scientific works on the creation of shadows, the creation of perspective images. In 1939, he was awarded the title of professor by the decision of the Academic Council of the Central Asian Institute of Industrial Construction by the decision of the Higher Attestation Commission of the former USSR. From 1935 to 1941 and from 1945 to 1946, Professor Gromov headed the Department of Descriptive Geometry and Drawing at the Tashkent Institute of Textile and Light Industry. During this period, he developed scientific and methodological work at the department, created the theory of extensible linear surfaces and methods of conformal substitution, and introduced new theoretical foundations for drawing geometry, curves, the formation of surfaces and their extensions.

In 1937, Gromov created textbooks in Russian, such as Projection Drawing. In 1941-1945 Gromov also worked as the head of the department of "Descriptive Geometry and Mechanical Engineering" of the Tashkent Institute of Engineers of Irrigation and Agricultural Mechanization (now the Institute of Irrigation and Land Reclamation) gave lectures on descriptive geometry. During this period he created theoretical and practical information on parts 1 and 2

of his textbook "Descriptive Geometry". In 1961, Khorunov published a textbook for mechanics in the Uzbek language "Course of Descriptive Geometry". With the creation of this textbook, an Uzbek version of the system of terms of descriptive geometry was created. In 1964, the second edition of the textbook was published. At the same time, the author included all the chapters defined in the standard program of descriptive geometry and prepared the book for construction and architecture specialists of higher technical schools. Scientific terms, textbooks and literary language have been further improved methodologically. Subsequent editions of this book were reprinted in 1974 and 1997. Associate Professor Yusuf Kirgizbaev worked actively at the Tashkent Institute of Textile and Light Industry from 1951 to 1978 as the head of the department. It differs from other literature in its stylistic features by the presentation of some drawings in the textbook. In Kirgizbaev's book, a system of terms used in the Uzbek language for the first time in descriptive methods was created. In 1950, he founded the Department of Descriptive Geometry and Drawing at the Tashkent State Pedagogical Institute named after Nizami, where he worked for several years. In providing this department with pedagogical staff, valuable students were trained by teachers. Kirgizbaev was awarded the title of associate professor in 1961 by the Higher Attestation Commission of the Union for the creation of the first textbooks in the field of descriptive geometry in the Uzbek language. His textbook, Descriptive Geometry, was published in 1972 as a textbook for mechanics. In 1976, Kirgizbaev published a textbook, Problem Sets in Descriptive Geometry. Under his leadership, the "Technical Drawing Course" was published in 1987. The set of terms of drawing in the Uzbek language has been expanded, and their methodological quality has been improved. In 1974, the textbook "Mechanical Drawing Course" was created for the first time in the Uzbek language for higher technical schools, authored by Kirgizbaev, Sobitov, Khakimov, Rakhmonov. Along with theoretical and practical information, a set of scientific terms common in drawing was created in the textbook. Since 1963, Murodov was the first teacher of the Republic to enter the graduate school of Professor Kolotov in Kiev, where he established scientific contacts with Ukrainian scientists. The current head of the Kiev School of Science, Honored Scientist of Ukraine, Doctor of Technical Sciences, Professor Mikhailenko, first came to Bukhara in 1968 to give lectures at Samarkand universities, and in subsequent years in Tashkent, Samarkand, Bukhara, Urgench, Kokand. One of the main reasons for the development of the science of "Descriptive Geometry" in Uzbekistan and neighboring republics was the repeated visits to the cities of Shymkent and Jambul and the selection of researchers and graduate students through scientific seminars. As a result, out of 26 candidates of sciences in the country, 24 defended their dissertations at this scientific school, and 4 of them became professors: Murodov, Ismatullayev, Yodgorov, Kochkarova.

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