



**MIRZO ULUGBEK: A SYMBOL OF SCIENTIFIC ACHIEVEMENT,  
ENLIGHTENMENT, AND NATIONAL PRIDE**

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**ABSTRACT**

This article examines the life of Mirzo Ulugbek, his scientific and political activities, and his substantial contribution to the development of human civilization. The author analyzes Mirzo Ulugbek's scientific achievements in the fields of astronomy and mathematics, particularly elucidating the content and significance of the work *Zij-i Sultani*. Furthermore, the article presents scholarly information on the scientific school he established in Samarkand, his observatory, and the scholars who conducted research there.

The article also comprehensively explores the role of Mirzo Ulugbek's personality in fostering national identity, preserving spiritual heritage, and guiding the younger generation toward science. Through his activities, the importance of the integration of scientific inquiry and state governance is substantiated.

**Keywords:** Mirzo Ulugbek, Timurid period, astronomy, Samarkand observatory, *Zij-i Sultani*, history of science, scientific school, enlightenment, self-awareness, historical heritage, national pride, Renaissance period

**INTRODUCTION**

In the history of Central Asia, there are outstanding figures who have made significant contributions not only to their own era but also to the development of human civilization. One such eminent figure is Mirzo Ulugbek. He is not only a representative of the Timurid period or a ruler, but also holds a distinguished place as an astronomer, mathematician, and proponent of enlightenment who left a lasting impact on the history of science.

His life and activities represent a model of devotion to knowledge, the pursuit of truth, and spiritual development. Ulugbek's legacy continues to play an important role in fostering national pride, self-awareness, and the aspiration toward science.

**EARLY LIFE AND SCIENTIFIC CONTEXT**

Mirzo Ulugbek was born in 1394 in the city of Sultaniya. He was the grandson of the great commander Amir Temur and the son of Shohruh Mirza. From an early age, he demonstrated a strong interest in science and received education under many renowned scholars.

During his time, the city of Samarkand became not only a political center but also a major center of science. Ulugbek gathered the most knowledgeable scholars of the Timurid period around him and established a genuine scientific school.

One of Mirzo Ulugbek's greatest achievements is the Samarkand observatory. This observatory was considered one of the largest and most accurate scientific centers in the world of its time.

**SCIENTIFIC CONTRIBUTIONS AND MAJOR WORKS**

Ulugbek's most renowned work is *Zij-i Sultani*. This work, regarded as his greatest and most significant contribution, consists of a collection of astronomical tables. It includes the



precise coordinates of 1,018 stars. The movements of the sun, moon, and planets were calculated, methods for calendar and time reckoning were provided, and trigonometric tables were developed with exceptionally high accuracy. Scholars such as Giyosiddin Jamshid Koshiy and Ali Qushchi also contributed to the creation of this work. The historical significance of this work lies in the fact that it served as the most accurate astronomical source in the fifteenth century, was used in Europe as a primary reference until the seventeenth century, and laid the foundation for the development of modern astronomy.

*Tarixi arba' ulus* (History of the Four Uluses). This work is written in a historical context and provides information on the states of the descendants of Genghis Khan, the political processes leading up to the Timurid period, as well as the Turkic and Mongol uluses. It constitutes an important source for the history of Central Asia, serves as one of the principal written sources for the study of the Timurid period, and is valuable for the information it provides on the history of statehood.

In addition, a number of smaller scientific works and calculations attributed to Mirzo Ulugbek exist, in which trigonometric calculations, the results of astronomical observations, and the determination of geographical coordinates are presented. At the same time, he contributed to the formation of a culture of scientific accuracy and improved computational methods. This, in turn, has served as a methodological foundation for subsequent scholars.

#### **LEGACY AND CONTEMPORARY SIGNIFICANCE**

The significance of Mirzo Ulugbek's works lies in the fact that they constitute primary sources for the study of the history and development of astronomy and represent an important stage in the formation of scientific methodology. They continue to be studied in universities and scientific research today, stimulate interest in science among young people, serve as a source of national pride, and demonstrate the scientific potential of the Uzbek people. In the context of world civilization, they served as a bridge between Eastern and Western science and influenced the Renaissance period.

Unfortunately, the life of such a great scholar ended tragically. In 1449, he became a victim of political conspiracies. However, his scientific legacy has endured. Today, the figure of Mirzo Ulugbek represents a symbol of the aspiration toward science, a manifestation of national pride, and a source of historical heritage and self-awareness for Uzbekistan.

Numerous universities, schools, and streets have been named in his honor. His legacy continues to inspire young people toward science, intellectual development, and advancement.

#### **CONCLUSION**

In conclusion, Mirzo Ulugbek was not only a great ruler of the Timurid period, but also left an enduring mark on history as an encyclopedic scholar who made a substantial contribution to the development of science. His scientific activity, particularly his research in astronomy, was far ahead of its time and was widely utilized by both European and Eastern scholars in subsequent centuries.

The Samarkand observatory and the scientific environment established there became an important scientific center not only for a particular period, but for the development of human civilization as a whole. The emergence of distinguished scholars such as Ali Qushchi in this environment further confirms Ulugbek's profound commitment to science.

Ulugbek's activities demonstrate that the role of science in societal development is of paramount importance. By integrating state governance with science, he promoted the idea of building an enlightened society.



In contemporary Uzbekistan, the legacy of Mirzo Ulugbek serves as a source of national pride. His name continues to inspire younger generations toward scientific inquiry, intellectual growth, and innovative thinking. In this context, Ulugbek remains not only a historical figure, but also an enduring source of inspiration for modern development.

The most important conclusion that can be drawn from his life and activities is that true greatness is manifested through science, enlightenment, and humanism.

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