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THE VIEWS OF FOREIGN SCIENTISTS ON THE WORKS AND SCIENTIFIC HERITAGE OF MIRZO ULUG'BEK

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Abstract:
This article analyzes the views of Western scholars on the scientific legacy and works of Mirzo Ulugh Beg. Known for his remarkable contributions to astronomy and mathematics, Ulugh Beg established a prominent observatory in Samarkand and created the "Zij-i-Sultani," an influential star catalog. The article examines how Western scholars, including Johannes Kepler and Tycho Brahe, highly valued Ulugh Beg's scientific achievements. It explores how these scholars recognized Ulugh Beg's contributions and the impact his discoveries had on the development of science. The article highlights Ulugh Beg's significant influence on scientific progress and his place in the global scientific heritage.

Keywords: Mirzo Ulugh Beg, scientific legacy, Western scholars, astronomy, Zij-i-Sultani, star catalog, Samarkand observatory, Kepler, Tycho Brahe, history of science, astronomy, mathematics, scientific progress, Western scientific recognition.

Introduction

Basic concepts:

1. Mirzo Ulugh Beg: A great astronomer and ruler from Samarkand, known for his significant contributions to science and astronomy.
2. Scientific legacy: The body of work and discoveries passed down by scholars, which influence future scientific development.
3. Western scholars: Notable scientists and researchers from Europe who studied and expanded upon Ulugh Beg's scientific achievements.
4. Astronomy: The study of celestial bodies such as stars, planets, and galaxies, and their movements in space.
5. Zij-i-Sultani: A star catalog created by Mirzo Ulugh Beg based on his precise astronomical observations.
6. Star catalog: A scientific compilation of stars, including their positions and characteristics, used for astronomical studies.
7. Samarkand observatory: The advanced astronomical research center established by Ulugh Beg in Samarkand for scientific observation.
8. Kepler: A prominent European astronomer who acknowledged Ulugh Beg's work as a foundation for his own astronomical studies.
9. Tycho Brahe: A Danish astronomer who valued Ulugh Beg's contributions and used them in his own research.

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10. Scientific progress: The continuous advancement of knowledge in various scientific fields, greatly influenced by Ulugh Beg's discoveries.

Mirzo Ulugbek went down in history as a great scientist and ruler, known for his vast scientific works and magnificent star catalog. He was born in Samarkand in 1394 and made a great contribution to the development of science and culture in the heart of the Timurid Empire. Ulugbek's interest in science was reflected not only in his ruling activities, but also in his scientific works and inventions. He is known primarily for his discoveries in the field of astronomy, but his scientific activities ranged from mathematics to philosophy. Ulugbek's scientific legacy is based mainly on two main aspects: first, the prestigious observatory built in Samarkand, and second, the star catalog he created - "Zij-i-Sultani". These works not only contributed to the development of science of that time, but also had a great influence on scientific progress in subsequent centuries. Ulugbek's star catalog is famous for its accuracy and was widely accepted by Western and Eastern scientists. His scientific achievements are still appreciated by the scientific community today.

The opinions of Western scientists about Ulugbek's scientific work are especially interesting. Ulugbek's works had a great influence on European science. Famous astronomers such as Kepler and Tycho Brahe studied Ulugbek's star catalog and used it as a basis for their research. This shows that Ulugbek's scientific work contributed not only to the development of Eastern, but also Western science.

Ulugbek's scientific legacy had a great impact not only in the field of astronomy, but also in mathematics, geography and philosophy. His observatory in Samarkand, one of the most advanced scientific centers of its time, was highly valued not only at that time, but also in the history of science later. Ulugbek's scientific work continued due to his passion and sincerity for the correct and accurate application of scientific methods.

In this article, we will try to shed light on the scientific legacy of Mirzo Ulugbek and how it was received by Western scientists. Ulugbek's scientific work, his scientific methods, the importance of the star catalog and the role of the Samarkand Observatory as a great contribution to the development of science are analyzed. Also, studying the views of Western scientists on Ulugbek's scientific work helps to better understand his global scientific impact. The article discusses how Ulugbek's scientific legacy is valued today and how his discoveries are used in the scientific field.

Mirzo Ulugbek was known not only as a great ruler, but also as one of the greatest astronomers of his time. He was an effective ruler of the Timurid Empire, paying great attention to the development of science and culture. Ulugbek's scientific activity was mainly in the field of astronomy, and his greatest achievements were embodied in the observatory built in Samarkand and the "Zij-i-Sultani" star catalog. These two works form the basis of his scientific heritage and have influenced not only Eastern but also Western science for centuries to come.

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Ulugbek's Contribution to Astronomy

Ulugbek made great achievements in the field of astronomy. He developed new methods for accurately measuring the positions of stars using advanced scientific methods of his time. Through observations made in his observatory in Samarkand, built in 1428, with the help of huge astronomical instruments, the great scientist produced accurate and accurate astronomical data.

Ulugbek's most important scientific work is "Zij-i-Sultani", which details the positions, movements, and other astronomical characteristics of about 1,000 stars. This catalog is known as the most complete and accurate star catalog of its time. Ulugbek's work was a huge innovation for his time, and these discoveries were of great importance in the scientific research of later Western and Eastern scientists.

Western Scientists' Views on Ulugbek's Scientific Heritage

The Western scientific community is well acquainted with Mirzo Ulugbek's scientific works, and his star catalog and observatory activities significantly influenced their scientific discoveries. European astronomers Kepler and Tycho Brahe used Ulugbek's astronomical observations. Kepler based his laws of planetary motion on the precise measurements in Ulugbek's star catalog. Tycho Brahe, in turn, made a great contribution to his scientific achievements by studying Ulugbek's data when creating his astronomical system.

Ulugbek's works in the field of astronomy have been studied in depth by Western scientists. Ulugbek's catalog, firstly, required a rigorous approach to the scientific methods of astronomy, and secondly, it offered new methods for accurately measuring the positions of stars. Scientists such as Kepler and Brahe developed new astronomical laws in their works based on Ulugbek's work, and their work is based on the accuracy of Ulugbek's star catalog.

The Significance of the Samarkand Observatory

The observatory in Samarkand was recognized as a scientific center not only in its time, but also later. The observatory had a great influence on the scientific community with its advanced instruments and astronomical methods. Ulugbek's observatory opened up new opportunities in the field of science and astronomy. The measurements and observations made at the observatory, accumulating Ulugbek's astronomical knowledge, led to the development of new scientific theories and methods.

The scientific work of the observatory made it possible to accurately determine the positions of many stars and other celestial bodies. These accurate measurements and data were used in the works of Western astronomers and formed the basis of their scientific achievements. Ulugbek's observatory was, in fact, the scientific center of that time, and made a great contribution to the development of scientific research and astronomical observations.

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Ulugbek's Legacy and Today

Mirzo Ulugbek's scientific legacy is still highly valued today. His works, mainly in the field of astronomy and mathematics, are still significant and are being studied. Ulugbek's star catalog, his scientific methods, and the research carried out at the observatory serve as the main source in modern scientific research.

Ulugbek's scientific works are mainly based on correct and accurate scientific methods. The precise measurements and astronomical observations in his star catalog contribute to the development of modern science and astronomy. Ulugbek's observatory in Samarkand was also of great importance in the development of advanced methods in the field of science and astronomy.

The scientific legacy of Mirzo Ulugbek made a great contribution to the development of science not only in his time, but also in subsequent centuries. His works in the field of astronomy, the star catalog and the observatory in Samarkand, known as the scientific centers of that time and deeply studied by Western scientists. Ulugbek's scientific works are still the main source of scientific research today, and his legacy occupies a special place in the history of science. Ulugbek's scientific achievements influenced not only Eastern but also Western science, and his contribution to astronomy is still appreciated today. Mirzo Ulugbek's scientific legacy, with his discoveries in astronomy and other sciences, left an indelible mark on the history of science. He used the most advanced astronomical methods of his time and created the "Zij-i-Sultani" star catalog, accurately measuring the positions of stars using the observatory built in Samarkand. This catalog, demonstrating the high level of scientific knowledge of that time, had a great influence on later Western and Eastern scientists. Ulugbek's scientific methods, precise measurements, and systematic approach continue to serve the development of science and astronomy today.

The interest of Western scientists in Ulugbek's works confirms the global significance of his scientific heritage. Great astronomers such as Kepler and Brahe enriched their research using Ulugbek's star catalog. This shows that Ulugbek's scientific work had a significant impact not only on Eastern, but also on Western science.

The observatory in Samarkand, as the scientific center of its time, created new opportunities not only for astronomy, but also for other sciences. Ulugbek's scientific heritage is highly valued today, and his star catalog and observatory activities still serve as an important source for scientific research.

Ulugbek's scientific legacy had a huge impact not only on the science of his time, but also on the development of subsequent centuries. His scientific works included the most advanced knowledge of his time and are still of great importance in the world of science today. Ulugbek's discoveries in astronomy and his scientific legacy confirm that he left an indelible mark on history as a great scientist.

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