

THE SCIENTIFIC HERITAGE OF THE SCIENTISTS WHO LIVED IN CHAGANIYAN IN IX-X CENTURIES

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Received: Feb 22, 2024; Accepted: March 29, 2024; Published: May 18, 2024;

Abstract: In the 9th-10th centuries, Chaganion became one of the major cultural centers of Central Asia. Along with the socio-economic development of the country, this was caused by the great care of Chaganiyan emirs for the development of science and culture.

Keywords: Chaghaniyan, Abu Bakr al-Saghani, Abu Hamid al-Saghani, "Sunan", Abu Rayhan Beruni, "Monuments from ancient peoples"



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Annotation

In the 9th-10th centuries, Chaganiyan became one of the major cultural centers of Central Asia. This was caused by the socio-economic development of the country, as well as the great care of Chaganiyan emirs for the development of science and culture. During the period when Chaganiyan rulers ruled Khorasan and other countries, they invited many accomplished poets and scientists to their palaces. They created all the conditions for their creativity.

During this period, the scientists who graduated from Chaganiyan worked for the development of science not only in their native countries, but also in different parts of the world. Among them, Abu Bakr al-Saghani (9th century), Abu Hamid al-Saghani (10th century) and others are among the scientists who matured in the scientific environment of Chaghani.

There is very little information about Abu Bakr al-Saghani. In the sources, the opinions expressed about Abu Bakr al-Saghani are expressed more in connection with the great Muhaddith Abu Dawud Suleiman (817-888). Because Abu Bakr al-Saghani, talking about the book "Sunan" of the great muhaddith Abu Dawud Suleiman, quoted these words: "For David, the iron was softened by Allah Almighty, the hadith is the same for Abu Dawud Suleiman. It's made comfortable in a way." Unfortunately, it is not clear from which work of al-Saghani these thoughts were taken, but it is enough to understand that the scholar himself lived in the 9th-10th centuries and was an accomplished scholar, especially a muhaddith[7:74].

The place of Abu Hamid Ahmad ibn Muhammad al-Saghani al-Usturlabi is incomparable among the scholars who grew up in the 10th century. Alloma received his first education in Chaganiyan, where he was born and raised. Later, he created in different cities of Movarounnahr and Khurasan. There is information that he also created in the city of Termiz[5:254].

Ahmad al-Saghani worked in the Baghdad observatory in 980-989. Abu Rayhan Beruni stated that Abu Hamid Ahmad ibn Muhammad al-Saghani was the greatest scientist after the famous Baghdad astronomer Abu Sahl Wijnan ibn Rustam Kohi[1:222].

Ahmed al-Saghani was one of the great scientists who had many successes in the fields of geometry and astronomy. He invented the astrolabe and other astronomical devices for observing celestial bodies. Usturlubi took the ratio from that. The equipment he created was well known to astronomers of that time. Several of his students became famous and proud of their teachers. Ahmad al-Saghani achieved results that no one else could achieve in the improvement of ancient equipment [3:63].

Ahmad al-Saghani's scientific heritage is recognized by many scientists. According to Abu Rayhan Beruni, he used scholars' calculations to write the Jewish years and periods in his work entitled "Memorials from Ancient Nations". In the work "Geodesia" it is stated that al-Saghani precisely found the latitude of Baghdad in 965 [2:101].

Today in the libraries of Istanbul and Patna of Alloma, "Illustration of the celestial sphere in a plane", in Paris and Damascus "Making the side of a right heptagon placed in a circle", "On distances and volumes", in the Bodleian library in Oxford "On clocks made on astrolabe plates", such works as "Finding the Meridian Line" are preserved. Some of his works have not reached us [5:256].

Abu Hamid Ahmad ibn Muhammad al-Saghani died in 990 in Baghdad. Based on the date of his death, it can be suggested that he was born in the first quarter of the 10th century.

Another scholar who grew up from Chaghani is Raziuddin (sometimes Raziyyiddin) Abul Fazl al-Hasan ibn Muhammad ibn al-Hasan al-Chaghani. The sources state that the scientist was born in Lahore in 1181 and died in Mecca in 1252. He worked in Lahore for many years as an ambassador of the Caliphs of Baghdad, returned to Baghdad in the last years of his life, and finally made a pilgrimage to Mecca and died there. This scholar, whose surname is the origin of his ancestors, was one of the founders of Persian-Tajik lexicology and one of the scholars who made a significant contribution to the development of Arabic lexicography. The new trends in the Persian-Tajik lexicology of the next century in many respects go back to the traditions of Saghani's scientific activity. Saghani's twelve-volume "Majma' al-Bahrayn" ("Two Seas Majui") and twenty-volume "Al ubab uz-zahir wal-l lubab ul-fahir" ("High waves and open cores ») and scientific books on the dictionary called "At-takmila wa-z-zayl wa-s-sila" ("Supplement, supplement and comments"), which includes several volumes. Firuzabadi (14th century) used Saghani's works effectively in creating his dictionary "Al-Qamous", while the lexicological activities of Yusuf Maghribi and other scholars were the result of the influence of Saghani's scientific heritage. developed as a

Abu Khoris Muhammad ibn Ahmad ibn Farigun was included in the dynasty of Chaganiyan emirs compiled by E.V. Rtveladze, who served as emir in Chaganiyan in 987-990. Abul Khoris, who was the emir of Juzjan, came to the throne after Abul Qasim al-Hasan ibn Ahmad (976-987 years). It seems that Abul Kharis paid a lot of attention to the people of knowledge and poetry. For example, the work "Kitab hudud al-olam milal Mashriq ilal Maghrib" ("The book about the borders of Eastern and Western countries"), whose author is unknown, was written in his name (in Persian in 983)[6:148].

"Hudud al-Olam" is one of the masterpieces of the peoples of the Near and Middle East. In particular, it provides interesting information about Amudarya, Chagonrud, Chaganion, Termiz and Balkh, Tokharistan, Khatlon, Vakhsh, Qabadion from the geographical areas related to our

oasis. According to Hudud al-Olam, Chaganiyan is a convenient and spacious place for agriculture. The climate is mild, the land is good, and the water digests food quickly. Horses are bred here, cloth, carpets, and rice are made from wool. The capital of this region is the city of Chagoniyan, there was probably a building at the foot of the mountain. There are flowing waters [4:114].

Conclusion

In conclusion, in the Middle Ages, Chaganion was one of the major cultural centers. Chaganian emirs were able to show themselves as enlightened rulers. Their concern for science led to the formation of a scientific and literary environment in Chaganiyan. Scholars who created in Chaganiyan promoted the ideas of humanity, bravery, love and glorification of work in their works. All this was of great importance in the social and cultural life of Chaganiyan during the Middle Ages.

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