## **Qotb Al-Din Shirazi**

(634-710AH/1236-1311AD)\*



Qotb Al-Din Al-Shirazi Muhammd Ibn Massud Ibn Muslih al-Farissi (1) was born in Shiraz, Iran in October 1236 (1,2). His family had a tradition of Sufism and his father, Zia al-Din Mas'ud Kazeruni was a leading Sufi of the order and also he was a physician by profession as the ophthalmologist (2,3). He practiced and taught medicine at the Mozaffari hospital in Shiraz. He died when Qotb al-Din was at the age of fourteen. Then Qotb al-Din trained and studied medicine under his uncle Kamal al-Din Abu'l Khayr (2,4). At the same time that Qotb al-Din lost his father, his uncle replaced him as the ophthalmologist at the Mozaffari hospital in Shiraz. Qotb al-Din also pursued his education under Sharaf al-Din Zaki Bushkani, and Shams al-Din Mohammad Kishi. These scientists and his uncle were expert teachers of the Qanun (the Canon), of Avicenna which is one of the most famous text books in medicine in Iran. When he became a student of Nasir al-Din Tussi (3) he studied the commentary on Canon written by Fakhr al-Din Razi (1). These two books led him to write his own commentary and resolved many of his issues (1-3).

He made several journeys to Iraq, Egypt and Konya in Anatolia. This was a time when the Persian poet, Molana Jalal al-Din Muhammad Balkhi (Rumi) was gaining fame there and it is reported that Qotb al-Din also met him and was inspired by him (1,4) then for a certain time he stayed in Egypt before returning back to Tabriz (Iran) where he died in (1).

Qotb al-Din Shirazi was a physician; he was also one of the prominent scientists in mathematics, Astronomy, physics and philosophy (1,5). In the domain of physics, he was the first person who gave a correct explanation for the formation of the rainbow and has an unprecedented and comprehensive argument about it. He explained how the rainbow phenomenon occurs. He says that when it's raining, the small water drops are in the air and sun rays fall on them. The sun rays then undergo an internal reflection and become apparent to the eye (1,2,5). He developed the researches of his teacher Nasir al-Din Tussi, about astronomical model of Mercury (1,2,4). Two of his famous philosophical works are, a commentary on Suhrawardi's Philosophy of Illumination (Hikmat al-ishraq) which is a philosophical encyclopedia, and Pearly Crown "Durrat al-taj fi-ghurratt al-Dibaj", written in Persian around 1306 (705 AH) (1,5).



A manuscript copy of Shirazi's al-Tuhfa al-Shahiya, 15th century

Besides his scientific activity, he practiced justice and diplomacy. He was also a master chess player and played the musical instrument known as the Rabab, a favorite instrument of the Persian poet Molana Jalal al-Din Muhammad Balkhi. He also wrote poetry but apparently did not leave a divan (a book of poems) (1,2,4).

Some of most influential works of Qotb al-Din in medicine are:

- Kitab "Nuzhat al-Hokama wa Rawzat al-Atiba": (Scholars and Physician's Guide). It is a comprehensive commentary in five volumes on Ibn Sina's Canon.
  - Kitab "Rissala fi Bayan al-Hajat ela'l Tib wa Adab al-Atiba wa Wassayahom".
  - "Rissala fi Barass": (A treatise on Leper).

\*AH:in the Islamic calendar, AH stands for the Latin Anno Hegirae (Hijri year) (The year CE 2010 corresponds to the Islamic Year 1431 AH)

## REFERENCES

- 1. John Walbridge, Encyclopaedia Iranica, University of Leiden, page 503-509
- 2. IRCICA, Mathematicians, Astronomers and other Scholars of Islamic Civilization and their works, Istanbul, 2003, 668
- 3. Encyclopedia Iranica, "QOTB-AL-DIN ŠIRĀZI, Mahmud b. Żiā-al-Din Masud b. Mosleh", Sayyed Abd-Allāh Anwār
- Kennedy, E. S. Late Medieval Planetary Theory, Isis, Vol. 57, No. 3. (Autumn, 1966), pp. 365-378., The University of Chicago Press
- 5. A. Baker and L. Chapter (2002), "Part 4: The Sciences". In M. M. Sharif, "A History of Muslim Philosophy", *Philosophia Islamica*.

## Maryam Javanbakht, M.D.

Email Address: javanbakht@nritld.ac.ir