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Jurjānī: ‘Alī ibn Muḥammad ibn ‘Alī al-Ḥusaynī al-Jurjānī (al-Sayyid al-Sharīf)

Alnoor Dhanani

Born Taku (near Astarābādh, Gurgān, Iran), 1340

Died Shiraz, (Iran), 1413

Jurjānī's contribution to astronomy is in his role as commentator on several significant astronomical texts of his time. Jurjānī's interest in science and philosophy is evident in his journey to Herat (Afghanistan) to study with the aged Quṭb al-Dīn Muḥammad al-Rāzī (died: 1365), who wrote on logic, philosophy, and theology. Al-Rāzī was a student of the Shī'ī scholar ‘Allāma al-Ḥillī (died: 1325), who in turn had studied with the astronomer, philosopher, and theologian **Naṣīr al-Dīn al-Ṭūsī** at the Marāgha Observatory. Pleading advanced age, al-Rāzī declined Jurjānī's request to study with him, recommending instead that Jurjānī study with his student Mubārakshāh, who was known as “the logician” (*al-Mantiqī*), in Cairo. Jurjānī's subsequent journey to Cairo took 6 years as he traveled and studied with scholars. In 1371, Jurjānī arrived in Cairo to study religious, linguistic, and rational disciplines. Four years later, he returned to Iran by way of Constantinople, then under Byzantine rule. In 1377 he was invited to join the court of the Muẓaffarid ruler Shāh Shujā‘ (reigned: 1353-1384) in Shiraz. Following Tamerlane's capture of Shiraz in 1387, Jurjānī was forced to relocate to Tamerlane's court in Samarqand. Here he encountered the elderly distinguished scholar Sa‘d al-Dīn al-Taftazānī (died: 1390), who had also been brought to Samarqand by Tamerlane. Like Jurjānī, al-Taftazānī had written commentaries on works in several disciplines, but from a conservative perspective. Jurjānī engaged him in several debates in the presence of Tamerlane. After Tamerlane's death in 1405, Jurjānī returned to Shiraz where he resided until his death.

Jurjānī lived during the turbulent aftermath of the Mongol conquest of the lands of Islam up to the emergence of the Timurid empire. Intellectually, this period is characterized by the proliferation of commentaries, supercommentaries, and glosses on the “canonical texts” of various disciplines. Jurjānī's voluminous writings, of about 100 works, are characteristic in this regard. The 16th-century historian Khwāndamīr noted that Jurjānī “has glosses on most books by the ancients and moderns in the curriculum. Indeed, from his own time until the present, no lesson is given without the benefit of his glosses and studies.”

Jurjānī cannot be considered an astronomer in the strict sense - he was neither engaged in observational nor in theoretical astronomy. Nor is he the author of independent astronomical treatises. His astronomical writings, that is to say, commentaries on the significant astronomical texts of his time, are a small part of his total corpus. These consist of his commentaries on Ṭūsī's

The Memoir on Astronomy, **Qutb al-Dīn al-Shīrāzī's** *The Imperial Gift*, and **Mahmūd al-Jaghminī's** *The Compendium of Cosmology*. His grasp of astronomy is evident in these commentaries. He even suggests textual emendations to the manuscripts he had consulted. While multiple copies of these commentaries have survived, the task of editing and publishing them is still incomplete.

Besides these “purely” astronomical texts, Jurjānī participated in the wider dissemination of astronomy *via* his commentaries on theological texts, which were part of the curriculum of the religious colleges (*madrasas*). The universe and its constituents is a standard motif of these texts. In his commentaries on Ṭūsī's *Paring Down to the Articles of Faith* and 'Aḍud al-Dīn al-Ījī's (died: 1355) influential theological text *Stations of the Discipline of Kalām* as well as his supercommentary on al-Razī's *Commentary on the Risings of Light*, Jurjānī supplements, explains, and glosses discussions related to astronomy. Jurjānī's commentaries became the subject of further supercommentaries and glosses. In this manner, aspects of astronomy were scholasticized and persisted for centuries in religious colleges *via* their inclusion in theological texts. This could include new observational findings; regarding precession, Jurjānī, in his commentary on the *Stations*, tells theology students: “a group of recent investigators who have determined that it describes one degree every seventy years which confirms the new measurements made at Maragha.” Also included was the important distinction between “fact” and “reasoned fact,” the former being within the purview of the astronomer while the latter was for the natural philosopher to determine. Since many doctrines of the natural philosophers were suspect from the point of view of Muslim theologians (such as **Aristotle's** insistence upon the necessity of nature and the immutability of the celestial realm), a number of other views were put forth and debated, such as the possibility of void space and the expansion and contraction of the celestial sphere, in order to maintain God's omnipotence and volition.

Another point of debate in these theological texts was the question of the reality of the celestial orbs. Al-Ījī had declared that they were imaginary, no more real than a “spider's web.” But Jurjānī disagreed: “Even though the circles have no external reality, being imaginary entities, they are still valid imaginary entities corresponding to what actually is the case ... they are not invalid imaginary entities such as fangs of ghouls or ruby mountains or two-headed humans!” For Jurjānī, the astronomer's role was to understand God's creation, thereby glorifying its wondrousness.

Selected References

Al-Ījī, 'Aḍud al-Dīn (n.d.). *al-Mawāqif fī 'ilm al-kalām*. Beirut: 'ālam al-kutub.

Al-Jurjānī, 'Alī ibn Muḥammad ibn 'Alī al-Sayyīd al-Sharīf (1907). *Sharḥ al-Mawāqif fī 'ilm al-kalām*. 8 Vols. in 4. Cairo: Maṭba'at al-Sa'īda.

——— (2000). *Sharḥ abyāt al-mufaṣṣal wa-'l-mutawassiṭ*, edited by 'Abd al-Ḥamīd al-Fayyāḍ al-Kubaysī. Beirut: Dār al-Bashā'ir al-Islāmiyya.

Gümüs, Sadreddin (1984). *Seyyid Şerîf Cürçânî*. Istanbul: Fatih Yayınevi Matbaası.

Khwandamir (1994). *Habibu's-Siyar, Vol. Three: The Reign of the Mongol and the Turk. Part One, Genghis Khan - Amir Temür*, translated and edited by W. M. Thackston. Cambridge, Massachusetts: Department of Near Eastern Languages and Civilizations, Harvard University, pp. 302-303.

Ragep, F. J. (1993). *Naşir al-Dīn al-Ṭūsī's Memoir on Astronomy (al-Tadhkira fī 'ilm al-hay'a)*. 2 Vols. New York: Springer-Verlag.

——— (2001). "Freeing Astronomy from Philosophy: An Aspect of Islamic Influence on Science." *Osiris* 16: 49-71.

Sabra, A. I. (1994). "Science and Philosophy in Medieval Islamic Theology: The Evidence of the Fourteenth Century." *Zeitschrift für Geschichte der Arabisch-Islamischen Wissenschaften* 9: 1-42.