

From: Thomas Hockey et al. (eds.). *The Biographical Encyclopedia of Astronomers*, Springer Reference. New York: Springer, 2007, pp. 792-793

Courtesy of  Springer  
science+business media

[http://dx.doi.org/10.1007/978-0-387-30400-7\\_964](http://dx.doi.org/10.1007/978-0-387-30400-7_964)

# Mizzī: Zayn al-Dīn [Shams al-Din] Abū ‘Abd Allāh Muḥammad ibn Aḥmad ibn ‘Abd al-Raḥīm al-Mizzī al-Ḥanafī

François Charette

---

**Born probably al-Mizza near Damascus, (Syria), 1291**

**Died Damascus, (Syria), 1349**

Mizzī was a *muwaqqit* (*i. e.*, an astronomer appointed to a mosque who is responsible for regulating the times of prayer), an instrument maker, and the author of numerous treatises on astronomical instruments. He studied in Cairo under the well known physician and encyclopedist Ibn al-Akfānī. He was first appointed as a *muwaqqit* in al-Rabwa, a quiet locality near Damascus, and then at the Umayyad Mosque in Damascus, a position he held until his death. Mizzī authored treatises on the use of the astrolabe, the astrolabic quadrant, and the sine quadrant. In particular his treatises *al-Rawḍāt al-muzhirāt fī al-‘amal bi-rub‘ al-muqanṭarāt* (On the astrolabic quadrant) and *Kashf al-rayb fī al-‘amal bi-’l-jayb* (On the sine quadrant) were popular. He also wrote on the use of less common instruments, such as the *musattar* (concealed) and the *mujannah* (winged) quadrants.

Although he made few original contributions to instrument making in particular or to astronomy in general, Mizzī was nevertheless an important and influential authority in the field, whose didactic treatises were appreciated by students of applied astronomy dealing with timekeeping (*‘ilm al-mīqāt*). The instruments he made were highly praised as being the best of his times and sold for considerable prices, namely 200 dirhams or more for an astrolabe, and at least 50 dirhams for a quadrant. Some five quadrants of his fabrication are extant, dated between the years 1326/1327 and 1333/1334. According to the 15th-century astronomer Ibn al-‘Atṭār, he also made astrolabes with mixed projections (*i. e.*, with markings obtained by a combination of stereographical projections about the North Pole and South Pole, respectively). According to his biographer al-Ṣafadī, Mizzī also excelled in oiling bows (*bara‘a fī dahn al-qisī*) and impressed his contemporaries by constructing mechanical devices such as those of **Banū Mūsā**.

---

## Selected References

Al-Safadī. (1911). *Nakt al-himyān fī nukat al-‘umyān*. Cairo, p. 244.

Brockelmann, Carl (1938). *Geschichte der arabischen Litteratur*. 2nd ed. Vol. 2 (1949): 155–156; Suppl. 2:

156, 1018. Leiden: E. J. Brill.

Charette, François (2003). *Mathematical Instrumentation in Fourteenth-Century Egypt and Syria: The Illustrated Treatise of Najm Al-Dīn Al-Miṣrī*. Leiden: E. J. Brill.

Combe, Étienne (1930). "Cinq cuivres musulmans datés des XIIIe, XIVe, et XVe siècles, de la Collection Benaki." *Bulletin de l'Institut français d'archéologie orientale* 30: 49-58, esp. p. 56.

Dorn, B. (1865). "Drei in der Kaiserlichen öffentlichen Bibliothek zu St. Petersburg befindliche astronomische Instrumente mit arabischen Inschriften." *Mémoires de l'Académie impériale des sciences de St. Pétersbourg*, 7th ser., 9: 1-150, esp. pp. 16-26 and plates.

Féhérvári, Géza (1973). "An Eighth/Fourteenth-Century Quadrant of the Astrolabist al-Mizzī." *Bulletin of the School of Oriental and African Studies* 36: 115-117 and two plates.

Ibn Hajar (1966-67). *Durar al-kāmina fī a'yān al-mi'a al-thāmina*. 5 Vols. Vol. 3, p. 410, no. 3392. Cairo: Dār al-Kutub al-Hadītha.

King, David A. (1986). *A Survey of the Scientific Manuscripts in the Egyptian National Library*. Winona Lake, Indiana: Eisenbrauns, no. C34.

——— (1993). "L'astronomie en Syrie à l'époque islamique." In *Syrie, mémoire et civilisation* (exhibition catalogue), edited by Sophie Cluzan, Eric Delpont, and Jeanne Mouliérac, pp. 386-395, with descriptions of related objects on pp. 432-443. Paris: Institut du monde arabe and Flammarion. (On Mizzī see esp. pp. 391, 438.)

Suter, Heinrich (1990). "Die Mathematiker und Astronomen der Araber und ihre Werke." *Abhandlungen zur Geschichte der mathematischen Wissenschaften* 10: 165.