



ASFEZĀRĪ, ABŪ ḤĀTEM

ASFEZĀRĪ, ABŪ ḤĀTEM MOẒAFFAR B. ESMĀ'ĪL, 5th/12th-century astronomer, of whose life almost nothing is known. His *nesba* indicates that he was from Asfezār, a town in Sīstān between Herat and Farāh. According to Ebn al-Aṭīr (X, p. 98) he was among the leading astronomers commissioned by the Saljuq Sultan Malekšāh (r. 465-85/1072-92) to revise the calendar. Neẓāmī 'Arūzī (*Čahār maqāla*, p. 100) claims to have encountered Asfezārī in the company of 'Omar Kayyām at Balk in 506/1112-13. References by his contemporary Šahmardān b. Abi'l-Kayr and his pupil 'Abd-al-Raḥmān Kāzenī (apud Mo'in in *Čahār maqāla*, pp. 367-69) put his death before 515/1121-22. According to Bayhaqī (no. 68, p. 71, tr. Wiedemann, I, p. 653, tr. Meyerhof, pp. 175-76), Asfezārī constructed a "balance of Archimedes" which was used at the court of Sultan Sanjar (r. 511-52/1118-57) until it was smashed by Sa'āda, the royal treasurer. It is alleged that, on hearing the news of the destruction of his instrument, Asfezārī died of grief. If this is true, then Asfezārī must have spent the last years of his life in Marv where Sanjar held his court.

Asfezārī's work on the balance was continued by 'Abd-al-Raḥmān Kāzenī (fl. early 6th/12th century). In his *Ketāb mīzān al-ḥekma* Kāzenī devotes the second section of the *maqāla* to a description of Asfezārī's results in this field (ed., pp. 38-54, tr. Wiedemann, pp. 141-58; *ibid.*, in tr. E. Wiedemann, *Aufsätze I*, pp. 500-17), and the beginning of the fifth *maqāla* describes his uncompleted project of an elaborate balance with five pans, which was eventually completed by Kāzenī himself and called the "balance of wisdom" (*mīzān al-ḥekma*) (ed., p. 93).



In addition to his work on balances Asfezārī wrote an epitome of Euclid’s *Elements* entitled *Ektešār fi oṣūl Oqlīdes*, of which only the fourteenth *maqāla* survives in a manuscript in Paris copied in Šawwāl, 539/March-April, 1145, which was translated into French by Sédillot (“Notice,” pp. 146-48). He also wrote a *Moqaddema fi’l-mesāḥa* (Introduction to surveying), preserved in a manuscript in Istanbul (Krause, “Handschriften,” p. 483), and an epitome of the *Ketāb al-ḥīal* (Book of stratagems) of Banū Mūsā, which survives in a manuscript at Manchester (Brockelman, *GAL*, S. I, pp. 383, 856). His *Resāla-ye ātār-e ‘olwī*, completed before 500/1106-07 and dedicated to Faḵr-al-molk b. Neẓām-al-molk, the vizier of Sultan Berk-yaruq (Barkīāroq), has been edited by M. ‘A. Modarres Rażawī (Tehran, 1320 Š./1941). Finally a manuscript in Malek Library (no. 3183) in Tehran includes a *Resālat al-šabaka* which is specifically ascribed to him (see Mo’in’s note in *Čahār maqāla*, pp. 372-73). No further works of Asfezārī have come to light, although Bayhaqī claims that he wrote many books on geometry, meteorology, and other subjects.

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