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Aḥmad Mukhtār: Ghāzī Aḥmad Mukhtār Pasha

Salim Aydüz

Born Bursa, (Turkey), 1839

Died Istanbul, (Turkey), 21 January 1919

Aḥmad Mukhtār was a soldier and a statesman (rising to the rank of Turkish general and receiving the title "Ghāzī" or warrior) who also wrote many works in the fields of mathematics and astronomy. He is known especially for his studies on reforming the Islamic calendar as well as the making and use of astronomical instruments.

Aḥmad Mukhtār stemmed from a family prominent in the silk trade; after the death of his father, he was educated in various military schools, and the military became his lifelong career. Aḥmad Mukhtār established close ties with the Ottoman court, which led to his tutoring Prince Yūsuf 'Izz al -Dīn (1865) and accompanying Sultan 'Abd al-'Azīz to Europe in 1867. He served the state for 55 years and rose to high rank, becoming president of the Senate in 1911 and Grand Vizier for a brief period in 1912. Aḥmad Mukhtār remained in the Senate until 1918 just before his death. Because of his military success, he was granted numerous titles, including Ghāzī and Pasha.

Aḥmad Mukhtār contributed much to the field of astronomy, especially with regard to reforming the Islamic (hijra) calendar. When he was in Egypt between 1882 and 1908 as Ottoman High Commissioner, he wrote his Işlāḥ al-Taqwīm (written in both Turkish and Arabic) that dealt with the fiscal problems caused by the discrepancies between the Hijra and Gregorian calendars. Aḥmad Mukhtār advocated a uniform Hijra solar (Shamsī) year for all Muslims. In accordance with his new calendar system, the work contains a tabulation of conversions between lunar-hijra, Gregorian, and solar-hijra New Year's days until 2212. The work was also translated into French. Other works dealing with the calendar include Taqwīm al-sinīn, which lists in tabulated form the daily equivalents between the lunar and Gregorian calendars, covering the hijra years 1256 to 1350 (circa 1840-1931), and Taqwīm-i sāl, which provides general information about the calendar in the Ottoman Empire. He also wrote other works dealing with calendars, some of which are in Arabic.

Another astronomical work, entitled Riyad al-mukhtar mir'at al-miqat wa-'l-adwar, deals with timekeeping. Written in Istanbul, the work contains information on instruments and their categorization. Other subjects include measurement of time, information about latitude and longitude, and an evaluation of calendars. $Majm\bar{u}$ 'ah-i ashkal is a supplement at the end of the book containing figures and tables. Ahmad Mukhtar also wrote a work on the definition and use of an astronomical instrument called al-Basita.

Finally, another important work of Mukhtār Pasha should be mentioned here. Entitled *Sarā'ir al-Qur'ān fī taqwīn wa-ifnā' wa-I'ādat al-akwān* and published in Istanbul in 1917, it was written in order to reconcile religious issues with scientific discoveries and discusses how to reconcile Qur'ānic verses with the latest developments in science. This work was one of the first during the modern period to address these issues and was later translated into Arabic from Turkish.

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