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Amājūr Family

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Flourished **late 9th/early 10th century**

The Amājūr Family includes Abū al-Qāsim ‘Abd Allāh ibn Amājūr al-Turkī al-Ḥarawī, his son Abū al-Ḥasan ‘Alī, a certain ‘Alī ‘Abd Allāh ibn Amājūr, and Abū al-Ḥasan's freed slave Muflīḥ ibn Yūsuf. They are known for their extensive observational astronomical work, and for compiling the results of these observations into several *zīj*es (astronomical handbooks). It is said that they were assisted in their observations by a large group of people.

There is little information about the Amājūr Family's lives in either historical or modern sources. There is also some ambiguity about their names and identities. **Ibn Yūnus** refers to the father as al-Turkī and mentions another person as having assisted him in doing the astronomical observations along with his son and his slave. Ibn al-Qifṭī, though, refers to Abū al-Qāsim as al-Ḥarawī from the city of Herat; he informs us that the son Abū al-Ḥasan ‘Alī was raised by his father, who had educated him in the sciences. Ibn al-Qifṭī considers ‘Alī ibn Amājūr as a separate person, and not necessarily related to Abū al-Qāsim. Both Ibn al-Nadīm and Ibn al-Qifṭī believe that the family hailed from Farghāna.

The Amājūr Family carried out their astronomical observations between 885 and 933; most of their work took place in Baghdad and, to a lesser extent, in Shīrāz. Their long-term astronomical observations, which lasted 30–50 years, involved work on the fixed stars, the Sun, the Moon, and the planets. There has been speculation that there was an observatory of some sort in connection with the Amājūr Family based on their needs for precise observations and for recording their results. There is also a report that a large group aided the Amājūr Family with their observations. Ibn Yūnus, who records observations of solar and lunar eclipses and planetary positions by the Amājūr Family, indicates that they carried out their observations at a raised, flat place with a view, called a “*ṭārum*” or “*ṭāruma*.” On the basis of his research, Caussin concludes that there was an observatory.

There is little information regarding the instruments that were used by the Amājūr Family. However, ‘Abd Allāh ibn Amājūr mentions one he used to observe a solar eclipse on 18 August 928 with Abū al-Ḥasan and Muflīḥ. From the information provided on this observation, Caussin determined that the instrument had to be quite large given the preciseness of the measurements.

‘Abd Allāh ibn Amājūr was apparently well known in his time, and he wrote a number of books, most of them *zīj*es. According to D. King, ‘Alī ibn Amājūr worked on improving **Khwārizmī**'s (9th century) prayer tables, providing the approximate times for different latitudes. ‘Alī ibn Amājūr also prepared a prayer table for Baghdad, based upon precise trigonometrical calculations.

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