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The Unsanctified Space: Observatories in Islamic Lands

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The two major observatories built in Samarkand and Istanbul during the 15th and 16th centuries, as the last significant observatories in the Islamic world, shared a common fate: both were destroyed. However, the circumstances of their destruction and the historical narratives surrounding their demise differ. The reasons behind their destruction appear to remain shrouded in ambiguity and popular stories, but perhaps local historical texts can provide more information about these destructions.

The Samarkand Observatory was built by Ulugh Beg in 1420. During his rule over Samarkand, this observatory was able to carry out an observational program, and its results led to the writing of astronomical tables. However, with the death of Ulugh Beg, the observatory lost its momentum, was forgotten, and eventually fell into ruin. In less reliable stories, there is always talk of the observatory's destruction after Ulugh Beg's death, as if the narrators of these stories believe that the observatory only survived with Ulugh Beg's power and had to be destroyed after that. Similar popular folklore can be seen about the end of the Maragheh Observatory as well. Interestingly, these stories do not mention Ulugh Beg's madrasa, where the same astronomical studies were taught, and the madrasa still stands today.

The Istanbul Observatory was also built by order of Sultan Murad III in 1575 and was destroyed by his order only five years later. The main reasons given for the destruction of this observatory are religious objections and political rivalries. The appearance of the 1577 comet and the outbreak of plague are mentioned as factors that intensified these objections and the final cause.

In Istanbul, too, after the destruction of the observatory, astronomical studies continued to be taught in madrasas, and no madrasas were destroyed. However, the observatory, as an unsanctified space, was easily removed. What distinguishes the observatory from other places of this era is the view that exists about it. The experience of all three observatories of Maragheh, Samarkand, and Istanbul shows that these observatories did not have social, religious, or popular acceptance and were able to survive only as long as they had the support of powerful patrons. The funding for these institutions, similar to the Maragheh Observatory, came from endowments. Does this lack of acceptance stem from the nature of their scientific pursuits, or was curiosity about divine secrets and the heavens not very acceptable at all? Were these institutions, in fact, considered unsanctified places in the minds of the people?

To answer these questions, we have tried to find an answer not from the astronomical texts of scholars, but from local histories and secondary reports that, in addition to reporting historical events, have combined popular analyses, stories, and folklore.

Short Biography

Mostafa Yavari is a Ph.D. candidate in the history of astronomy at the University of Tehran. His research focuses on astronomical tables and mathematical astronomy in the medieval Islamic world. Yavari's research interests include ancient Babylonian and Islamic astronomy, medieval astronomical instruments, astronomical tables, and their connections to astronomical models. He is a contributing author to the history of science entries in the Encyclopedia of the Islamic World

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