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Light-Colour Relationship in Taqi al-Din and His Primary Source Ibn al-Haytham

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The 16th-century polymath Taqi al-Dīn Muḥammad ibn Ma'rūf wrote a work in the science of optics that would enable him to be recognised as one of the peak figures of the Ottoman classical period. This work, entitled 'Nawr ḥaḍīqat al-abṣar wa-nūr ḥaḳīqat al-Anẓar', cites Ibn al-Haytham's Kitāb al-Menāzir as one of its main sources in its introduction. Taqi al-Dīn's work uses numerous experimental setups to present the theoretical content under the headings of direct vision, vision through reflection, and vision through refraction. In these experiments, especially the effort to understand the relationship between light and colour is frequently encountered. This study aims to examine Taqi al-Dīn's understanding of the relationship between light and colour in comparison with his primary source, Ibn al-Haytham. Taqi al-Dīn's and his source Ibn al-Haytham's frequent study of the problem of the colour of light being carried by reflection and refraction in dark room setups, their efforts to understand the nature of colour, and the importance of their works in the history of science in terms of colour theory are issues that need to be examined.

Short Biography

Sena Aydın completed her undergraduate studies in the Department of Physics at the Faculty of Arts and Sciences, Boğaziçi University, between 2006 and 2011. She pursued her master's degree in the same department at Boğaziçi University, completing her thesis in 2015 on "The Introduction of Modern Optics into Ottoman Science." In 2020, she began working as a research assistant at Istanbul Medeniyet University, Faculty of Literature, Department of the History of Science. She completed her doctoral studies in 2022 at the Institute of Graduate Studies, Istanbul Medeniyet University, with a dissertation titled "In Search of the Truth of Light: Rainbows, Halos, and the Problem of Colors in the Ottomans (1300–1600)." She is currently working at the Institute for the History of Science at Istanbul Medeniyet University as an Assist. Prof. The candidate has numerous academic works, including a book derived from her doctoral dissertation, articles indexed in national and international databases, and papers presented at national and international conferences.

Keywords

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