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### **Ibn al-Haytham and His Influence on Post-Medieval Western Culture**

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Born in Basra in 965, but doing most of his work in Cairo's Al-Azhar Mosque, Ibn al-Haytham (Latinized as Alhazen or Alhacen) wrote nearly one hundred works on topics as diverse as optics, poetry and politics. For nearly four hundred years his treatment of a particular geometry of reflection from flat and curved surfaces has been known as "Alhazen's problem," and today al-Haytham is primarily known for his writings on geometrical optics, astronomy, and mathematics. However, as I will discuss, with his landmark seven-volume Kitāb al-Manāzīr [Book of Optics], published sometime between 1028 and 1038, al-Haytham made intellectual contributions that subsequently were incorporated throughout the core of post-Medieval Western culture. His seminal work on the human vision system initiated what remains an unbroken chain of development that connects 21st century optical scientists with the 11th century Ibn al-Haytham. The noted science historian, David Lindberg, wrote that "Alhazen was undoubtedly the most significant figure in the history of optics between antiquity and the seventeenth century." Impressive and accurate as that characterization is, our recent discoveries show that it significantly understates the impact that al-Haytham had on areas as wide-ranging as the theology, literature, art, and science of Europe. Portions of this work was done in collaboration with David Hockney.