Did the great masters “cheat” using optics?
The mysterious rise in naturalism in Renaissance painting

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In 2001, artist David Hockney and physicist Charles Falco stunned the art world with a controversial theory that, if correct, would profoundly alter our view of the development of image making. They claimed that as early as 1420, Renaissance artists employed optical devices such as concave mirrors to project images onto their canvases, which they then traced or painted over. In this way, the theory seeks to explain the newfound heightened naturalism or “opticality” of painters such as van Eyck, Campin, Holbein the Younger, Hals, Bouts, and others.

This talk for general audiences, profusely illustrated with Renaissance paintings, will present the first independent examinations of the Hockney/Falco theory. It covers basic geometrical optics of image formation, shadows and perspective as well as 15th-century technology with special emphasis on Lotto’s “Husband and wife” (1543), van Eyck’s “Portrait of Arnolfini and his wife” (1434), Caravaggio’s “Supper at Emmaus” (1596-8) and Campin’s “Merode Altarpiece” (1425). While there remain some loose ends, an analysis of the paintings, infrared reflectograms, modern reenactments, and alternate explanations allows us to judge the plausibility of this new theory. You may never see Renaissance paintings the same way again.
van Eyck, “Portrait of Arnolfini and his wife” (1434)

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