

Science in culture

The great portrait mystery

A disputed portrait of Robert Hooke may in fact show a contemporary.

Philip Ball

At the tricentenary of Robert Hooke's death two years ago, no one knew what he looked like. Despite Hooke's reputation as one of the principal architects of the scientific revolution, there were no known surviving portraits of him — an outcome, it was rumoured, of his enmity with Isaac Newton, who did all he could to erase Hooke's image after his death.

But in 2003, historian Lisa Jardine ruffled academic feathers by boldly claiming to have discovered a portrait of Hooke, which featured on the cover of her biography *The Curious Life of Robert Hooke* (HarperCollins, 2003). This painting has resided for more than a century in the Natural History Museum in London, where it was taken to be a portrait of the British naturalist John Ray (1627–1705) painted by the seventeenth-century artist Mary Beale. The painting was bequeathed as such to the museum in 1787 after the death of its former owner, the botanist William Watson.

Jardine argued that the visage looks nothing like other portraits of Ray, and that the features instead match some contemporary descriptions of Hooke, who was said to have bulging grey eyes and curly brown hair and to be of emaciated appearance. Others have found this evidence not only slender but also unconvincing: the face is certainly unusual, but does it really correspond in any regard to these accounts?

Now William Jensen, a specialist in the history of chemistry at the University of Cincinnati, has an alternative proposal. He points out in *Ambix* (51, 263; 2004) that the portrait can be superimposed remarkably well onto an engraving of another influential seventeenth-century scientist, the Flemish chemist and physician Jan Baptista van Helmont (1579–1644). The engraving appears in the 1648 edition of van Helmont's great work



Ortus medicinae, published posthumously by his son Franciscus Mercurius van Helmont (whose likeness is inserted behind his father's on the same page). Van Helmont's writings were never published in his lifetime because he was persecuted as a heretic by the Spanish Inquisition and forced to live under house arrest in Vilvoorde, near Brussels, until his death.

Particularly telling is the wispy moustache and underlip hair in the 1648 work, which is reproduced in the portrait thought to be of Ray. There is no record of Hooke having sported such facial hair. Hooke was only nine years old when van



Getting the brush-off: the above painting, thought to be of Robert Hooke, may have been based on an engraving of Jan Baptista van Helmont.

Helmont died, so there seems to be no possibility of the reverse confusion.

So where did the 'Ray' painting come from? Jensen says that Franciscus van Helmont had his own portrait made while he resided in England during the 1670s, and might have commissioned a picture of his father at the same time, based on the earlier engraving. But then who was the artist? And why did Watson, a hundred years later, have the false impression that he owned a painting of Ray by Mary Beale?

The haunting image clearly still holds mysteries. But the face of poor Robert Hooke may have vanished once more from history.

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aether theorists, and up to A. A. Michelson, Edward Morley, George FitzGerald and Hendrik Lorentz.

Have Lorentz and Henri Poincaré received less than their due in this great conceptual revolution? I think Giulini puts the case fairly: "In retrospect, special relativity seems palpably close in 1905, after all the preliminary works of Voigt, Hertz, FitzGerald, Lorentz, Larmor and Poincaré. But apparently it needed an unprejudiced newcomer to take the final step."

The mathematical demands of these two

volumes are not heavy (Giulini uses nothing beyond high-school algebra), but they do require close attention from the reader. In a lighter vein is John Rigden's enjoyable contribution, *Einstein 1905*. This is a month-by-month chronicle of 1905, Einstein's *annus mirabilis*, in which appeared in quick succession his four epoch-making papers on the photon hypothesis, brownian motion, special relativity and $E=mc^2$. Rigden explains the underlying ideas in clear, elegant, non-mathematical prose. Amusingly, of all of Einstein's 1905 works, the one most cited

today is none of the above (they are scarcely cited at all), but his PhD thesis on the determination of molecular dimensions. This is because the methods he used for it have been widely applied to such problems as the motion of sand particles in cement mixes and of aerosol particles in clouds. As Rigden remarks: "When a paper is so important that it could be cited in almost every paper, it is cited in almost no paper".

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