

TROMPE-L'OEIL

[by John H. Lienhard](#)

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Today, we wage a scientific debate on canvas. The University of Houston's College of Engineering presents this series about the machines that make our civilization run, and the people whose ingenuity created them.

A man walks by Rembrandt's house in 17th-century Amsterdam. Rembrandt's servant girl looks out the window. Next day, same window, same girl. Days later the man realizes he's being duped. It's not the girl at all. It's a marvelously realistic painting.

Here's a fine Dutch painting of flowers. They're so realistic that a bee has landed on one. Now look more closely. The bee, it turns out, is part of the painting. When realism turns into that kind of visual deception, we call it trompe-l'oeil. That means, a trick of the eye.

By 1650 the ghosts of Plato and Aristotle had grappled in strange combat for over a century. The Platonic scientists -- the last alchemists -- believed that knowledge is born in our intuition. But now a new breed of Aristotelians was saying, No! We learn through our senses, not through deduction.

That combat took its oddest turn in these eerie paintings. Science and art now had new tools. We were measuring nature with microscopes and telescopes. We'd wed perspective drawing to Euclidian geometry. Anatomists had been in league with artists for 150 years. All that had driven art to uncanny realism.

Seventeenth-century artists remembered the Greek painter Zeuxis. He was Plato's contemporary. We're told that birds came to peck at the fruit he drew. But Zeuxis struggled with a Platonic question. How do you paint the perfect Helen? He tied his artistic realism to Platonic ideals. He was after more than a record of external reality.

The Platonists of 1650 didn't see that kind of idealism in the new art. They didn't like the way artists fixated on the external world. But they did like the message in illusionistic painting. It was that our senses can fool us -- that the mind might be a more realistic instrument than the eyes after all.

Our Houston Fine Arts Museum is mounting two exhibits, even as I write. One's a set of Leonardo da Vinci's anatomical drawings. He was the first and greatest of these new realists.

The other exhibit, called The Age of the Marvelous, tells what followed Leonardo. First it shows the new artistic science in its purest form. But it also shows pictures that're pure

visual treachery. Those grand illusions actually sound a warning from the losing Platonic scientists.

They remind us that reality can be every bit as deceptive as our imagination can. They remind us that science will uncover the world's secrets only when we keep our minds, as well as our eyes, wide open.

I'm John Lienhard, at the University of Houston, where we're interested in the way inventive minds work.

(Theme music)

Wheelock, A.K., *Trompe-l'oeil Painting: Visual Deceptions or Natural Truths? The Age of The Marvelous*. (Joy Kenseth, ed.) Hanover, NH: Hood Museum of Art -- Dartmouth College, 1991, pp. 179-191.

For more on the Age of the Marvelous exhibit, see [Episode 701](#). I am especially grateful to Alison Eckman and Sandra Zavaleta from The Museum of Fine Arts, Houston, for their help with this episode. Other Engines episodes related to the shift to the external eye of renaissance art include Episodes [111](#), [327](#), [474](#), [511](#), [549](#), [598](#), [603](#), [610](#), [613](#), [614](#), [637](#), [689](#), and [701](#).

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