

attempts to address larger themes, however, things do not always go so well. Frequently he points to missed opportunities to exploit the implications of technical advances and key discoveries. He cites as examples the long hiatus between the discovery of bacteria and the link to infectious disease, and the shorter but still significant gap between the first observations of the antibacterial effects of *Penicillium* moulds in the 1870s and Florey's development of a therapy that worked in the 1940s.

But Wootton's attempts to blame these failures on the blinkered self-interest of medical

men — “doctors were determined no scientific discovery would alter their traditional therapies of bleeding, purging, and vomiting” — are crude and unsatisfying. He claims that medical historians have glorified the link between the laboratory and advances in basic science but overlooked the fact that these discoveries led to no immediate therapeutic advance. But this is simply false, as would be made clear by a quick perusal of such sources as William Bynum's *Science and the Practice of Medicine in the Nineteenth Century* (Cambridge University Press, 1994) or John Harley Warner's *The Therapeutic*

*Perspective* (Harvard University Press, 1986). His global characterization of the state of medical history strikes me as woefully wide of the mark — the subtle relationship between science and medicine requires a far deeper understanding than anything on offer here. And his assertion that the history of modern medicine can be reduced to a paean to scientific progress is a recipe for bad scholarship, of which there is already far too much in the world. ■

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## A miracle in sight

Adam Elsheimer painted the starry heavens in 1609.

### Martin Kemp

The lynx is renowned for its sharp sight. So when the Accademia dei Lincei in Rome bound its inaugural documents into a single volume in 1603, the young German artist Adam Elsheimer provided a painted image of a lynx as its frontispiece. Founded by the Roman nobleman Federico Cesi, the new academy was dedicated to the sciences of Earth and the heavens, and provided a vital forum for Galileo and a cluster of leading intellectuals who were reforming the way that science was conducted.

Elsheimer had travelled a long way in a short time, both geographically and intellectually. The son of a tailor in Frankfurt, he travelled via Venice to Rome, where he settled by 1600. He was quickly cultivated by a circle of avant-garde thinkers and artists, including the Rubens brothers, Peter Paul (the painter) and Philipp (a humanist scholar). The former wrote emotionally on Elsheimer's early death in 1610 that “he had no equal in small figures, in landscapes, and in many other subjects”.

All Elsheimer's paintings are indeed small. They are of extraordinary visual intensity and demand unrelenting scrutiny if they are to disclose their secrets. For this reason, each visitor to the definitive exhibition of his paintings at the Edinburgh Art Festival, which closed earlier this month, was supplied with a magnifying glass. The paintings can now be seen at Dulwich Picture Gallery in London until 3 December.

The science of the Accademia dei Lincei was characterized by intense attention to visual phenomena. Within a few years of its founding, the eye was to be amplified by both the telescope and the microscope. Elsheimer's paintings declare that he was deeply immersed in this culture of taking sight as far as it would go.

Most notable in this respect is his



*Flight into Egypt* (shown here), characteristically painted on copper.

Within its small compass of just 31 × 41 cm, Elsheimer frames

a cosmos of infinite extent, in which heavenly and terrestrial lights sparkle in an astonishing display of observation. A band of light, the Milky Way, extends diagonally from the upper left corner. On close inspection it is not a blur of white pigment but is composed from countless tiny points of varied size (see inset). It is hard to believe that Elsheimer did not use a magnifying device; we certainly need one.

Other heavenly bodies are recognizable too. The Great Bear is visible in the upper right. The Moon, deliciously reflected in the lake, is painted not in the normal uniform manner but with a full array of surface features.

Against this display of cosmic light is set the torch of Joseph, softly illuminating the faces of mother and child as they travel on their ass to safe haven in Egypt. Further

back on the left (and partly obscured here), two peasants tend a blazing fire that shoots fusillades of sparks high into the night air.

The scene was painted in 1609, a year before Galileo published his telescopic observations. Given the circles in which Elsheimer moved, it is highly likely that he was aware of the ferment arising from the observations of the heavens occasioned by the arrival of telescopes in Rome.

Yet Elsheimer was painting a narrative, a moving rendering of a holy story. He was not simply illustrating scientific observations. His starry sky is an artful assemblage, using the new observations in the service of meaning. The Milky Way was known as ‘Jacob’s Street’ in the Middle Ages — it crossed from the ladder to heaven in Jacob’s dream. Against the lonely darkness threatening the three fugitives, the divine and immutable order of the bright heavenly bodies reassures us that Christ’s destiny will be fulfilled. Elsheimer brilliantly saw how new ways of seeing can be married to old revelations.

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