Vermeer's vision

Jan Vermeer's mastery of the use of paint was such that we see more in his pictures than is actually there. The painter achieved his illusions by using the picture as a field for perceptual exploration.

Martin Kemp

There are some artists whose works demonstrate the highest levels of intellectual deliberation, and yet for whom we have virtually no first-hand evidence of any framework in pictorial theory or the science of vision.

The absence of substantial written testimony for such 'intellectual' painters as Velázquez, Chardin and, above all, Jan Vermeer could simply indicate that the evidence has been lost. But it is more probably a reflection of a shared conviction that there were no contemporary theories of seeing and representation that could adequately describe the processes of perception and depiction they addressed in their paintings.

It has long been surmised that a number of seventeenth-century Dutch painters made use of the camera obscura as an aid to their supreme naturalism. Philip Steadman's research on a group of ten paintings by Vermeer set in the same space suggests that the painter set up the far end of the room as a walk-in 'optical chamber'.

Steadman's model of the room confirms the extraordinarily high levels of internal optical consistency in paintings such as *The Music Lesson* — even down to the penumbral fan of shadows beside the mirror on the end wall.

It seems likely that the artist laid down the basic disposition of the forms on the basis of their projection through an aperture in a partition on to a screen attached to the opposite end wall.

What the projected image could not do, however, was to tell Vermeer how to translate the effects into paint in such a way that the resulting image stood as a perceptual analogue of the real scene. Our immediate reaction is to think that Vermeer is a master 'describer', filling his scenes with meticulously rendered detail. But this is not the case. He had learnt, by a hard-won process of pictorial trial and error, that, when the artist wishes to cajole our perceptual system into collaborative action, less is definitely more.

The hues and tones of the generalized patches of paint — virtually abstract on close viewing — are pitched with such deliberative skill within the spatial framework that we irresistibly see more than is actually there.

It is like a very complex version of the optical illusions beloved of psychologists of perception. What Vermeer has discovered is that more compelling illusions can be achieved through encouraging our perceptual system to do the lion's share of the work than through the most niggling assertion of detail.

Yet there remains something uneasy in making such inferences about the artist's ideas from the pictures alone. There is, perhaps, one crumb of comfort. The great microscopist, Antoni van Leeuwenhoek — who somehow managed to see bacteria in a single-lens instrument — was an executor of Vermeer's will. What one would give to hear a conversation between the two great 'see-ers' on the business of human vision! □

Martin Kemp is in the Department of the History of Art, University of Oxford, 35 Beaumont Street, Oxford OX1 2PG, UK.

Jan Vermeer's *The Music Lesson*, c. 1670, in the collection of Her Majesty the Queen, Buckingham Palace, London.

THE ROYAL COLLECTION © 1998 HER MAJESTY QUEEN ELIZABETH II

TREVOR YORKE

Philip Steadman's model of *The Music Lesson*.

Nature © Macmillan Publishers Ltd 1998