

*Vision and Its Instruments: Art, Science, and Technology in Early Modern Europe.*  
Alina Payne, ed.

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Somewhat delayed since its inception in 2007–08, this volume is still a valuable contribution to what have become new trends in the cultural history of vision. The aim has been to move beyond the technical histories of optics and art, to focus on visual experiences of every kind and in every context, and to treat the multiple discourses on vision in a suitably multidisciplinary way. Here Alina Payne brings together an influential group of art historians and historians of science, philosophy, and literature to investigate both the instrumentality and the epistemology of sight. The eye is an instrument in itself and interacts with other instruments — mental, mechanical, and, of course, pictorial — and this “economy” (5–6) highlights a range of issues in the making of knowledge that overlapped the arts and sciences of the Renaissance.

The volume's starting points are two well-known and celebrated moments in the early modern history of vision — Brunelleschi's experiments with perspective and Galileo's with his telescope — but, in fact, its arguments are much more adventurous than this might suggest. It does not take a perspective-centric approach to the subject, nor does it allow eyesight's supposed privileges and benefits as a sense to dominate the historical agenda, as in so many studies that have seemed not merely to describe but to endorse the contemporary taste for naturalism and representational realism in images. Instead, it presents the knowledge acquired through vision and its instruments as complex, ambiguous, unstable, limited, vulnerable to challenge, and open to crisis and doubt — and, at the very least, always deeply inflected by value and affect. This makes the first two essays in the collection especially significant. On the subject of "Epistemic Images," Lorraine Daston reminds us again of the conceptual elements that inform epistemic values like "truth to nature" and lead, in the example of seventeenth- and eighteenth-century botanical images, to naturalistic representations that were very far from being records of the merely visible. Sachiko Kusukawa then illustrates this in the case of Conrad Gessner's plant drawings by showing his intention to depict specimens not as individuals but as complete objects. Such objects were read about as well as seen, exhibited generalized not local features, and belonged to *scientia* rather than *historia*.

The theme of challenges and limits to early modern sight is well treated in a second group of essays, which focuses on the issue of unseeability. There is a fascinating analysis by Frank Fehrenbach of that most paradoxical and elusive of conceptual and visual objects, the point (as evident in the work of Leonardo da Vinci), and an equally absorbing account by Payne herself of what happened when the Sieneese polymath Teofilo Gallaccini tried (and failed) to give visible expression to the kinetic abstractions of mechanics and astronomy using the human body as a paradigm. Somewhat of a showstealer is the brilliant essay by Carla Mazzio on the imperceptibility of air as a challenge to the instruments of eye, mind, and mechanics. At times this reads like a more general treatment of the history of discourses about air, but it is still an inspiring example of what can result when we consider vision as an object of itself across many contexts — in this case, those of art (Dürer), drama (Shakespeare), and prose (Donne).

Some of the later essays seem less effectively tied to the volume's themes and slightly looser in relevance, and occasionally one misses a sufficient awareness of the history of philosophy: for example, in Nicola Suthor's use of Descartes's blind man and Karin Leonhard's rehearsal of the by-now well-handled topic of "when and why color stopped being seen as an inherent quality of bodies" (191). However, Claudia Swan fully rescues the sense of what can be achieved by the new history of vision in a reprise of her long-standing interest in the early modern imagination as both a faculty and a source of images of real fictions, on the borderlines between perception and judgment. In all, this is a highly rewarding volume, brimming with exciting ideas and findings. It is also beautifully illustrated.

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