

surveillance in an absence of topographical signs. In an age of “worldly goods,” this place of few resources sparked remarkable feats of resourcefulness and endurance; a place of no landmarks, it challenged human navigational responses and inventiveness. Imagine the disorientation of humans in the absence of signs, with no material vestiges of history to mark the passage of time. No wonder the Arctic became associated with religious apostasy—the only signs that could penetrate were clothed in divine invisibility, akin to the Protestant doctrine of salvation through faith.

Following his introduction, Heuer provides a history of the Arctic from the antique to the Renaissance both as geographical place and as a conceptual space marking the delimitation of the known world. De Certeau once described narrative itself as a spatial practice; the evolving genre of travel and apodemic literature that Heuer draws from created both distance and proximation in the European response to the idea of the Arctic as well as to its materiality. In Chapter Three, he studies the ways European voyagers grappled with the vastness of the space through cartographic and metric approaches, seeking to know it in relation to human scale. Chapter Four, “The Savage Episteme,” considers the Anthropocene aspect: the human inscription, the acts of colonization, and the ways that places and people of the North were represented as curiosities and wonders to Europeans. Here, Heuer offers a fascinating analysis of the status of images in the age of iconoclasm, including a discussion of how the proliferation of images of “wild” indigenes from the Arctic awoke a residual familiarity with the myth of the European “wild man,” which “informed later narratives of can-do European identity, the myth of nationhood planted atop the wilderness.” He writes that “the “wild man,” in this sense, serves not just

as specimen from a far-off land, but as a conceptual tool to fashion—and blur—newly competing notions of the image at home” (119). In Chapter Five, Heuer re-contextualizes the 1555 “History of the people who live under the seven stars,” written by Uppsala bishop Olaus Magnus, a work which contains over four hundred woodcuts. These images, often cited as early evidence of ethnographic study, are read by Heuer as a defense of images themselves. Chapter Six is structured around a sailor’s account of the failed 1596 voyage of William Barents to find the Northeast passage. The crew was forced to over-winter in northern Russia, leaving behind some artifacts preserved in the ice, one of which was a sodden mass of over two hundred Flemish engravings, frozen into a single intractable block. Heuer uses this accidental survival, and the recent separation of the individual prints through modern conservation techniques, to think about cultural displacement. What purpose were the prints to serve in the Arctic? What does their retrieval mean in terms of their complicated history of travel and displacement? The prevalence of prints as an image medium is important, because as material objects they are both fixed and mobile, timeless time travelers (Heuer doesn’t linger on reproducibility). Finally, Heuer turns his attention to art made in the Arctic after it became accessible through the Northwest Passage; installations (including the ironies of Olafur Eliasson’s *Paris Ice Watch* of 2015 and its carbon footprint), photomontages, and acts of surveillance and intervention, leading us to the brink of digital posthumanism. These post-modern artistic meditations on the Arctic bear witness to a disappearing landscape never truly seen or comprehended visually, despite the history of images Heuer presents to us here.

Heuer offers us an extended, ekphrastic meditation on seeing and experiencing the Arctic through acts of representation inscribed on an

impossible landscape. His lucid and evocative writing leads us to newly contemplate the limited and limitless capacity of images and their failure to comprehend the precarious sublimity of ice. To return to Rabelais, Heuer repeats the story from Book Four of *Gargantua and Pantagruel* in which the pair sail through a zone so cold that words are frozen in the air. Clattering to the deck, the words melt into voices and battle cries from the past, their materiality transformed to sound, rendering the words themselves remnants of a vanishing written and contingent language (164–169). This is what Heuer means by the “end of the image,” the point at which the legible image—as diagram, landscape, portrait, print—realizes it cannot convey the very thing it intended to explain. ¶

Sally Hickson is Associate Professor, Art History, in the School of Fine Art and Music at the University of Guelph.  
—shickson@uoguelph.ca

---

Herbert L. Kessler and Richard G. Newhauser, eds., with the assistance of Arthur J. Russel  
*Optics, Ethics, and Art in the Thirteenth and Fourteenth Centuries: Looking into Peter of Limoges’s Moral Treatise on the Eye*  
Studies and Texts 209; Text Image Context: Studies in Medieval Manuscript Illumination 5  
Toronto: Pontifical Institute of Mediaeval Studies, 2018  
226 pp. 49 colour and b/w illus.  
\$ 95.00 (cloth) ISBN 9780888442093

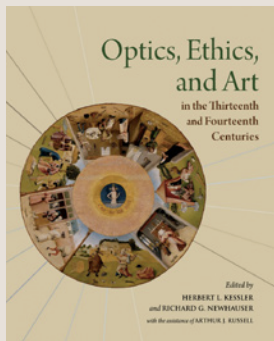
Kayoko Ichikawa

---

This volume of nine essays edited by Herbert L. Kessler and Richard G. Newhauser examines the relationships between the study of optics, theology, and the visual arts through analyses by historians of religion, science, literature, and art. This important volume emerged from a symposium on “Science, Ethics, and the Transformations

of Art in the Thirteenth and Fourteenth Centuries” held at the Clark Art Institute, Williamstown, MA, on September 28, 2013. It is dedicated to Samuel Y. Edgerton, whose studies of linear perspective in the Renaissance contributed to our general understanding that the studies of ancient and Arabic optical theories transformed the pictorial space of Western art at the turn of the thirteenth century and that Giotto can be credited with the first step towards such transformation. However, the volume provides a more complex view of the impact of new science on the visual arts through its study of Peter of Limoges’s *Moral Treatise on the Eye*, which has recently been made widely accessible thanks to the English translation by Newhauser (2012).

As Newhauser explains in Chapter One, Peter of Limoges (d. 1306) was a secular master at the Sorbonne who, while he was interested above all in pastoral theology, showed no interest in taking advantage of an ecclesiastical career, but rather devoted himself



to the reformation of Christian education. In this connection, he explored a wide range of topics from natural science to the liberal arts. *The Moral Treatise on the Eye* (*Tractus moralis de oculo*) was his major work. Composed in Paris between 1275/76 and 1289, it was a handbook for preachers which played an important role in bridging science and homiletics: it interpreted the new science of Perspectivist

optics, developed most notably by the Franciscan Roger Bacon (d. 1294), inspired by Alhacen (Ibn al-Haytham, 965–1040), and adopted it in terms of Christian ethics and moralization to render it “fit for use in the pulpit” (4), thus making scientific knowledge accessible to a much wider audience, including artists. Peter’s contemporary sources, including Bacon, were not acknowledged, although Newhauser demonstrates that Peter probably even borrowed from a vernacular text on erotic love by Richard de Fournival, amending it to make it a fit subject for sermons. His treatise became a bestseller, and 219 manuscripts, with evidence of many more attested copies, still exist. It was widely circulated in Europe during the thirteenth, fourteenth, and fifteenth centuries, and printed in Latin and Italian editions before the turn of the sixteenth century.

The question of how we see, which runs throughout this volume, had been a theological concern from the time of Augustine of Hippo (d. 430), whose three modes of seeing (corporeal, intellectual, and spiritual) are also integrated into Peter’s inventive treatise. Carolyn Muessig demonstrates in the second chapter how medieval sermons, the most widely accessible form of mass communication, connected seeing and sight to salvation, and “encouraged listeners to establish a sort of mutual gazing by looking upward in a state of prayerful love in order to catch God’s attention” (18). Her examples include the Augustinian priest Jacques de Vitry (d. 1240); the Franciscans Bonaventure of Bagnoreggio (d. 1274) and Ubertino da Casale (d. 1329), both preaching on the stigmatization of Francis of Assisi (d. 1226); and the Observant Dominican Tommaso Caffarini (d. 1434) preaching on Catherine of Siena (d. 1380). The effort to understand “how people could see God as well as be seen by God” (23) was widely shared among various theologians. Muessig places Peter’s treatise in this broader intellectual context: he presented “a

scientific explanation of the way optics work in an attempt to encourage the individuals to look at and contemplate the dominical wounds, which when impressed on the eye of the mind could lead to conformity to Christ” (25).

The volume then moves on to linking optics and sermons with art. Donal Cooper points out in Chapter Three that it is hard to pin down the precise modes of transmission of optical theories to the paintings of Giotto and his Tuscan contemporaries, although comparative studies on Dante indicate that up-to-date optical thought was in circulation in somewhat fragmentary and diluted fashion in Tuscan towns (31). A few examples of mendicant sermons, a probable vehicle for dissemination of new ideas, incorporated contemporary debates on optics and vision; they nevertheless do not demonstrate direct knowledge of Peter’s treatise. Building on Michael Baxandall’s claim in his *Painting and Experience in Fifteenth Century Italy: A Primer in the Social History of Pictorial Style* (1972) that preachers and pictures took notice of each other in the Quattrocento, Cooper introduces recent art historical studies on *tramezzo* (rood screen) imagery to demonstrate how pictorial innovation in the Trecento and preaching were physically juxtaposed in mendicant churches: some of the monumental Tuscan panel paintings in the years around 1300, including Giotto’s famous painted crucifix in Santa Maria Novella in Florence, would have been placed above *tramezzi* equipped with pulpits from which friars preached. Art would have thus been “an insistent presence, framing the preachers’ performance and the laity’s reception of their words” (45). In the fourth chapter, Aden Kumler introduces two illuminated manuscripts from the fourteenth century to explore how the medieval lay audience, surrounded by all kinds of novelty of aesthetic pleasure such as hocketed songs or buttoned robes, were encouraged to improve their eyes and ears for moral reasons, so that they could interpret works of art and culture not only in sacred space

but also in secular settings. This demanded “a kind of Christian connoisseurship” (58).

In order to draw moral lessons from the science of optics, Peter of Limoges used abundant exemplary narratives. In Chapter Five, Jacques Berlioz provides a systematic survey of Peter's copious use of quotations, comparisons, and exempla from every genre, not limited to those dedicated to the eye and vision, to appeal particularly to students and prelates. An example that is of interest for art historians is his original narrative that criticizes prelates and clergymen whose eyes are weakened; they are therefore worse than the laity, and Peter's visual metaphor for this is a lady with the most beautiful visage but with her back decayed and crawling with worms, who reveals herself as the Mother Church. Berlioz shows how this resonates with the sculpture of the Tempter on the west façade of Strasbourg Cathedral, although he does not discuss whether the image precedes the text or vice versa. Peter of Limoges could seamlessly weave scientific, moral, and narrative discourses, and this was what made his treatise a successful theological instrument. Larry Scanlon in Chapter Six acknowledges the treatise as “breathhtakingly ambitious in its synthesis of scientific learning with pastoral, ecclesiological, and exegetical traditions” (86). Nevertheless, Scanlon points out that Peter treats optics as an autonomous body of knowledge and his work ends suspended: Perspectivist science can suggest spiritual dimensions but the Scripture places a strict limit on natural philosophy.

The next two chapters challenge the persisting assumptions of modern art history. In Chapter Seven, A. Mark Smith demonstrates that the difference in artistic styles between an aniconic Islamic art and pictorial Western art characterized by linear perspective did not result from Latin

scholastics' radical reinterpretation of Alhacen's theory, as Hans Belting argued in his *Florence and Baghdad: Renaissance Art and Arab Science* (trans. Deborah L. Schneider, 2011). The scholastics' interpretation was true to Alhacen's original pictorial theory, which explains that seeing occurs through a three-stage process of sensation, perception, and conception, followed by cognition: seeing meant precisely the same thing in both cultures. What, then, can be an alternative way to explain the evolution of perspectival space in Western art? In Chapter Eight, Christopher R. Lakey emphasizes the role of medieval relief sculpture in the history of perspective by critically examining and expanding on Erwin Panofsky's teleological view in his 1924 *Perspective as Symbolic Form*. Although Panofsky adopted Albrecht Dürer's definition of perspective as “seeing through,” which was based on Leon Battista Alberti's notion of a window-like picture plane, he also acknowledged another conception of perspective: to see something clearly under certain viewing conditions. Lakey argues that this is also applicable to medieval sculpture. His examples demonstrate that the sculptors knew how to apply optical corrections and perspective effects at least from the twelfth century, before the circulation of Perspectivist optics, and sculpture was most probably used by painters including Giotto as a model for spatial and tactile refinements.

The volume concludes with an essay by Kessler, who invites us to exercise the modes of seeing laid out by Peter of Limoges in looking at medieval art. Peter's treatise rarely refers to actual works of art, but it helps modern art historians understand fourteenth-century artists' “experimentation to render the sacred in optics-based styles” (140). Drawing on examples from fourteenth-century Prague including the Madonna of Most, which features a tromp l'oeil lattice on the back of the panel, Kessler demonstrates how this device of pictorial framing engenders

a process of spiritual seeing, working as a reminder that a painting is only a work of art but can also be an oblique reference to the direct vision of God.

The volume as a whole provides us with a much better perspective from which to look at medieval art. In contrast to Holly Flora's recent publication *Cimabue and the Franciscans* (2018), which emphasizes the role of the Franciscan Order in inspiring the artistic innovations in the late thirteenth century, this volume provides a much more complex view of the impact of optical theories on the visual arts. Although it is likely that the Franciscan scholars played a leading role in developing the interest in optics, especially in order to explain their founder's miraculous stigmatization, their knowledge was based on a variety of grounds. Muesig explained that Bonaventure borrowed from Victorine and Cistercian thoughts to describe mutual gazing with God, which itself was a shared concern among theologians regardless of their affiliation. Moreover, considering how carefully the new scientific knowledge was handled by theologians, as demonstrated by Scanlon, it becomes even more difficult to prove that Perspectivist optics were immediately adopted by artists to prompt innovation in Western art in the thirteenth century—a point which could have been emphasized better in the volume. Lakey's convincing observation also allows us to attribute Giotto's spatial naturalism more to contemporary sculptural practices than to his contact with the Franciscans. The question of whether Peter of Limoges's treatise had a direct impact on specific works of art remains unanswered. More importantly, this volume encourages us to reconsider how text and image mutually developed within a shared intellectual context to which the erudite secular master belonged. ¶

Kayoko Ichikawa is the Japan Society for the Promotion of Science Overseas Research Fellow at the University of Fribourg, Switzerland. —kayoko.ichikawa@unifr.ch