Two-Point Perspective

DAVID J. ROXBURGH ON HANS BELTING'S *FLORENCE AND BAGHDAD*

***FLORENCE AND BAGHDAD: RENAISSANCE ART AND ARAB SCIENCE*, BY HANS BELTING**, TRANSLATED BY DEBORAH LUCAS SCHNEIDER. CAMBRIDGE, MA: BELKNAP PRESS OF HARVARD UNIVERSITY PRESS, 2011. 312 PAGES. $40.

IN HIS LATEST BOOK, published in German in 2008 and recently translated into English, Hans Belting turns to the invention of perspective and the consequences of its application in Western painting from the Renaissance onward. Belting, one of the foremost historians of medieval and Renaissance art, has published well outside his area of specialization before, but here he ranges especially far afield. His attempt to trace perspective to its roots is accompanied by a surprising degree of engagement with the art and culture of "the East," a territory that is, for most scholars of Western aesthetics, both literally and metaphorically foreign. Belting is aware of the serious pitfalls that face the historian of European art who seeks to undertake such a project, and though he is to be commended for facing these dangers, he does not overcome them.

Belting's argument proceeds from the observation that one branch of Arab science, which sought to combine the fields of physics and mathematics, developed a groundbreaking nonpictorial theory of vision based on geometric abstraction. Conceived by the polymath Abu Ali al-Hasan Ibn al-Haytham (965–ca. 1040), known in the West as Alhazen, and expounded in his tome *Kitāb al-Manāzir* (Book of Optics), this theory was based on a notion of visual reception by intromission: Rays of light were thought to radiate from points on the surface of a given object, converging in the eye as a form (*sūra*)—an inversion of the classical theory of extromission, which held that rays emerged *from* the eye. Alhazen also addressed what he called *khayāl*, the variability of an object's image according to changing conditions (of light, distance, viewing angle, etc.), as well as the relation between the specific qualities of a visible object and the mental representation of it, a function that he termed *ma'ānī*, and he ventured into a consideration of the psychological aspects of vision as well.

Florence and Baghdad only underscores the gulf between the two cities and their cultures and highlights what little they have to do with each other.

The Western reception of the *Book of Optics*, initially known in Europe by the Latin title *Perspectiva*, catalyzed the emergence of a pictorial theory that, as Belting puts it, "made the human gaze the pivotal point of all perception and enabled artists to reproduce this gaze in paintings." Belting attributes this watershed misreading to a transformation that occurred when Alhazen was translated—changes in vocabulary suggested to readers of Latin that the theory of vision must also entail a study of pictures. Building on *Perspectiva*, the mathematician Biagio Pelacani da Parma (d. 1416) paved the way for linear perspective by positing empty space as a geometric entity unto itself, a measurable volume (an innovation that was one of the necessary steps in arriving at the concept of the picture plane). As other scholars, including Martin Jay and David Summers, have noted, these changes coincided with a new attitude toward the image characterized by an increasing acceptance of naturalistic representation. To explain this passage, Belting summarizes the debate that took place in the thirteenth through early fourteenth centuries around divine versus human physiological sight, and about whether sensory, specifically optical, perception should be taken as a reliable source of knowledge. Could one equate the thing seen by the eye with that thing's true form? In the end, the argument in favor of empiricism won out—and pictures in the West came to be taken as equivalent to perceptual experience because of their apparent simulation of how a beholder saw the world.

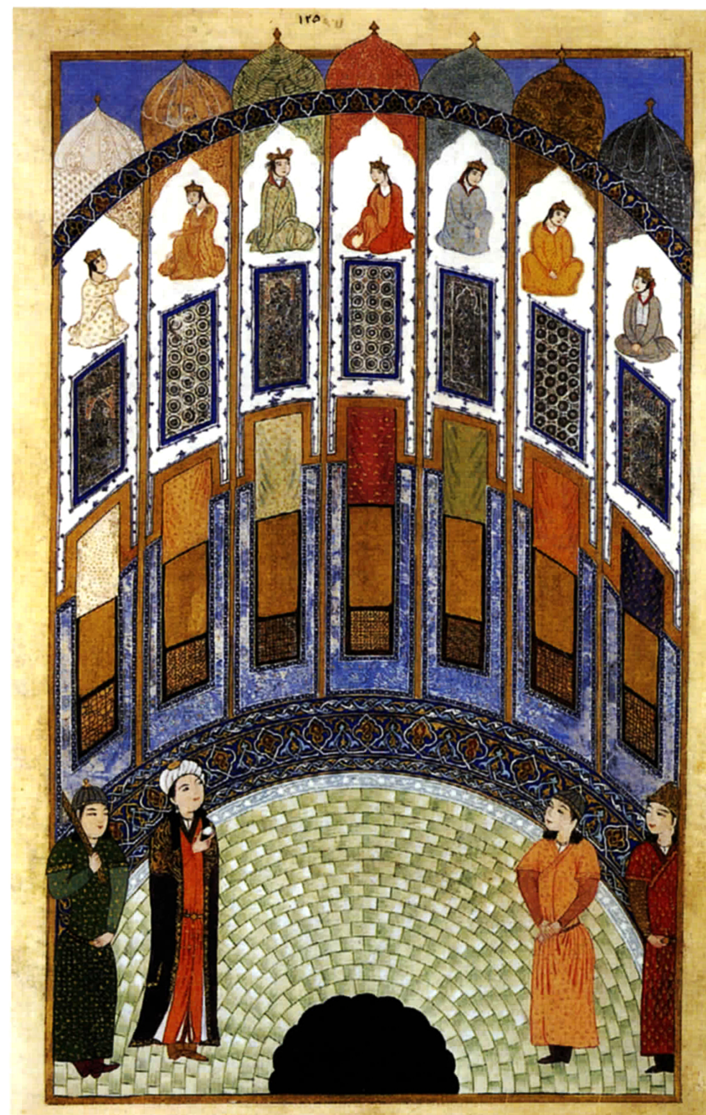
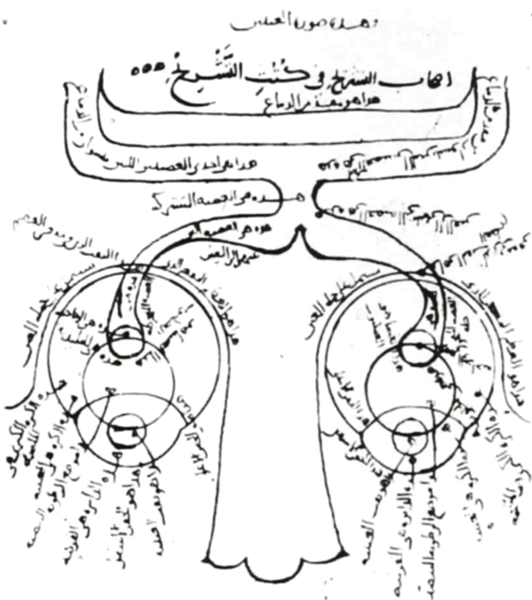


Illustration from Persian poet Nizami's "Haft Paykar" (Seven Beauties) (Shiraz, Persia, 1410–11).

In Belting's argument, the East did not experience the same shift but remained perpetually suspicious of the deceptive nature of human sight, while its art continued to be informed by mathematics and to favor abstraction. The concept of sight's deceptiveness, emphasized throughout the *Book of Optics*, was reinforced by the Muslim belief that as created beings, humans could not themselves become creators. To do so would be to risk usurping God's creative eminence. Arab culture, writes Belting, compensated for the absence of "pictures in the Western sense" with such "symbolic forms" as the *muqarnas*, an architectural-vaulting system predicated on the radial arrangement of cells of varying concavities and profiles, and *mashrabiyya*, wooden grilles or grates used to cover windows and other architectural openings. Geometry became a symbolic form by being a subject *of* representation, as opposed to a tool *for* representation as in the West; it was a "translation of mathematics into aesthetics." Belting fleshes out these ideas over the course of his first four chapters. In the last two, he focuses on the key perspectival theories of Filippo Brunelleschi and



From top: **Abu Ali al-Hasan Ibn al-Haytham's diagram of the eyes, from the oldest surviving manuscript of his *Kitāb al-Manāzir* (Book of Optics), 1083. Masaccio, *La Trinità*, 1427–28,** fresco, Santa Maria Novella, Florence, Italy.

Leon Battista Alberti, and discusses the works and writings of a series of artists and architects, including Lorenzo Ghiberti, Sebastiano Serlio, Leonardo da Vinci, and Jan van Eyck.

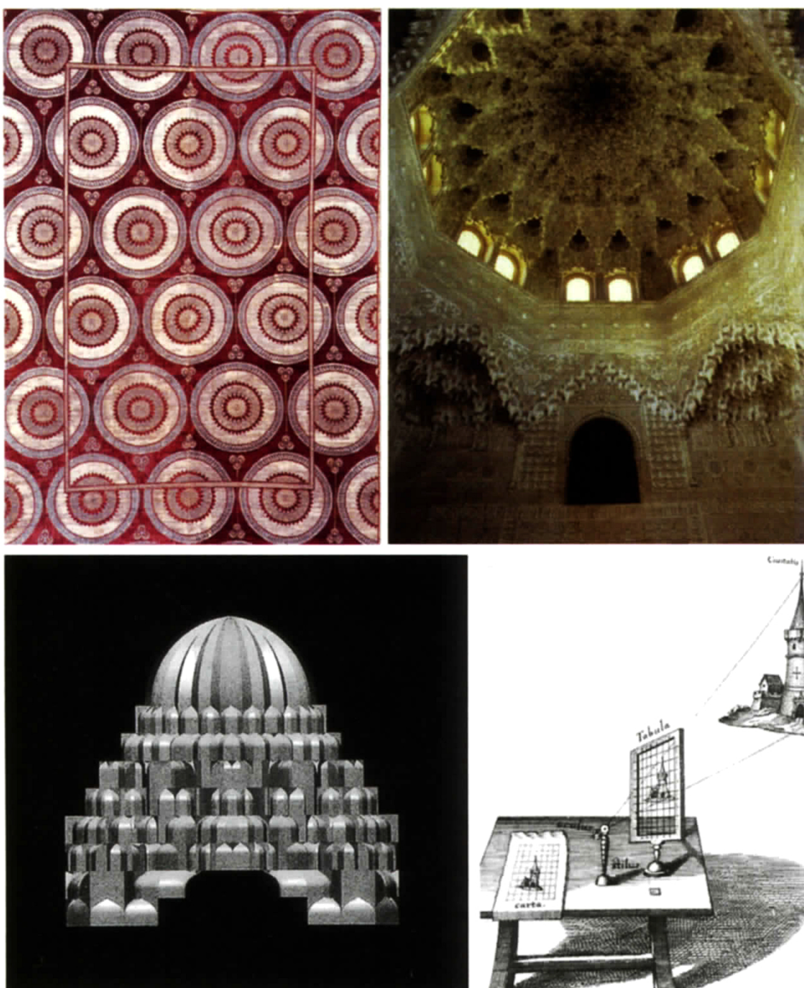
IN MANY RESPECTS, the book, especially its second half, presents a familiar narrative, illustrated by well-known examples. It is best left to specialists of Renaissance and post-Renaissance art history to debate the merits of Belting's assertions and interpretations and his adjustments to the work of earlier scholars of perspective such as Erwin Panofsky. For a historian of Islamic art, the primary task is to assess Belting's sustained juxtapositions of artistic traditions East and West. Although the comparative mode has been productively deployed before, most notably in art history by Norman Bryson in *Vision and Painting: The Logic of the Gaze* (1983), and in philosophy by François Jullien in *Le Détour et l'accès: Stratégies du sens en Chine, en Grèce* (Detour and Access: Strategies of Meaning in China and Greece, 1995), it has never before been applied so exhaustively to these particular historical crosscurrents.

Belting's move into such a comparative framework is ambitious and bold, as is particularly evident in the *Blickwechsel* ("exchange of glances" or "shift of focus") with which he ends each chapter: In each of these codas, he performs a rotation on the focus of the preceding chapter, looking at his topic from the other side of the cultural divide. But Belting's approach also poses the question of what one can reasonably expect from a scholar who might undertake such a cross-cultural investigation, given the high probability that expertise in one area will not be of equal depth in another. (Belting recognizes this problem but maintains, "The fact that [the book] was by necessity a difficult undertaking could not be an excuse for giving up before I had even started, nor could the question of expertise be allowed to stand in the way.") In any such endeavor, absence of training in the requisite research languages may force a greater emphasis on the secondary sources and makes it all the more essential that authors select judiciously from them. Yet there are numerous bibliographic lacunae in *Florence and Baghdad*. For example, Belting fails to cite Dimitri Gutas, whose nuanced and extensive publication on the Arabic translation of classical Greek works makes Belting's comment that the "contribution of classical Arab culture cannot be reduced to one of mere translation" look like a naive understatement.

At several points, Belting makes the politically astute, and sensitive, point that the purpose of his East-West comparisons is not to elevate one culture over the other, to "reinforce a colonial point of view," or to assert perspective as a norm and "label everything else as a deviation." He ends his book by echoing his earlier comment on expertise, writing that comparative studies like his are rare "perhaps because of the risks involved in crossing the boundaries of disciplines in which the experts on both sides tend to become defensive." In the last analysis, unfortunately, these sentiments come across as efforts to inoculate the book against criticism. Such good intentions are admirable but are frankly not enough.

Despite the avowed intellectual scruple of *Florence and Baghdad*, East and West do not receive equally nuanced considerations from Belting, and the characterization of Islamic art succumbs to an outmoded, albeit still pervasive, view traceable to the Orientalist scholarship of the nineteenth century. In this understanding, Islam's position with respect to images fosters aniconism, permits only non–optically naturalist images when and if images occur, and propels the ascendance of calligraphy and geometrically based abstraction, which succeed because they are supplementary to figuration, with its unbridled possibility. Such ideas and their causal chain might appear to be common sense, but they are as yet only speculations.

One could quibble about the essentialization inherent in recurrent, if convenient, phrases such as "Arab visual theory," "Middle Eastern way of thinking," "abstract spirituality of their culture," and "the Arab culture," given the extremely broad temporal span embodied in the examples of Islamic art and culture adduced by Belting, or even about the basic utility of the binary of "West" and "East" figured in the title *Florence and Baghdad*. As it stands, the book only underscores the gulf between the two cities and their cultures and highlights what little they have to do with each other. Belting offers a detailed teleology of historical developments in Europe, an intricate chronicle of generations of artists and their art from the Renaissance to post-Renaissance periods. By contrast, "the East" and "Arab culture" are presented via a sequence of temporally and geographically discrete *sondages*, the implication being that we readers can assume they're all connected, even if we don't know exactly how. Belting infers an unsubstantiated link, for example, between Alhazen's work on optics and the contemporaneous application of geometry to both architectural ornament and the regularization of Arabic script associated with the reforms of Abbasid vizier Ibn Muqla (d. 939). These developments occurred during the tenth and eleventh centuries and produced shared conceptions and formal traits of art and architecture across the Middle East that continued until the immediate aftermath of the Mongol conquests of the early 1200s. The aesthetics of art and architecture then gradually shifted in the Middle East, while the closest analogues to the region's pre-Mongol aesthetics seem to have lived on in the western Islamic lands. Is it proper, given this branching historical path, to claim a relation and continuity between Alhazen's theories and the late-fifteenth- through sixteenth-century Iranian scroll of geometric designs known as the Topkapi scroll, published and analyzed by Gülru Necipoğlu in 1995? The scroll figures prominently in Belting's book, but he does not consider its function as a design resource.



Clockwise from top left: **Silk, velvet, and silver thread wall hanging, Bursa, Turkey, ca. 1500**, 74 x 50¾". **Dome in the Hall of the Two Sisters, Alhambra, Granada, Spain, ca. 1230. Illustration from Robert Fludd's *Utriusque cosmi historia* (History of the Macrocosm and the Microcosm), 1618. Mohammad al-Asad, computer model of a *muqarnas* dome, 1995.**

The effects of Belting's historical "patches" and of his compressed, essentialized history of Islamic art in the face of manifold evidence of its infinitely complex variegation are serious enough, but one must also question the suitability of his comparisons. Why not compare painting with painting? That is, one wonders why he chose to compare painting and figuration in the West with geometry and abstraction in the East. Emphasizing geometry as a subject of representation in Islamic art in contrast to the instrumental function of geometry in Renaissance painting serves Belting's argument but diminishes the actual role and changing nature of pictorial images in the Islamic lands. Contra Belting, and contra the majority understanding of Islamic art, one must say that there *were* "pictures" in Islam, and not only that there were pictures but that there were many of them, and that they differed—that there is no readily apparent similarity between the wall paintings produced in the palaces of the eighth-century Middle East and the practice of oil painting under the Iranian Qajar dynasty through the early 1900s.

What's more, beyond any accounting of the "West" receiving the "East," there is a complicated story that could be told of the reception of European modes of representation at the Ottoman, Safavid, and Mughal courts of the 1400s through 1700s in the lands between the Balkans and India. This history is only briefly and incompletely addressed by Belting, which is too bad, because a comparative analysis of painting traditions of the fifteenth through eighteenth centuries in the West and East—that is, a comparison of painting with painting—might have been genuinely fruitful. Such an analysis, however, would demand a reckoning with Belting's reductive notion that in Islamic culture "pictures" did not exist in the world but only in the mind, as constructs or abstractions produced via the agency of the imagination and the senses. As Belting writes, "Overstating things a bit, one could say that in the Middle Eastern way of thinking a visual image meant a mental image *with which one sees*, and not one that is *before one's eyes*. It could not be made visible because it did not occur in the external world." But can a direct connection truly be demonstrated between Alhazen's theory and the actual practice of making pictures in Islam?

A DETAILED HISTORY of the conception and reception of images in Islamic art remains to be written, but recent work—combining the artistic evidence and a rich corpus of primary sources written in Arabic, Persian, and Ottoman Turkish—suggests a Neoplatonic theory of the image in post-Mongol painting from the mid-1300s through the early modern period. Rather than avoiding the issue of the image, artists and writers on art from Islamic lands directly confronted the topic of the legality of the image and its proper condition. There is also evidence that some historical viewers actually saw value in Western modalities of imagemaking. Writing about art at the Mughal emperor Akbar's court in the 1580s, the historian Abu al-Fazl remarked: "European masters express with rare forms many meanings of the creation and [thus] they lead those who see only the outside of things [*zahirnigahan*] to the place of real truth [*haqiqatzar*]" (the translation is Ebba Koch's). The closest one comes in Belting's book to these debates is in a consideration not of art history but rather of Turkish writer Orhan Pamuk's 1998 novel *My Name Is Red*. Outlined in the *Blickwechsel* that follows the first chapter's discussion of Western notions of perspective, the novel concerns an Ottoman artist who has learned European perspective technique and is murdered to prevent the spread of his forbidden knowledge. Pamuk's Orientalist trope of the illicit picture and the fear it arouses reinforces Belting's reductive and blinkered conception of Islamic art.

There is one passage in *Florence and Baghdad*, spanning the final *Blickwechsel* and the book's conclusion, that directly confronts the difference between perspectival and nonperspectival constructions of "the picture" (as a window with a static viewer set before it in the former case and as a multifocal composition that combines many viewing perspectives in the latter). Necipoğlu has described the nonperspectival geometric construction as an infinite isotropic space lacking a fixed viewpoint. But Belting's source here is Hamid Naficy, who is writing about the veil in contemporary Islam and using the Persian miniature painting as a heuristic to discuss what he describes as "the averted look," or the habit of constructing space so as to partition it into hermetic cells separating actors from one another. The transhistorical comparison drawn by Naficy dovetails with Belting's contention that the *mashrabiyya* "tames the gaze and purifies it of all sensuous external images through its strict geometry of interior light." The two worldviews are thus reduced to the active, gazing subject in the West and the passive, receiving subject in the East. This final set of suggestive cross-cultural comparisons makes the methodological problems Belting's latest project entails all the more apparent, and leads one to wonder why the book could not simply have been about Alhazen's reception in the West and what happened in European painting thereafter. In other words, one is left with the sense that, when it comes to the eradication of stereotypes and the elucidation of widely misunderstood histories and cultural practices, the question of expertise is perhaps more salient than ever. □

DAVID J. ROXBURGH IS PRINCE ALWALEED BIN TALAL PROFESSOR OF ISLAMIC ART HISTORY AT HARVARD UNIVERSITY. (SEE CONTRIBUTORS.)