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Drawing the Line, Dividing the Plane: Islamic Space and the Geometries of Ornament

[T]he locality where thinking takes place...is the paper on which we write.

– Wittgenstein, *The Blue and Brown Books*

Abstract: Two twentieth century artists responded strongly to the example of Islamic art: M. C. Escher and Henri Matisse. Escher found a model for his geometric play of dividing and filling the two-dimensional plane. Matisse discovered in Islamic ceramics and textiles a richer sense of space than Renaissance perspective and its model of the perceiving subject. According to art historian Jacques Schneider, "The rule Islamic art obeys is the one contained in Verlaine's phrase, '*rien qui pèse, rien qui pose,*' (nothing ponderous, nothing that poses)." It is a rule epitomizing the anti-perspectival and the nomadic. Perspective captures its objects in its grids and metrics, but the perceiving subject too is captured and pinned to a single point of view in a circumscribed space. For Matisse, the example of Islam, its play of unfolding, nomadic geometries of ornament, disrupts the tradition of perspective and opens the way to multiple spaces of perception.

I begin with an image (Fig. 1), one that I have followed—or, maybe it has pursued me—across several media. First, on a front page of the *New York Times*. Then, because I wanted a digital copy, as a downloaded image on my computer screen, and later edited in PhotoShop. Next, in the mirrors of a single-lens reflex in order to translate it into an analogue film slide, just in case a digital projector didn't show up, or didn't work.

What it shows are the "personal effects" of a U. S. Marine Staff Sergeant, what he had on him when he was killed in action in Baghdad in April 2003. There are the inevitable dog tags. And the watch, with its double face—one set to Baghdad time, the other set to New York. In the upper left corner is a coin, a peso from the Dominican Republic. There are the two bottle caps: a partially hidden, familiar Pepsi cap. The other one (Fig. 2) is a Pepsi cap too—that's what it says in Arabic at the top: "Pepsi." Below that it says where the bottling plant is: Kirkuk. His name was Riayan Tejada. He was granted U.S. citizenship posthumously.



Figure 1

The objects tell a story of divided geographies, mixed cultures, the way a war gets fought, and by whom. To read them, though painful, is fairly straightforward, even routine. We're used to reading objects this way, reading them semiotically, as signs. But they are signs in and of a medium—newspaper, computer screen, mirror, projection screen—each unique in its materiality and its mode of dissemination—except that they all have one thing in common: they are all surface media, media of the two-dimensional plane. Islamic art has a lot to say about this topic, and for this paper, I want to look at two 20th century artists who both responded strongly to what they found, as conditions of possibility, in the arts of Islam: M. C. Escher and Henri Matisse. At the end I will recruit a remarkable passage in Kant's *Critique of Pure Reason* in order to draw some conclusions.



Figure 2

Consider a fourteenth-century wall painting (Fig. 3) in the Alhambra, the Hall of the Ambassadors. Even if we didn't know that it was produced in Moorish Spain, we might very well identify its geometric design with an Islamic aesthetic, an aesthetic that has been widely admired and copied for centuries. M. C. Escher, the twentieth-century Dutch graphic artist, visited the Alhambra twice early in his career. In 1936 he brought home sketches of Alhambra designs and soon he was making prints in his now familiar geometric style, as in the 1942 print titled "Fish" (Fig. 4). Although there are obvious differences between the Alhambra wall and Escher's "Fish," they share the same four-color scheme of olive green, slate blue, orange ochre, and black (Fig. 5) while the elements of Escher's four-fold symmetry bear some resemblance to the elements of the Alhambra's three-fold symmetry. No doubt it is just coincidence, but more of this presently.

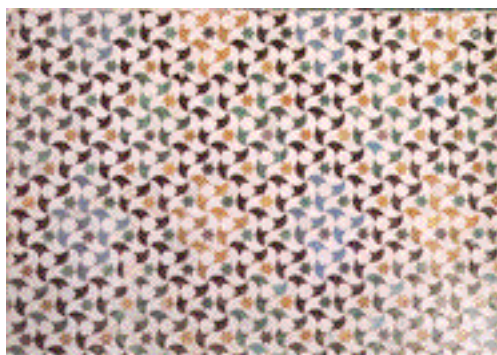


Figure 3



Figure 4



Figure 5

There are two points to consider in Escher's experience of the Alhambra and its geometrically patterned ornamentation. First, Escher understands that the Moors, like the Jews,

observed a prohibition against representing human and animal forms.¹ Yet, in practice, the Islamic prohibition is focused on art made for official, religious settings and occasions, while secular art forms are widely ornamented with stylized, abstract animal figures: as in a late-sixteenth century Ottoman Turkish bowl and its arrangement of hunting dogs and prey (Fig. 6), or a fourteenth century carpet, also probably Turkish, with its stylized dogs (Fig. 7). That these figures, in their different ways, are abstract and stylized for ornamental effect is an important sign of their participation in an Islamic aesthetic: there is no attempt to produce a naturalistic image of the animal or of the space occupied by the animal body. The surface of the dish, like the surface of the carpet, is a surface of perception that avoids suggesting anything behind or below or beyond it, and the figures represented on it are *figures of that surface*. This point—that they are figures of, as well as on, the surface—is one that I will emphasize further.



Figure 6



Figure 7



Fig. 7 (detail)

It is, by the way, precisely these particular art forms—ceramics and textiles—historically disregarded as minor arts, that inspire Henri Matisse early in his career. “Through its accessories,” Matisse says, referring to Islam’s textiles and ceramics, “this art suggests a larger and truly plastic space” (Fig. 8). In the surfaces of wall tiles and dishes, carpets and wall-hangings (Fig. 9), he finds access to a richer sense of space than that afforded by Renaissance perspective and its model of the perceiving subject. As noted by art historian Jacques Schneider, “The rule Islamic art obeys is the one contained in Verlaine’s phrase, ‘rien qui pèse, rien qui pose,’ (nothing ponderous, nothing that poses).” It is a rule epitomizing the anti-perspectival and

¹ Escher cites the Second Commandment against the making of graven images. However, the Second Commandment is not part of Islamic tradition, at least not directly. Although Moses is an important figure in the Qur’an, the Ten Commandments are not quoted as part of its story of divine revelation. (The only mention of the Commandments in the Qur’an occurs in Surah 7:145: “And We ordained laws / For him in the Tablets / In all matters.”) Instead, strong statements of a ban on representing human and animal forms appear in the Hadith, or traditions relating to the Prophet Mohammed, which are gathered into a supplement to the Qur’an called the Sunna. There it is declared that picture makers, or *musawwiroon*, will be punished at the last judgment, when it will be demanded of them to give life to their pictures, which they will be unable to do. In the Qur’an, one of Allah’s holy names is *Al-Musawwir*: maker, form-giver, creator (59:24), and it would be presumptuous of any mortal to think of assuming this role.

the nomadic. Perspective captures its objects in its grids and metrics, but the perceiving subject too is captured and pinned to a single point of view in a circumscribed space. For Matisse, the example of Islam, its play of unfolding, nomadic geometries of ornament, disrupts the tradition of perspective and opens the way to multiple surfaces, multiple flows of perception.



Figure 8



Figure 9



Figure 10



Figure 11

Consider, for instance, the frequent motif in Matisse's interiors, of an open window or door—something a Renaissance artist would surely exploit to suggest perspective. Here in the 1911 “Interior with Eggplants” (Fig. 10), the flowing assemblage of visual planes—wall, carpeted floor, door, screen, mirror—all appear to be in play together on the pictorial surface, an effect re-emphasized in a watercolor version, where Matisse repeats the design motif of carpet and wallpaper as an ornamental frame. Then, from much later, the 1947 painting, “The Egyptian Curtain” (Fig. 11), offers the visual wit of juxtaposed surfaces—window, curtain, and still-life—and the undecidability of their status as surface ornament or 3-dimensional representation. The range of Islamic art, and the conditions of artistic possibility that it suggested to Matisse, includes the great Persian miniatures such as one by the late 15th-century master, Bizhad (Fig. 12), titled “The Seduction of Yusuf” (or Joseph), with its many doors and its oddly oriented stairs emphasizing its status as the ornamental surface of the page. I like to think that the house depicted here had Escher as its architect and Matisse as its interior designer.



Figure 12

And this brings us back to Escher again, and the second point about his experience of the Alhambra. The first point was Escher's understanding of Islam's prohibition of images of human and animal forms. The second is the way he speaks of its art as a geometrical procedure of “filling” or “dividing” the plane. This means tiling—or “tessellating”—the surface in a regular, often intricate pattern that leaves no gaps. Geometrical analysis speaks of the *fundamental region*, the one motif that is repeated over the entire surface—a tile in the form of a square, a pentagon, a hexagon, or the like. For the Alhambra wall painting, here is a guess (Fig. 13), a fundamental region in the shape of a hexagon, mapped over the surface, each one containing a three-bladed figure, with each of the six corners centered on a small white hexagon or a six-pointed star.



Figure 13

Color plays a role, too. In one section (Fig. 14) four blue triangles—these with white hexagons at their centers—form a vertical diamond. In another (Fig. 15), it's four orange triangles. And in a third they're green (Fig. 16). Black triangles are different (Fig. 17): they come in groups of five, four in an upright rectangle, the fifth in the center. But look again. There is another group, formed—like the earlier ones—in a vertical diamond. But now the triangles are white, with six-pointed stars at their centers, and in the three previous figures (14-16), too, patterns of white triangles are in play. Earlier, when I compared the Alhambra wall with Escher's "Fish" graphic, I said they shared the same four-color scheme of olive green, slate blue, orange ochre, and black. But, in fact, on the Alhambra wall it is a five-color scheme—green, blue, orange, black, and white (or off-white).² The surface of the wall is plainly, visibly part of the material of the design; or, rather, the wall, its surface, its evocation of the plane, is made visible by the design. Like the dish and the carpet earlier, the wall is a surface of perception that avoids suggesting anything behind or below or beyond it, and the figures represented on it are *figures of that surface*.



Figure 14



Figure 15



Figure 16

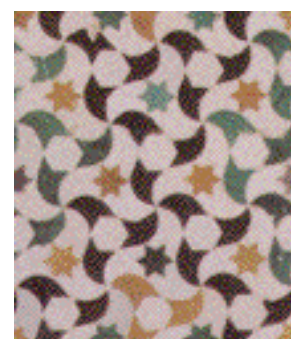


Figure 17

I would like, now, to wind this up with the help of Immanuel Kant's *Critique of Pure Reason*.³ In a section added to the second edition of the *Critique*, Kant argues that the inner sense

² In the full wall painting (Fig. 3), one can see a further visual complication, a "neon" effect in the blue, green, and orange patterns, an illusion of color spreading between separate triangles.

³ I can't honestly say I'm a Kantian, either by inclination or by expertise, and yet in a spring 2004 faculty/graduate-student reading group we read the *Critique* with what I felt were profoundly interesting results. A main question for us was how we were to understand the Refutation of Idealism, the section added by Kant to the 1787 second edition in order to answer criticism of his work as just a "freshening up" of Berkeley's idealism. Earlier in the *Critique*, in the Transcendental Aesthetic, Kant asserts the priority of the inner intuition of time over the outer intuition of space, grounding the conditions of the possibility of self-consciousness in an *a priori* intuition of temporality as successive change. But in the Refutation of Idealism, apparently in an effort to sharpen the difference between his philosophy and Berkeley's, Kant reverses the priority.

(Thanks to William Egginton, Martin Häglund, and David Johnson, colleagues and members of the reading group, for their generous guidance and advice; and to invitees, Peter Gilgen [Cornell U] and Willi Goetschel [U of Toronto], for their superb presentations at the final meeting of the reading group in April 2004.)

of time is dependent on the outer sense of space, because change can be cognized only in relation to something that is unchanging, something permanent, and that, for Kant, is locatable only in an outer intuition of space.

[I]n order to make even inner alterations thinkable, we must be able to grasp time, as the form of inner sense, figuratively through a line, and grasp the inner alteration through the drawing of this line (motion), and thus grasp the successive existence of ourselves in different states through outer intuition. (B292, Guyer and Wood trans.)

There is something astonishing about this passage, and something new that goes beyond simply a reversal of Kant's earlier prioritizing of inner over outer, temporal over spatial, intuitions. What's new is the metaphor of the line, explicitly represented as a *figure*. Kant is sparing in his use of metaphor, and this figure of the line demands attention. The line is doing a lot of work at this moment, but it is very ordinary work—the work we do all the time without noticing, and we do it because without our doing it thought would be impossible, or, rather, unrecognizable, another species of thought altogether. For there is hardly anything that we speak of ordinarily that we don't treat, at least metaphorically, as a form of dynamic motion in space. Thus, here, the very idea of thought is a form of grasping, a taking hold of, expressed in Kant's German by the verb *fassen*. So, time and the successive existence of ourselves in time are made comprehensible, graspable, *faßlich*, by the figure of a line in space.

But there is more. Kant uses the figure of the line not just perceptually but procedurally as well. Time is grasped as a line, but the continuing existence of one's self in time is grasped as *the act of drawing a line in space*. And what this means is that the intuition of inner time and the intuition of outer space are both realized—both made graspable, made *faßlich*—by the embodied, real-time act of drawing the line, writing the line, filming or sculpting or computing the line. Of course as intuitions, Kantian space and time are not objects of perception but conditions of the possibility of perception. But without an act—or, indeed, a performative—of mediating figuration there can be no possibility. Knowing, then, is not just knowing *per se* but also acting in the intuited space/time of thought that is also the space/time of perception and representation. I have no idea if this is what Kant thought he was saying, and yet his metaphors suggest it. And this may just be the Kant that Wittgenstein read, the Kant we can hear echoed in Wittgenstein's remark that “the locality where thinking takes place...is the paper on which we write.” Which is the canvas on which Matisse paints (Fig. 18), the paper on which Escher draws (Fig. 19), the wall on which the anonymous artisans of the Alhambra render their ornamental figures (Fig. 3)—figures on a surface that are, at the same time, *figures of the surface*.



Figure 18



Figure 19



Figure 3

Afterword (omitted in 20 minute presentation):

The photo of Riayan Tejada's personal effects (Fig. 1) was one of seven published together in the *New York Times* in May 2004.⁴ There was one of a young widow sitting in a garage, in Buffalo, on her husband's Harley Davison. Another of a Wisconsin father raising the Marine and U.S. flags, as he does every day, on a flagpole he put up in his back yard as part of a memorial to his son. Still another of a mother in Michigan: when a returning soldier brought her a bag of her daughter's unwashed laundry, she opened it and breathed in her daughter's scent one last time. The photo included here is the exception. No one's image appears in it—only the “effects,” the traces. But is it posed like the others? Or are things just as they were when the box was opened? It's impossible to tell. The camera angle—squarely perpendicular to the opening of the box—is deliberate. As is the lighting, which glances in from the left, imparting contour and solidity to the objects. Across several media—newspaper, computer screen, photo-slide, and the page of this essay—these objects appear as features of a surface that looks back at us, calling forth in us an ethics, a politics, an aesthetics. Perception, judgment, and feeling arise from this dialogue between us and the surface, according to a premise explored by Oleg Grabar in *The Mediation of Ornament*, a book devoted to Islamic art, and to the geometrically designed, ornamentally scripted surfaces of Islamic space.⁵ A fundamental lesson of Islamic art and its intensely ornamented surfaces—a lesson assumed by this essay—is that depth is not a given but the effect of a dialogue with the surface. We grasp the effect of Riayan Tejada's personal effects because they have been framed by a narrative of war, cultural difference and loss, a narrative in which we as citizens are unavoidably implicated. And we grasp their effect also because they have been framed as figures of a deliberately ornamented surface.

Image credits:

- Figures 1, 2. Fred R. Conrad/*The New York Times*. Sunday, May 30, 2004. Section 4, Week in Review (1, 10). Thanks to Carine Mardorossian for help with Arabic scripts.
- Figures 3, 5 (left), 13-17. Oleg Grabar. *The Mediation of Ornament*. Princeton: Princeton UP, 1992. Plate 12 (detail). Granada, the Alhambra, Hall of the Ambassadors, 14th century.
- Figures 4, 5 (right). Mark Harden's Artchive. <http://www.artchive.com>.
- Figures 6, 7. The Metropolitan Museum of Art. <http://www.metmuseum.org>.
- Figures 8-9, Pierre Schneider. *Matisse*, Trans. Michael Taylor and Bridget Strevens Romer. New York: Rizzoli, 1984. “The Moorish Screen,” 1921-22 (p.167); “Oriental Rugs,” 1906 (p. 157);
- Figures 10-11. ArtSoho. <http://www.artsoho.net/matisse3.htm>. “Interior with Eggplants,” 1911; “The Egyptian Curtain,” 1947.
- Figure 12. Blair, Sheila S. and Jonathan M. Bloom. *The Art and Architecture of Islam 1250-1800*. New Haven: Yale University Press, 1994. Fig. 85.
- Figure 18. *Matisse, lignes et couleurs du Maroc*. Livret Jeune (n.d.). Self-portrait, 1912 <http://www.imarabe.org/temp/activitejeunes/sdl/publications/livrets/matisse.pdf> (page 7).

⁴ *New York Times*. Sunday, May 30, 2004. Section 4, Week in Review (1, 10).

⁵ Oleg Grabar. *The Mediation of Ornament*. Princeton: Princeton UP, 1992.

Figure 19. George A. Escher, “M. C. Escher at Work,” in *M. C. Escher: Art and Science*. Edited by H. S. M. Coxeter, et al. Amsterdam: Elsevier Science Publishers, 1986. Photograph: “M. C. Escher in his Studio in Baarn, September, 1958.”