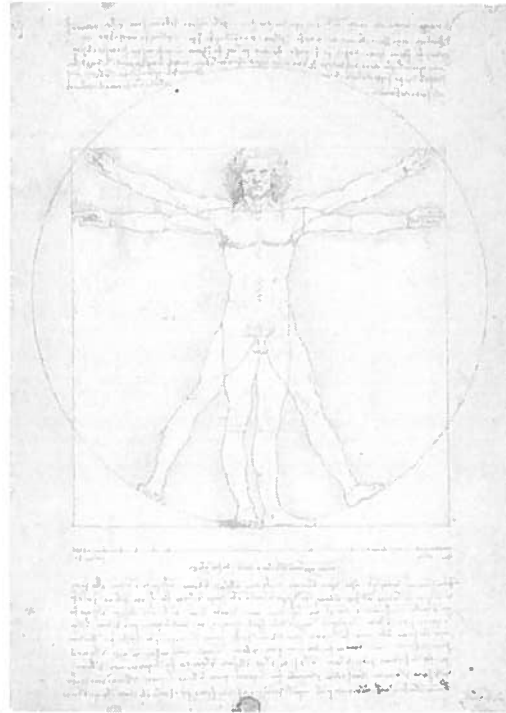


# The Principles of Design



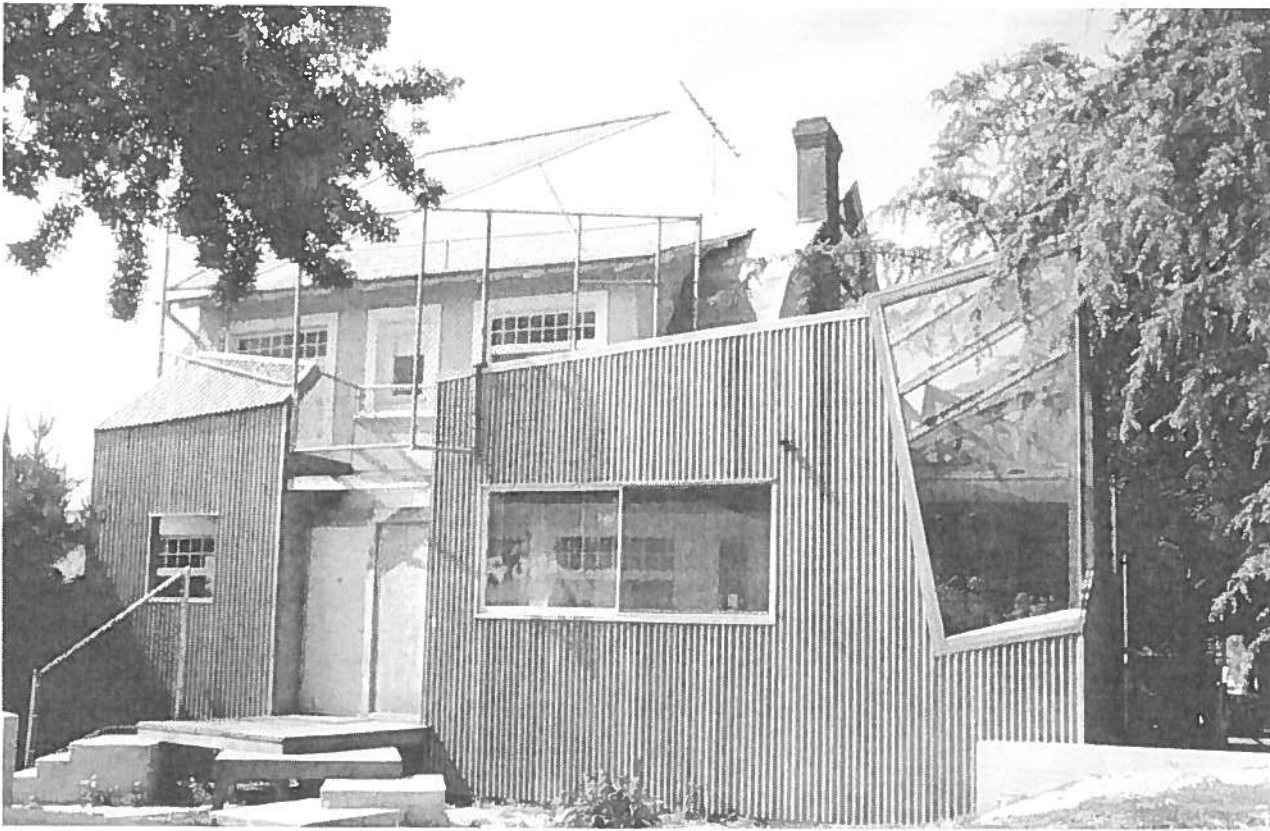
**Fig. 181** Leonardo da Vinci, *Study of Human Proportion: The Vitruvian Man*, c. 1492, pen and ink drawing

Photo credit: Cameraphoto Arte, Venice / Art Resource, NY / Academia, Venice, Italy

The word *design* is both a verb and a noun. To design something, the process is to organize the formal elements that we have studied in the last four chapters—line, space, light and color, texture, pattern, time and motion—into a unified whole, a composition or design. Design is also a field of study and work within the arts, encompassing graphic, fashion, interior, industrial, and product design. The design field is the subject of Chapter 16; here we will focus on design principles that can apply to all works of art.

The principles of design are usually discussed in terms of the qualities of balance, emphasis, proportion and scale, rhythm and repetition, and unity and variety.

For the sake of clarity, we must discuss these qualities one by one, but artists unite them. For example, Leonardo's famous *Study of Human Proportion: The Vitruvian Man* (Fig. 181) embodies them all. The figure is perfectly balanced and symmetrical. The very center of the composition is the figure's navel, a focal point that represents the source of life itself, the fetus's connection by the umbilical cord to its mother's womb. Each of the figure's limbs appears twice, once to fit in the square, symbol of the finite, earthly world, and once to fit in the circle, symbol of the heavenly world, the infinite and the universal. Thus, the various aspects of existence—mind and matter, the material and the transcendental—are unified by the design into a coherent whole.



**Fig. 182** Frank Gehry residence, Santa Monica, California, 1977–78.

Photo: Tim Street-Porter.

By way of contrast, architect Frank Gehry's 1977–78 redesign of his house in Santa Monica, California (Fig. 182), seems anything but unified. He surrounded the original structure with an outer shell constructed of plywood, concrete blocks, corrugated metal, and chain-link fence. The result shocked and bewildered his neighbors. They could not understand what principles of design had guided the architect in both his choice of materials and their construction. To many, it seemed that he had destroyed a perfectly good house, and in the process destroyed the neighborhood.

Certain principles of design did, of course, guide Gehry. A closer look at the house reveals that he has in fact used many of the traditional principles of design—most notably rhythm and repetition, balance, scale and proportion, and unity and variety—all of which we will consider in more detail later in the chapter. But for now it seems obvious that he has deployed these principles in startling ways. The architectural balance of the older, pink house is challenged by the apparently off-kilter construction of the new surrounding structure, a fact that is emphasized by his use of common, everyday materials. It was important to him to establish a sense of discontinuity between the original house and its addition; they

were not meant to blend into a harmonious, unified whole. Rather, it was variety—and change—that most interested him. The house is different from its neighbors. It does not fit in—willfully, almost gleefully so.

Leonardo's study is a remarkable example of the "rules" of proportion, yet the inventiveness and originality of Gehry's work teaches us, from the outset, that the "rules" guiding the creative process are, perhaps, made to be broken. In fact, the very idea of creativity implies a certain willingness on the part of artists to go beyond the norm, to extend the rules, and to discover new ways to express themselves. As we have seen, artists can easily create visual interest by purposefully breaking with conventions such as the traditional rules of perspective; likewise, any artist can stimulate our interest by purposefully manipulating the principles of design.

In the remainder of this chapter, we discuss the way artists combine the formal elements with design principles to create inventive, original work. Once we have seen how the formal elements and their design come together, we will be ready to survey the various materials, or media, that artists employ to make their art.

## BALANCE

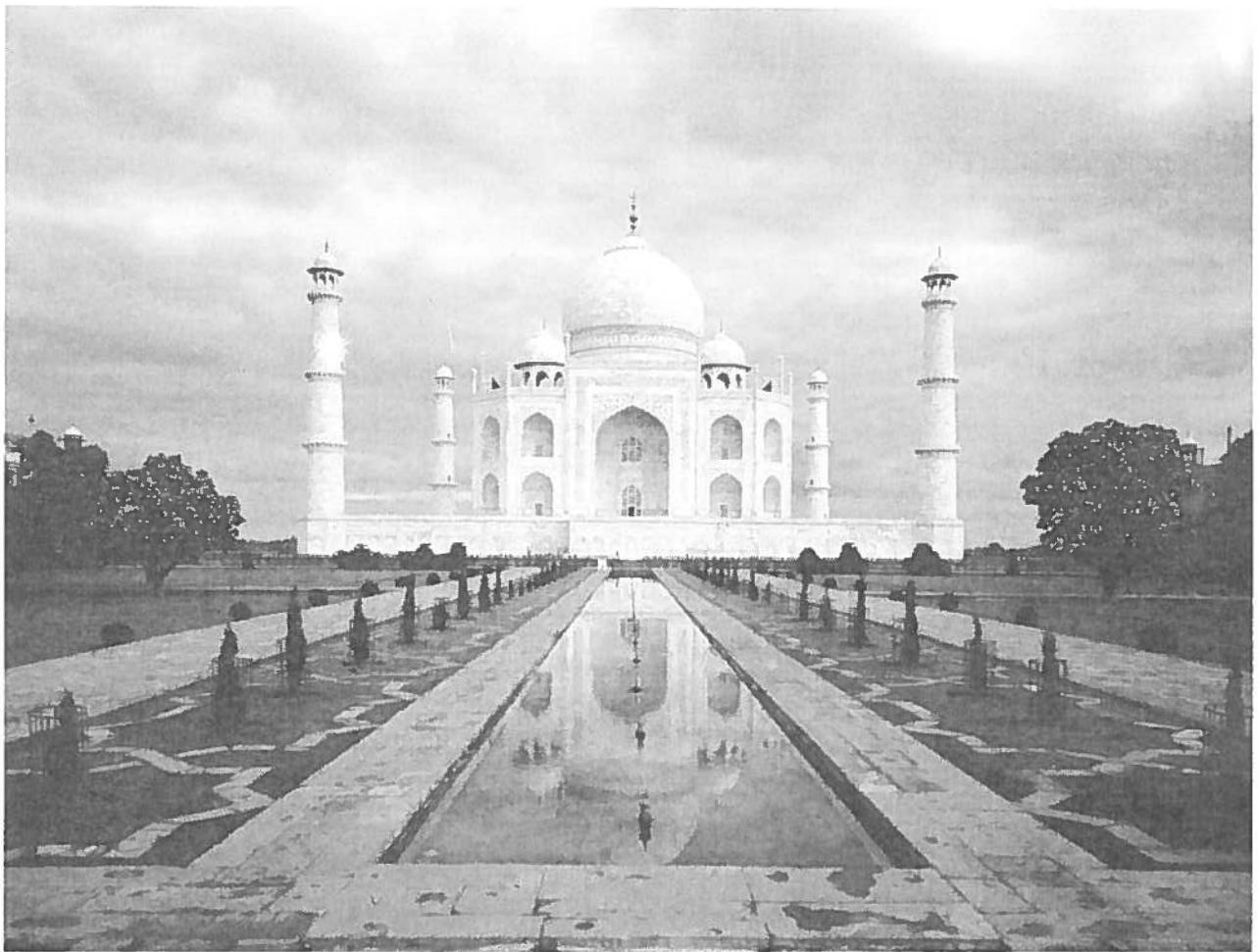
As a design principle, **balance** refers to the even distribution of weight in a composition. In sculpture and architecture, **actual weight**, or the physical weight of materials in pounds, comes into play, but all art deals with **visual weight**, the apparent “heaviness” or “lightness” of the shapes and forms arranged in the composition. Artists achieve visual balance in compositions by one of three means—symmetrical balance, asymmetrical balance, or radial balance. They may also deliberately create a work that appears to lack balance, knowing that instability is threatening and makes the viewer uncomfortable.

### Symmetrical Balance

If you were to draw a line down the middle of your body, each side of it would be, more or less, a mirror reflection of the other. When children make “angels” in the snow, they are creating, almost instinctively, **symmetrical** representations of themselves that recall

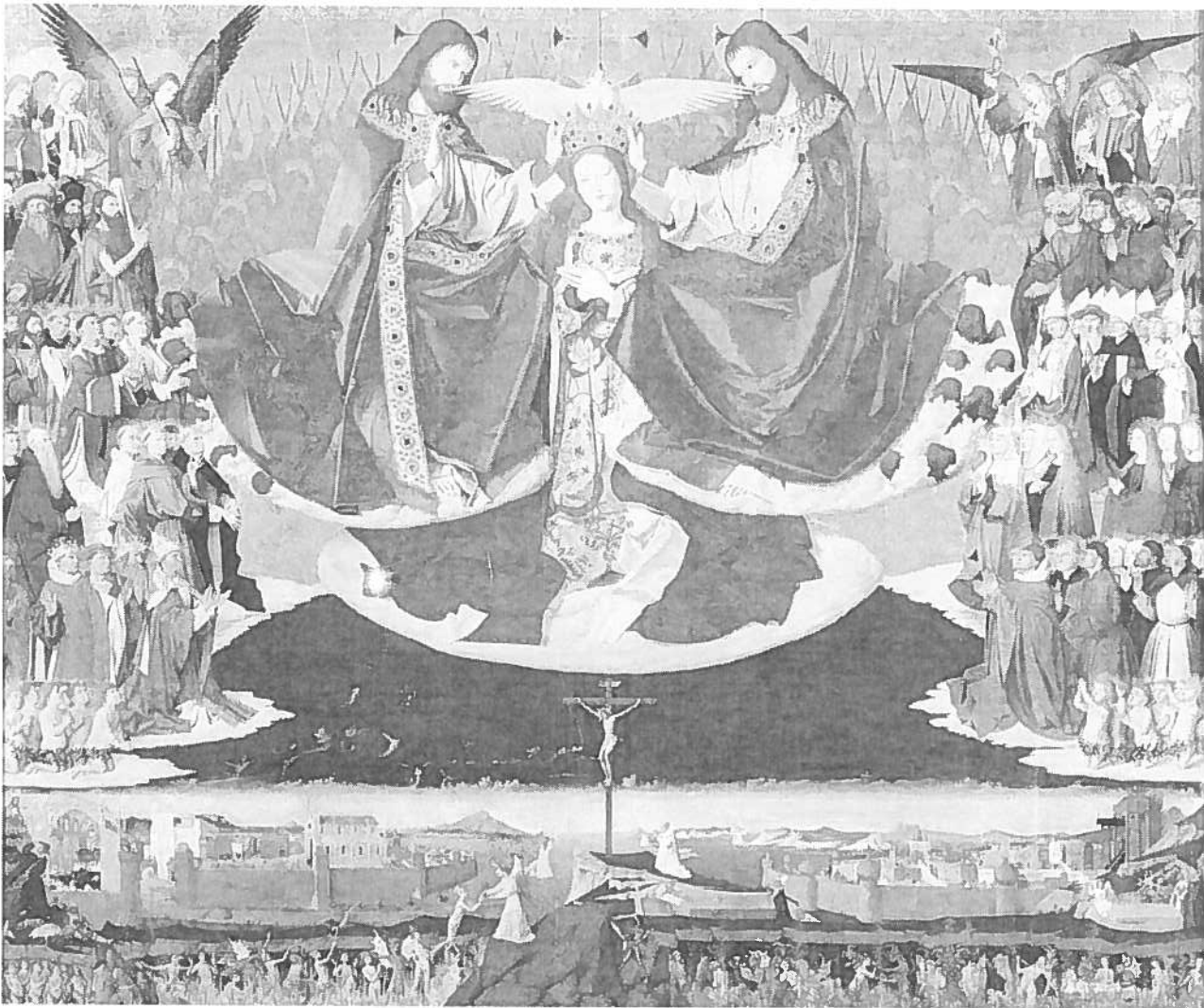
Leonardo's *Study of Human Proportion*. When each side is exactly the same, we have **absolute symmetry**. But even when it is not, as is true of most human bodies, where there are minor discrepancies between one side and the other, the overall effect is still one of symmetry, what we call **bilateral symmetry**. The two sides seem to line up.

One of the most symmetrically balanced—and arguably one of the most beautiful—buildings in the world of architecture is the Taj Mahal, built on the banks of the Jumna River at Agra in northern India (Fig. 183). Built as a mausoleum for the favorite wife of Shah Jahan (pictured beside his father, Shah Jahangir, in Fig. 6), who died giving birth to their fourteenth child, it is basically a square, although each corner is cut off in order to create a subtle octagon. Each facade is identical, featuring a central arched portal, flanked by two stories of smaller arched openings. These voids in the facade contribute to a sense of weightlessness in the building,



**Fig. 183** Taj Mahal, Agra, India, Mughal period, c. 1632–48.

Scala / Art Resource, NY.



**Fig. 184** Enguerrand Quarton, *Coronation of the Virgin*, 1453–54.  
Panel painting, 72 × 86<sup>7</sup>/<sub>8</sub> in., Musée de l'Hospice, Villeneuve-lès-Avignon.  
Giraudon / Art Resource, NY.

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which rises to a central onion dome. The facades are inlaid with elaborate decorations of semi-precious stones—carnelian, agate, coral, turquoise, garnet, lapis, and jasper—but they are so delicate and lacelike that they emphasize the whiteness of the whole rather than calling attention to themselves. The sense of overall symmetry is further enhanced by the surrounding gardens and reflecting pools.

One of the dominant images of symmetry in Western art is the crucifix, which is, in itself, a construction of absolute symmetry. In Enguerrand Quarton's remarkable *Coronation of the Virgin* (Fig. 184), the crucifix at the lower center of

the composition is a comparatively small detail in the overall composition. Nevertheless, its *cruciform* shape dominates the whole, and all the formal elements in the work are organized around it. Thus, God, the Father, and Jesus, the Son, flank Mary in almost perfect symmetry, identical in their major features (though the robes of each fall a little differently). On earth below, the two centers of the Christian faith flank the cross, Rome on the left and Jerusalem on the right. And at the very bottom of the painting, below ground level, Purgatory, on the left, out of which an angel assists a newly redeemed soul, balances Hell on the right. Each element balances out another, depicting a unified theological universe.

## Asymmetrical Balance

Balance can be achieved even when the two sides of the composition lack symmetry, if they seem to possess the same visual weight. A composition of this nature is said to be **asymmetrically balanced**. You probably remember from childhood what happened when an older and larger child got on the other end of the seesaw. Up you shot, like a catapult. In order to right the balance, the larger child had to move toward the fulcrum of the seesaw, giving your smaller self more leverage and allowing the plank to balance. The illustrations (Fig. 185) show, in visual terms, some of the ways this balance can be

attained (in a work of art, the center axis of the work is equivalent to the fulcrum):

(a) A large area closer to the fulcrum is balanced by a smaller area farther away. We instinctively see something large as heavier than something small.

(b) Two small areas balance one large area. We see the combined weight of the two small areas as equivalent to the larger mass.

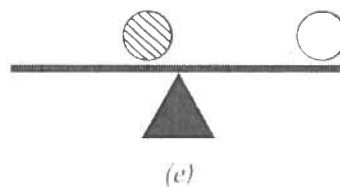
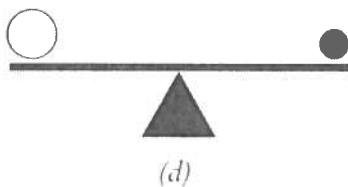
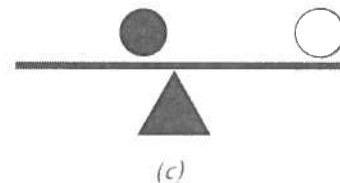
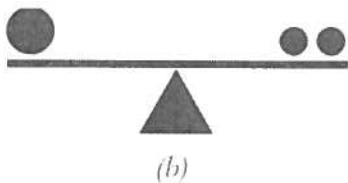
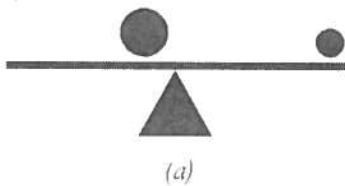
(c) A dark area closer to the fulcrum is balanced by a light area of the same size farther away. We instinctively see light-colored areas as light in weight, and dark-colored areas as dense and heavy.

(d) A large light area is balanced by a small dark one. Because it appears to weigh less, the light area can be far larger than the dark one that balances it.

(e) A textured area closer to the fulcrum is balanced by a smooth, even area farther away. Visually, textured surfaces appear heavier than smooth ones because texture lends the shape an appearance of added density—it seems “thicker” or more substantial.

These are only a few of the possible ways in which works might appear balanced. There are, however, no “laws” or “rules” about how to go about visually balancing a work of art. Artists generally trust their own eyes. When a work looks balanced, it is balanced.

Fig. 185 Some different varieties of asymmetrical balance.





**Fig. 186** Jan Vermeer, *Woman Holding a Balance*, c. 1664.

Oil on canvas, 15 $\frac{7}{16}$  × 14 in., framed 24 $\frac{3}{4}$  × 23 × 3 in. Widener Collection, National Gallery of Art, Washington, D.C.

Image © 2003 Board of Trustees, National Gallery of Art.

Photo: Bob Grove



**Fig. 187** Childe Hassam, *Boston Common at Twilight*, 1885–86.  
 Oil on canvas, 42 × 60 in. Museum of Fine Arts, Boston. Gift of Miss Maud E. Appleton, 1931. 31.952.  
 Photo © 2004 Museum of Fine Arts Boston. All rights reserved.

Jan Vermeer's *Woman Holding a Balance* (Fig. 186) is an asymmetrically balanced composition whose subject is the balance between the material and spiritual worlds. The center axis of the composition runs through the fulcrum of the scales that the woman is holding. Areas of light and dark on each side balance the design. The woman is evidently in the process of weighing her jewelry, which is scattered on the table before her. Behind her is a painting depicting the Last Judgment, when Christ weighs the worth of all souls for entry into heaven. The viewer is invited to think about the connection between the image in the two sides of the painting and how they relate to the woman's life.

Childe Hassam's *Boston Common at Twilight* (Fig. 187) is a good example of asymmetrical balance functioning in yet another way. The central axis around which this painting is balanced is not in the middle, but to the left. The setting is a snowy sidewalk on Tremont Street at dusk, as the gaslights are coming on. A fashionably dressed woman and

her daughters are feeding birds at the edge of the Boston Common. The left side of this painting is much heavier than the right. The dark bulk of the buildings along Tremont Street, along with the horse-drawn carriages and streetcars and the darkly clad crowd walking down the sidewalk, contrast with the expanse of white snow that stretches to the right, an empty space broken only by the dark trunks of the trees rising to the sky. The tension between the serenity of the Common and the bustle of the street, between light and dark—even as night comes on and daylight fades—reinforces our sense of asymmetrical balance. If we were to imagine a fulcrum beneath the painting that would balance the composition, it would in effect divide the street from the Common, dark from light, exactly, as it turns out, below the vanishing point established by the buildings, the street, and the lines of the trees extending down the park. Instinctively, we place ourselves at this fulcrum.



**Fig. 188** Ida Applebroog, *Emetic Fields*, 1989

Oil on canvas, 8 panels, 102 × 204½ in. Collection of the Whitney Museum of American Art, New York.

Courtesy Ronald Feldman Fine Arts, New York.

As Hassam's painting suggests, formal balance (or lack of it) can contribute to a work of art's emotional or psychological impact. Ida Applebroog's *Emetic Fields* (Fig. 188) is one of a number of works from a series of paintings called *Nostrums*. A nostrum is medicine (in this case an emetic, designed to induce vomiting) recommended by its preparer but usually without scientific proof of effectiveness. It is also the Latin word for "ours." These works represent, in other words, the trust we mistakenly place in those who purport to cure us. *Emetic Fields* is by and large symmetrical in its composition, consisting of a central grouping of four panels dominated by the color orange, flanked by a pair of two panel images dominated by the color green. These outer panels are representations of a surgeon and Queen Elizabeth. Applebroog explains:

*I love Queen Elizabeth. . . . Here's this woman called "Queen"—she gives that little wave—and she has no power whatsoever. In Emetic Fields, there is the figure of Queen Elizabeth and there is the figure of a surgeon. And that all goes back to my own sense of how power works. Queen Elizabeth, to me, is the epitome of how power works. Not too well. . . .*

*And it's the idea of how power works—male over female, parents over children, governments over people,*

*doctors over patients—that operates continuously [in my work].*

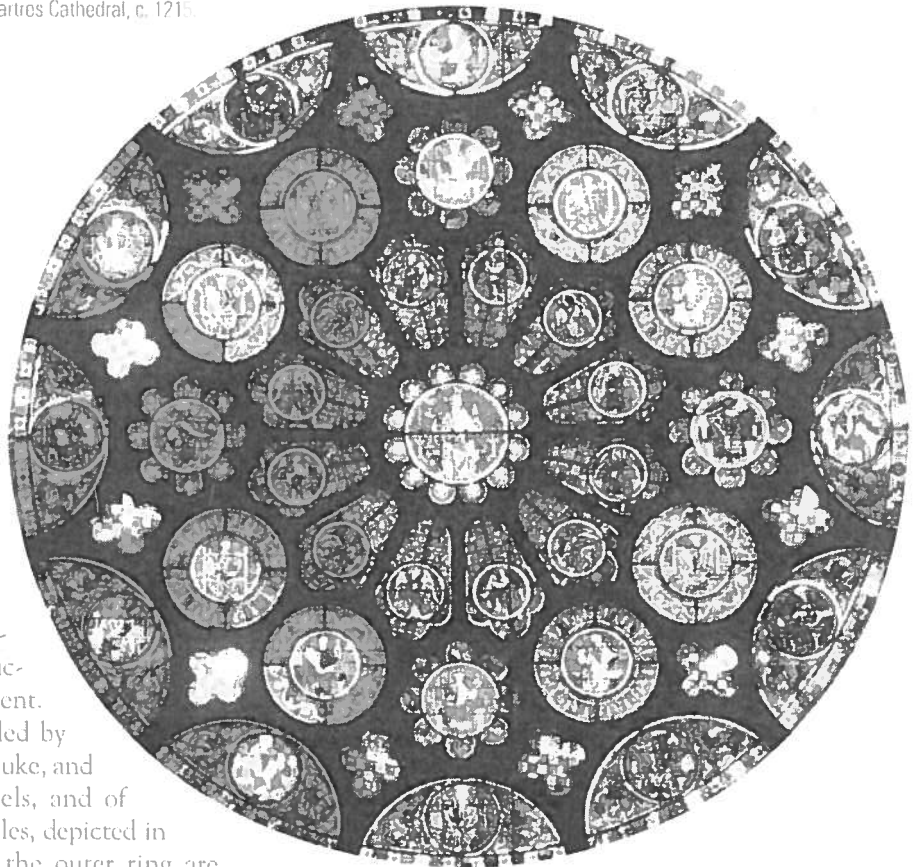
The symmetry of the painting suggests, in other words, a certain "balance of power" exercised by the two figures who purport to cure our physical and social ills—the surgeon and the Queen. These two, in turn, dominate the figures in the painting's central panels. In the largest of these, a woman stands above a pile of rotten fruit, her shoes attached to platforms, effectively impeding her ability to move. Hanging from the tree above her is other fruit, some of which contains images of other people, presumably about to rot on the branch themselves. Surrounding her are other images—a couple embracing, a lineup of girls apparently dressed for gym class, a man swinging an ax, a mother and child, a male figure carrying another who seems wounded, and a figure bending down to pick up a stone, as if, David-like, he is about to bring down the Goliath surgeon whose space he crosses into at the bottom left. Finally, the psychological imbalance suggested in the relation of the outer panels to the inner is underscored by the words that are repeated down the panel in front of Queen Elizabeth: "You are the patient. I am the real person."

**Fig. 189** Rose window, south transept, Chartres Cathedral, c. 1215.  
Chartres, France.  
Erich Lessing / Art Resource, NY

### Radial Balance

A final type of balance is **radial balance**, in which everything *radiates* outward from a central point. The large, dominating, and round stained-glass window above the south portal of Chartres Cathedral in France (Fig. 189) is a perfect example. Called a *rose window* because of its dominant color and its flowerlike structure, it represents the Last Judgment. At its center is Jesus, surrounded by the symbols of Matthew, Mark, Luke, and John, the writers of the Gospels, and of angels and seraphim. The Apostles, depicted in pairs, surround these, and on the outer ring are scenes from the Book of Revelations. In other words, the entire New Testament of the Bible emanates from Jesus in the center.

Perhaps because radial balance is so familiar in nature—from the petals of a flower to the rays of the sun—it commonly possesses, as at Chartres, spiritual and religious significance, a characteristic parodied by John Feodorov in his *Animal Spirit Channeling Device for the Contemporary Shaman* (Fig. 190). Feodorov, who is part Navajo and part Euro-American, often uses kitschy objects, such as this children's toy that imitates the sounds of various farm animals, to create “updated” ritual objects. In Native American cultures, animals are powerful totem symbols demanding fear and respect. Furthermore, the number 12 has deep ritual significance to the Navajo. By adding the word “spirit” to each of the 12 animals’ names on this toy, he implies that the recorded voice created by pulling on the tab at the bottom right is now imbued with a newfound spiritual power.



**Fig. 190** John Feodorov, *Animal Spirit Channeling Device for the Contemporary Shaman*, 1997.  
Mixed media, 15 × 17 × 3 in.  
Photo by the artist. Courtesy of the artist.

## EMPHASIS AND FOCAL POINT

Artists employ *emphasis* in order to draw the viewer's attention to one area of the work. We refer to this area as the *focal point* of the composition. The focal point of a radially balanced composition is obvious. The center of the rose window in the south transept of Chartres Cathedral (see Fig. 189) is its focal point and, fittingly, an enthroned Christ occupies that spot. The focal point of Quarton's *Coronation of the Virgin* (see Fig. 184) is Mary, who is also, nor coincidentally, the object of everyone's attention.

One important way that emphasis can be established is by creating strong contrasts of light and color. *Still Life with Lobster* (Fig. 191) uses a complementary color scheme to focus our attention. The work was painted in the court of the French king

Louis XVI by Anna Vallayer-Coster, a female member of the Académie Royale, the official organization of French painters (though it is important to note that after Vallayer-Coster was elected to the Académie in 1770, membership by women was limited to four, perhaps because the male-dominated Académie felt threatened by women's success). By painting everything else in the composition a shade of green, Vallayer-Coster focuses our attention on the delicious red lobster in the foreground. Lush in its brushwork, and with a sense of luminosity that we can almost feel, the painting celebrates Vallayer-Coster's skill as a painter, her ability to control both color and light. In essence—and the double meaning is intentional—the painting is an exercise in “good taste.”



**Fig. 191** Anna Vallayer-Coster, *Still Life with Lobster*, 1781.

Oil on canvas,  $27\frac{3}{4} \times 35\frac{1}{4}$  in. Toledo Museum of Art, Toledo, Ohio. Purchased with funds from the Libbey Endowment, Gift of Edward Drummond Libbey.

**Fig. 192** Georges de La Tour, *Joseph the Carpenter*, c. 1645.

Oil on canvas, 18½ × 25½ in.

Photo: Gérard Blot, Musée du Louvre / RMN Réunion des Musées Nationaux, France; Scala / Art Resource, NY.



Light can function like a stage spotlight, as in Artemisia Gentileschi's *Judith and Maidservant with the Head of Holofernes* (see Fig. 124), directing our gaze to a key place within the frame. The light in Georges de La Tour's *Joseph the Carpenter* (Fig. 192) draws our

attention away from the painting's titular subject, Joseph, the father of Jesus, and to the brightly lit visage of Christ himself. The candlelight here is comparable to the Divine Light, casting an ethereal glow across the young boy's face.

Similarly, Anselm Kiefer's *Parsifal I* (Fig. 193) draws our attention to the brightly lit crib set under the window of the artist's attic studio in a rural schoolhouse in Odenwald, a forested region of Southern Germany. First in a series of four paintings that illustrates Richard Wagner's last opera and its source in a thirteenth-century romance by Wolfram von Eschenbach, the painting represents the young hero Parsifal's innocent and sheltered childhood. Although his mother tried to protect him from knowledge of chivalric warfare, Parsifal would grow up to become a knight. His ultimate task was to recover, from the magician Klingsor, the so-called Spear of Destiny—the very spear, legend had it, that a Roman centurion had thrust into the side of Christ on the cross—so that

peace could be restored to the kingdom of the Grail. This is one of the earliest paintings in which Kiefer reflects upon and critiques the myths and chauvinism that eventually propelled the German Third Reich into power, in this case Hitler's own obsession with owning the Spear of Destiny, housed in the Hapsburg Treasure House in Vienna. When Hitler was 21 years old, a Treasure House guide had told him that whoever possessed the spear would hold the destiny of the world in his hands. Hitler would eventually invade Vienna and take possession of the relic. The painting thus embodies the ambivalence felt by Kiefer and his generation toward the excessive arrogance of German nationalism and its impact on history. Its focal point, reflecting across the floor as if across time, is a moment of innocence, the longing for a German past before war took a terrible toll on German consciousness.

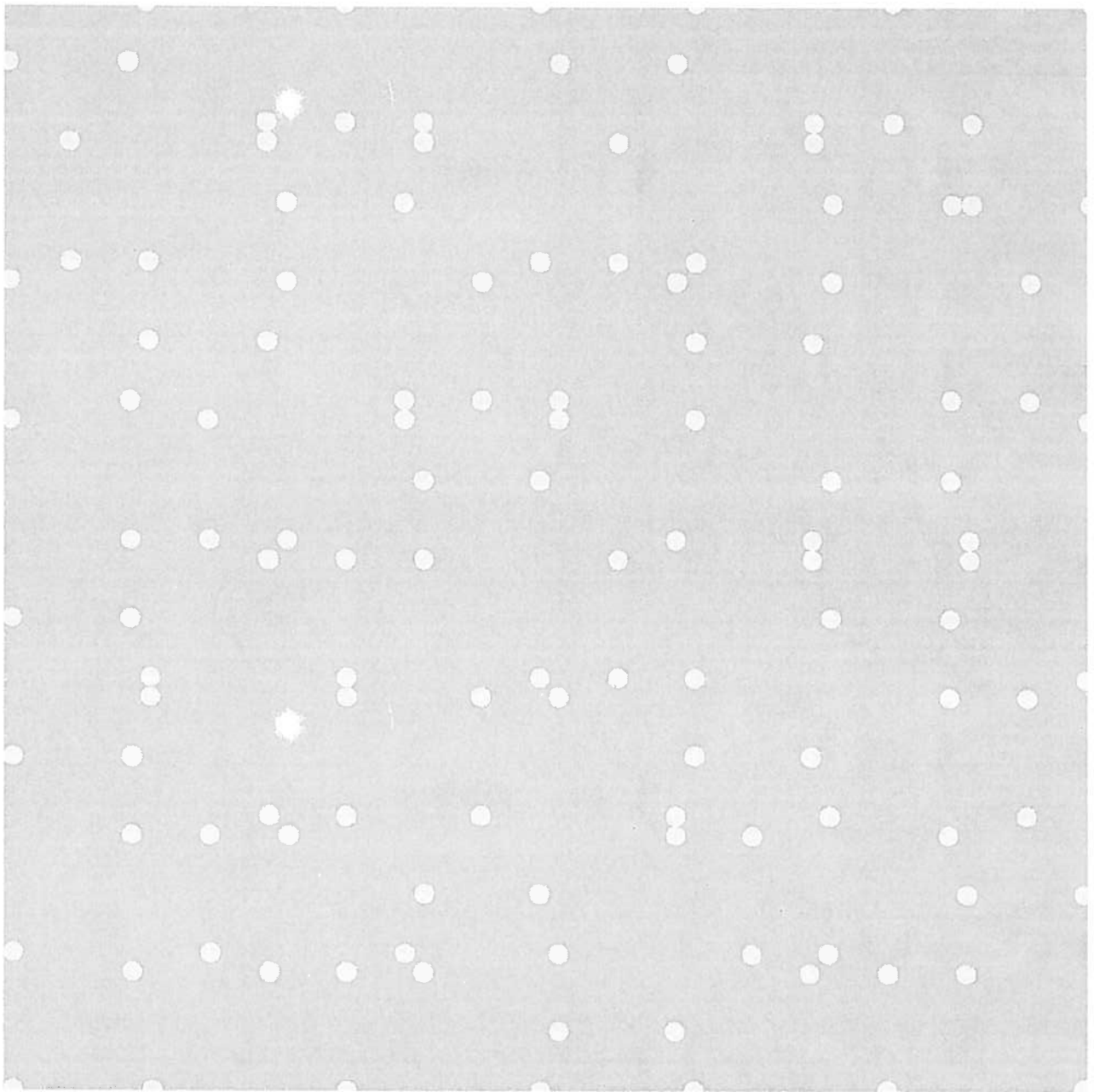
Finally, it is possible, as the earlier example of Pollock's *No. 29* (see Fig. 174) indicates, to make a work of art that is afocal—that is, not merely a work in which no single point of the composition demands our attention any more or less than any other, but also one in which the eye can find no place to rest. Diego Velázquez's *Las Meninas* is such a work (see *Works in Progress*, pp. 154–155). So is Larry Poons's *Orange Crush* (Fig. 194). The painting becomes afocal because the viewer's eye is continually distracted from its point of vision. If you stare for a while at the dots in the painting and then transfer your attention quickly to the more solid orange area that surrounds them, dots of an even more intense orange will appear. Your vision seems to want to float aimlessly through the space of this painting, focusing on nothing at all.



**Fig. 193** Anselm Kiefer, *Parsifal I*, 1973.

Oil on paper, 127<sup>7</sup>/<sub>8</sub> × 86<sup>1</sup>/<sub>2</sub> in. Tate Gallery, London, Great Britain. Purchased 1982. T0340.

Photo: Tate Gallery, London, Great Britain. Art Resource, NY.



**Fig. 194** Larry Poons, *Orange Crush*, 1963.

Acrylic on canvas, 80 × 80 in. Albright-Knox Art Gallery, Buffalo, New York. Gift of Seymour H. Knox, 1964.

© Larry Poons / Licensed by VAGA, New York.

# Works in Progress

In his masterpiece *Las Meninas* (*The Maids of Honor*) (Fig. 197), Diego Velázquez creates competing points of emphasis. The scene is the Spanish court of King Philip IV. The most obvious focal point of the composition is the young princess, the *infanta* Margarita, who is emphasized by her position in the center of the painting, by the light that shines brilliantly on her alone, and by the implied lines created by the gazes of the two maids of honor who bracket her. But the figures outside this central group, that of the dwarf on the right, who is also a maid of honor, and the painter on the left (a self-portrait of Velázquez), gaze away from the *infanta*. In fact, they seem to be looking at us, and so too is the *infanta* herself. The focal point of their attention, in other words, lies outside the picture plane. In fact, they are looking at a spot that appears to be occupied by the couple reflected in the mirror at the opposite end of the room, over the *infanta*'s shoulder (Fig. 198)—a couple that turns out to be King Philip IV and Queen Mariana, recognizable from the two portrait busts

painted by Velázquez at about the same time as *Las Meninas* (Figs. 195 and 196). It seems likely that they are the subject of the enormous canvas on the left that Velázquez depicts himself as painting, since they are in the position that would be occupied normally by persons sitting for a portrait. The *infanta* Margarita and her maids of honor have come, it would seem, to watch the royal couple have their portrait painted by the great Velázquez. And Velázquez has turned the tables on everyone—the focal point of *Las Meninas* is not the focal point of what he is painting.

Or perhaps the king and queen have entered the room to see their daughter, the *infanta*, being painted by Velázquez, who is viewing the entire room, including himself, in a mirror. Or perhaps the image on the far wall is not a mirror at all, but a painting, a double portrait. It has, in fact, been suggested that both of the single portraits illustrated here are studies for just such a double portrait (which, if it ever existed, is now lost). Or perhaps the mirror reflects not the king and queen but their double portrait, which Velázquez is painting and which the *infanta* has come to admire.



**Fig. 195** Diego Velázquez, *Philip IV, King of Spain*, 1652–53. Oil on canvas, 17 $\frac{1}{2}$  × 14 $\frac{3}{4}$  in. Kunsthistorisches Museum, Vienna. © Frick Lessing / Art Resource, NY



**Fig. 196** Diego Velázquez, *Portrait of Queen Mariana*, c. 1656. Oil on canvas, 18 $\frac{3}{8}$  × 17 $\frac{1}{8}$  in. Meadows Museum, Southern Methodist University, Dallas. Alger H. Meadows Collection. 78.01.

## Diego Velázquez's *Las Meninas*



**Fig. 197** Diego Velázquez, *Las Meninas (The Maids of Honor)*, 1656.

Oil on canvas, 10 ft.  $\frac{3}{4}$  in.  $\times$  9 ft.  $\frac{3}{4}$  in. Museo Nacional del Prado, Madrid.

All rights reserved. © Museo Nacional Del Prado, Madrid.

Whatever the case, Velázquez's painting depicts an actual work in progress. We do not know, we can never know, what work he is in the midst of making—a portrait of the king and queen, or *Las Meninas*, or some other work—but it is the working process he describes. And fundamental to that process, it would appear, is his interaction with the royal family itself, who are not merely his patrons, but the very measure of the nobility of his art.



**Fig. 198** Diego Velázquez, *Las Meninas*, 1656, detail. Museo Nacional del Prado, Madrid.

© Erich Lessing / Art Resource, NY.

## SCALE AND PROPORTION

Scale is the word we use to describe the dimensions of an art object in relation to the original object that it depicts or in relation to the objects around it. Thus, we speak of a miniature as a “small-scale” portrait, or of a big mural as a “large-scale” work. Scale is an issue that is important when you read a textbook such as this. You must always remember that the reproductions you look at do not usually give you much sense of the actual size of the work. The scale is by no means consistent throughout. That is, a relatively small painting might be reproduced on a full page, and a very large painting on a half page. In order to make the artwork fit on the book page we must—however unintentionally—manipulate its scale.

In both Do-Ho Suh's *Public Figures* (Fig. 199) and Claes Oldenburg and Coosje van Bruggen's *Spoonbridge and Cherry* (Fig. 200), the artists have intentionally manipulated the scale of the object depicted. In Do-Ho Suh's case, the scale of the people carrying the sculptural pediment has been diminished in relation to the pediment itself, which is purposefully lacking the expected statue of a public hero standing on top of it. “Let's say if there's one statue at the plaza of a hero, who helped or protected

our country,” Do-Ho Suh explains, “there are hundreds of thousands of individuals who helped him and worked with him, and there's no recognition for them. So in my sculpture, *Public Figures*, I had around six hundred small figures, twelve inches high, six different shapes, both male and female, of different ethnicities”—the “little people” behind the heroic gesture. Oldenburg and van Bruggen's *Spoonbridge and Cherry*, in contrast, is gigantic in scale. It is an intentional exaggeration that parodies the idea of garden sculpture even as it wryly comments on art as the “maraschino cherry” of culture, the useless and artificial topping on the cultural sundae.

**Proportion** refers to the relationship between the parts of an object and the whole, or to the relationship between an object and its surroundings. In Do-Ho Suh's *Public Figures*, the relationship between the parts of the work—between figures and the pedestal—works against our expectations of proportion in a monument. In Oldenburg and van Bruggen's *Spoonbridge and Cherry*, it is the unusual relationship between the object and its surroundings that gives the work its element of delight.

Artists also manipulate scale by the way they depict the relative size of objects. As we know from our study of perspective, one of the most important ways to represent recessionary space is to depict a thing closer to us as larger than a thing the same size farther away. This change in scale helps us to measure visually the space in the scene before us. When a mountain fills a small percentage of the space of a painting, we know that it lies somewhere in the distance. We judge its actual size relative to other elements in the painting and our sense of the average real mountain's size.



**Fig. 199** Do-Ho Suh, *Public Figures*, 1998–99. Installation view at Metrotech Center Commons, Brooklyn, New York. Fiberglass/resin, steel pipes, pipe fittings, 10 × 7 × 9 ft.

Courtesy of the artist and Lehmann Maupin Gallery, New York.

**Fig. 200** Claes Oldenburg and Coosje van Bruggen, *Spoonbridge and Cherry*, 1988.

Stainless steel and aluminum painted with polyurethane enamel, 29 ft. 6 in. × 51 ft. 6 in. × 13 ft. 6 in. Collection Walker Art Center, Minneapolis. Gift of Frederick R. Weisman in honor of his parents, William and Mary Weisman, 1988. © Claes Oldenburg and Coosje van Bruggen



Because everybody in Japan knows just how large Mount Fuji is, many of Hokusai's various views of the mountain take advantage of this knowledge and, by manipulating scale, play with the viewer's expectations. His most famous view of the mountain (Fig. 201) is a case in point. In the foreground, two boats descend into a trough beneath a great crashing wave that hangs over the scene like a giant, menacing claw. In the distance, Fuji rises above the horizon, framed in a vortex of wave and foam.

has echoed its shape in the foremost wave of the composition. While the wave is visually larger than the distant mountain, our sense of scale causes us to diminish its importance. The wave will imminently collapse, yet Fuji will remain. For the Japanese, Fuji symbolizes not only the everlasting, but Japan itself, and the print juxtaposes the perils of the moment with the enduring life of the nation.

Take a Closer Look on MyArtsLab

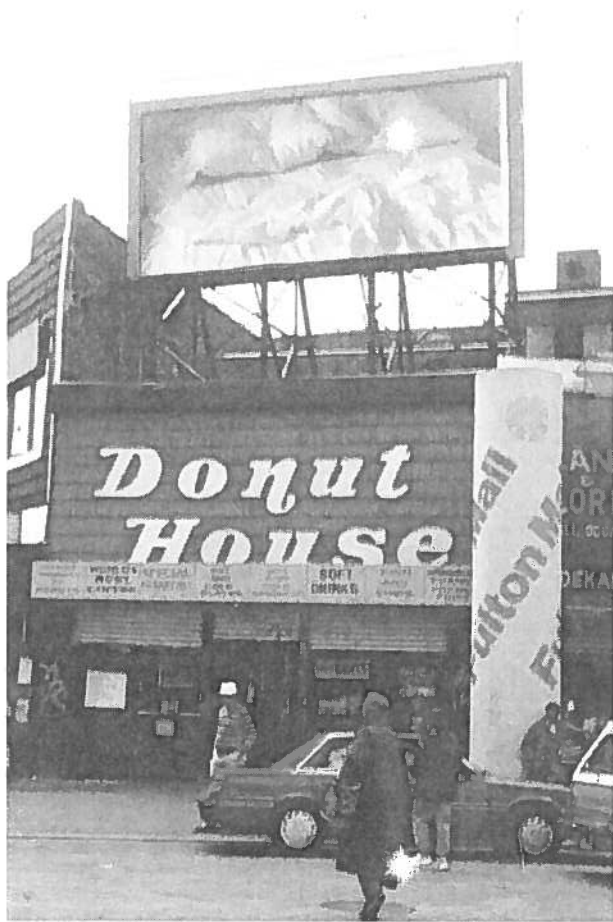


**Fig. 201** Hokusai, *The Great Wave off Kanagawa*, from the series *Thirty Six Views of Mount Fuji*, 1823–29.

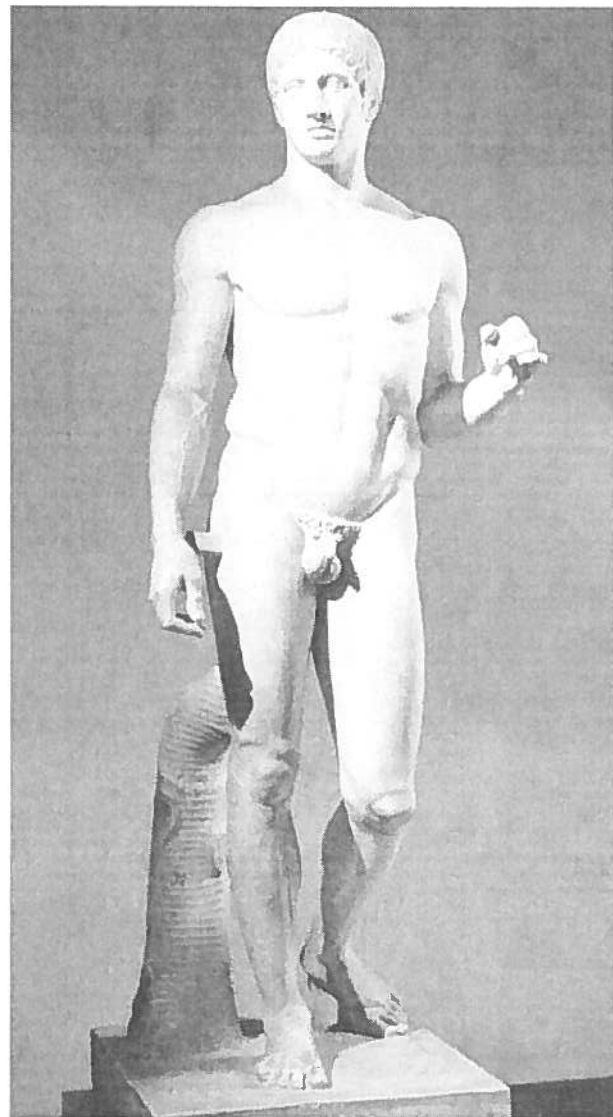
Color woodcut, 10 × 15 in.

© Historical Picture Archive / Corbis.

In the work of political activist artists like Felix Gonzalez-Torres, shifts in scale are designed to draw attention to the magnitude of global socio-political crises. In 1991, as part of an exhibition at the Museum of Modern Art in New York, Gonzalez-Torres installed 24 billboards across New York City with an image of an empty, unmade bed (Fig. 202). The image evoked feelings of emptiness, loss, loneliness, and, ultimately, death. Its enormous scale was designed, above all, to suggest the enormity of the AIDS epidemic, not only the number of people affected by it, but also the personal and private cost that it had inflicted on both the city's gay community and its heterosexual population. By bringing to light and making large what was otherwise hidden, as muralist Judith F. Baca does in her work (see *Works in Progress*, pp. 160–161), Gonzalez-Torres meant to heighten New York's awareness of the problem that he himself faced. He would die of AIDS in 1996, at the age of 38.



**Fig. 202** Felix Gonzalez-Torres, *Untitled*, 1991.  
Billboard, overall dimensions vary with installation.  
Courtesy of Andrea Rosen Gallery, New York, and Museum of Modern Art, New York. © The Felix Gonzalez-Torres Foundation



**Fig. 203** Polykleitos, *Doryphoros*, 450 B.C.E.  
Marble, Roman copy after lost bronze original, height 84 in. National Archaeological Museum, Naples.  
Dagli Orti / Archaeological Museum / Picture Desk, Inc., Kobal Collection.

When the proportions of a figure seem normal, on the other hand, the representation is more likely to seem harmonious and balanced. The classical Greeks, in fact, believed that beauty itself was a function of proper proportion. In terms of the human body, these perfect proportions were determined by the sculptor Polykleitos, who not only described them in a now-lost text called the *canon* (from the Greek *kanon*, or “rule”) but who also executed a sculpture to embody them. This is the *Doryphoros*, or “spear carrier,” the original of which is also lost, although numerous copies survive (Fig. 203). The perfection of this



**Fig. 204** *Parthenon*, 447–438 BCE.  
Pentelic marble, 111 × 237 ft. at base. Athens, Greece. D.A. Harissiadis, Athens.  
Studio Kuntos / Photostock

figure is based on the fact that each part of the body is a common fraction of the figure's total height. According to the canon, the height of the head ought to be one-eighth and the breadth of the shoulders one-fourth of the total height of the body.

This sense of mathematical harmony was utilized by the Greeks in their architecture as well. The proportions of the facade of the Parthenon, constructed in the fifth century BCE on the top of the Acropolis in Athens (Fig. 204), are based on the so-called **golden section**: The width of the building is 1.618 times the height. In terms of proportions, the height is to the width as 1 is to 1.618, or in less precise terms, approximately a ratio of 5:8. Plato regarded this proportion as the key to

understanding the cosmos and, many years later, in the thirteenth century CE, the mathematician Leonardo Fibonacci discovered that this ratio is part of an infinite sequence (1, 2, 3, 5, 8, 13, 21, 34, 55, 89, etc.) in which each number is the sum of the two numbers before it, and each pair of numbers is a ratio that, as the numbers increase, more and more closely approximates 1:1.618. That the Parthenon should be constructed according to this proportion is hardly accidental. It is a temple to Athena, not only the protectress of Athens but also the goddess of wisdom, and the golden section represents to the ancient Greeks not merely beauty, but the ultimate wisdom of the universe.

Take a  
Closer Look on  
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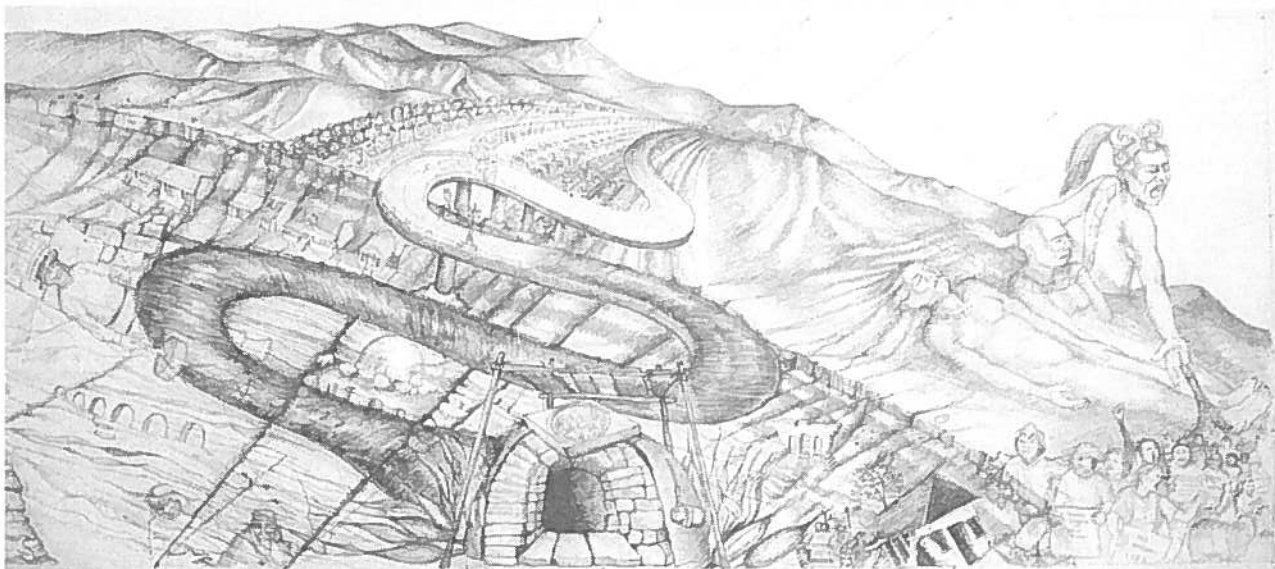
# Works in Progress

In 1933, Mexican artist David Alfaro Siqueiros painted a mural, *America Tropical*, on Olvera Street, the historic center of Chicano and Mexican culture in Los Angeles. It was quickly painted over by city fathers, who objected to its portrayal of the plight of Mexicans and Chicanos in California. Currently under restoration with funds provided by the Getty Foundation, the mural depicts a *mestizo* (a person of mixed European and Native American ancestry) shooting at an American eagle and a crucified Chicano, one of the inspirations for Guillermo Gómez-Peña's *Crucifixion Project* (see Fig. 55). Siqueiros's mural, and the work of the other great Mexican muralists of the twentieth century, Diego Rivera and Clemente Orozco—*Los Tres Grandes*, as they are known—has also inspired activist artist Judy Baca, who has dedicated her career to “giving voice” to the marginalized communities of California.

In 1996, at the University of Southern California in Los Angeles, Baca was commissioned to create a mural (Fig. 206) for the student center, designed to embody the Chicano presence on campus and to

symbolize the long struggle of USC's Chicano community to gain acknowledgment at the university. The project illustrates her working method. She begins with a group effort, gathering interested students together to research the historical events that took place around the site. This “excavation of the land,” as she calls it, is the foundation for the collaborative venture to follow. Layers of information and historical data in the form of photographs, newspaper clippings, and old letters are gathered by students. Like layers of paint, the information is blended to become the imagery of the art—an imagery that will express, Baca hopes, the truth of the place where the work will be housed. She then creates a drawing (Fig. 205) based on the students' research, and the drawing is transferred to the wall.

The USC mural was conceived as a history of the Chicano community in Los Angeles, from the earliest houses in Senora town to the destruction of the large community at Chavez Ravine—the line of blue houses under the freeway—to make way for Dodger Stadium. At the bottom center of the painting is a



**Fig. 205** Judith F. Baca, *la Memoria de Nuestra Tierra*, 1996.  
Preliminary drawing, acrylic on canvas, 9 × 23 ft. USC Student Topping Center.  
© 1997 Judith F. Baca. Courtesy of the artist.

## Judith F. Baca's *La Memoria de Nuestra Tierra*



**Fig. 206** Judith F. Baca, *La Memoria de Nuestra Tierra*, 1996.

Acrylic on canvas, 9 × 23 ft. USC Student Topping Center.

© 1997 Judith F. Baca. Courtesy of the artist.

*kiva*, the traditional ceremonial center of native American culture in the Southwest, from which flows the river of life, itself transformed into a freeway before it leads out into the fields beyond. At the right, an Aztec goddess rises in protest from the land, and from her hand flows a river of blood, that is itself transformed into a cadre of Chicano Civil Rights activists. Like the mural by Siqueiros, it originally included a lynching, visible under the white S-curve of the freeway in the drawing. This tiny  $\frac{3}{4}$ -inch image, a reference to the lynching of Mexican-American workers in California before and during the Mexican-American Civil Rights Movement, was deemed “absolutely unacceptable” by the president of

the university, causing work on the project to come to a stop. It was subsequently removed from the final mural, a compromise that allowed Baca to complete the rest of the project as she had originally planned.

Scale is everywhere an issue in Baca’s mural. The mural is, in the first place, a “large-scale” work, dominating the room it occupies. In the process of its creation, the piece changes scale as well, from drawing to wall, from the intimate view to the public space. Most interesting of all is the controversy surrounding the hanging man. The image was itself very small, but it became emotionally large in scale—absolutely unacceptable, Baca agreed, but not as an image, as a fact.

### WATCH VIDEO

Watch Judith F. Baca as she both installs *La Memoria de Nuestra Tierra* on the University of Southern California campus and directs another project at California State University at Monterey Bay in the *Works in Progress* video series.

## REPETITION AND RHYTHM

Repetition often implies monotony. If we see the same thing over and over again, it tends to get boring. Nevertheless, when the same or like elements—shapes, colors, or a regular pattern of any kind—are repeated over and over again in a composition, a certain visual **rhythm** will result. In Jacob Lawrence's *Barber Shop* (Fig. 207), this rhythm is established through the repetition of both shapes and colors. One pattern is based on the diamond-shaped figures sitting in the barber chairs, each of which is covered with a different-colored apron: one lavender and white, one red, and one black and green. The color and pattern of the left-hand patron's apron is echoed in the shirts of the two barbers on the right, while the pattern of the right-hand patron's apron is repeated in the vest of the barber on the left. Hands, shoulders, feet—all work into the triangulated format of the design. "The painting," Lawrence explained in 1979, "is one of the many

works . . . executed out of my experience . . . my everyday visual encounters." It is meant to capture the rhythm of life in Harlem, where Lawrence grew up in the 1930s. "It was inevitable," he says, "that the barber shop with its daily gathering of Harlemites, its clippers, mirror, razors, the overall pattern and the many conversations that took place there . . . was to become the subject of many of my paintings. Even now, in my imagination, whenever I relive my early years in the Harlem community, the barber shop, in both form and content . . . is one of the scenes that I still see and remember."

As we all know from listening to music, and as Lawrence's painting demonstrates, repetition is not necessarily boring. *The Gates of Hell* (Fig. 208), by Auguste Rodin, was conceived in 1880 as the entry for the Museum of Decorative Arts in Paris, which was never built. The work is based on the *Inferno* section of Dante's *Divine Comedy* and is filled with nearly 200



Fig. 207 Jacob Lawrence, *Barber Shop*, 1946.

Gouache on paper, 21 $\frac{1}{2}$  × 29 $\frac{3}{8}$  in. (53.6 × 74.6 cm). The Toledo Museum of Art, Toledo, Ohio. Purchased with funds from the Libbey Endowment, Gift of Edward Drummond Libbey.

Artwork © 2003 Gwendolyn Knight Lawrence, courtesy of the Jacob and Gwendolyn Lawrence Foundation, © 2007 Gwendolyn Knight Lawrence / Artists Rights Society (ARS), New York.

**Fig. 208** Auguste Rodin, *Gates of Hell with Adam and Eve*, 1880–1917.  
Bronze, 250<sup>3</sup>/<sub>4</sub> × 158 × 33<sup>3</sup>/<sub>8</sub> in. Stanford University Museum of Art.  
Photo: Frank Wing.



**Fig. 209** Auguste Rodin *The Three Shades*, 1881–86.  
Bronze Coubertin foundry, posthumous cast authorized by Musée Rodin, 1980, 75<sup>1</sup>/<sub>2</sub> × 75<sup>1</sup>/<sub>2</sub> × 42 in. (195.5 × 195.5 × 108.8 cm). Iris & B. Gerald Cantor Centre for Visual Arts at Stanford University.  
Gift of the B. Gerald Cantor Collections.

figures who swirl in hellfire, reaching out as if continually striving to escape the surface of the door. Rodin's famous *Thinker* sits atop the door panels, looking down as if in contemplation of man's fate, and to each side of the door, in its original conception, stand Adam and Eve. At the very top of the door is a group of three figures, the *Three Shades*, guardians of the dark inferno beneath.

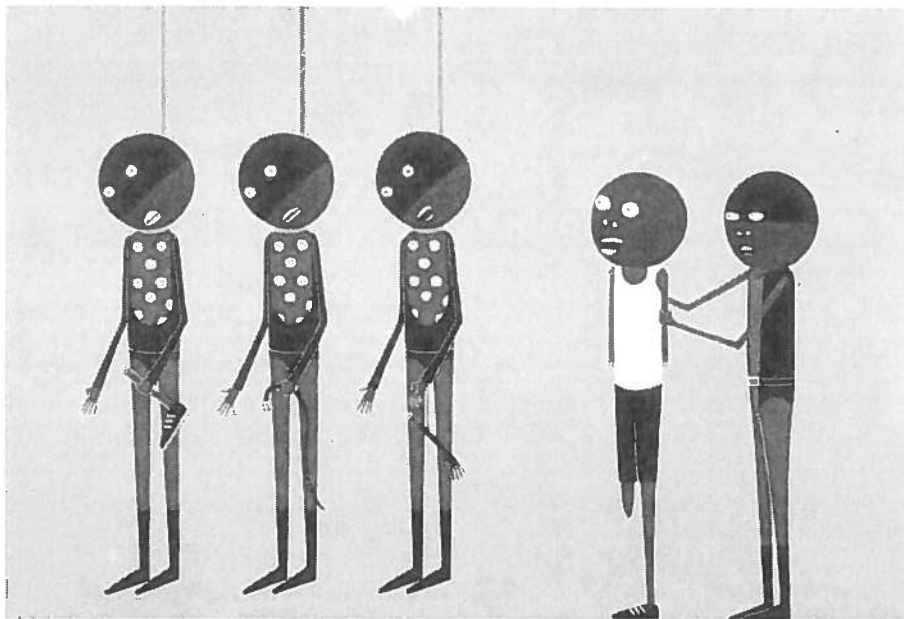
What is startling is that the *Three Shades* are not different, but, in fact, all the same (Fig. 209). Rodin cast his Shade three times and arranged the three casts in the format of a semicircle. (As with *The Thinker* and many other figures on the *Gates*, he also exhibited them as a separate, independent sculpture.) Though each figure is identical, thus arranged, and viewed from different

sides, each appears to be a unique figure. Furthermore, in the *Gates*, the posture of the figure of Adam, in front and to the left, echoes that of the *Shades* above. This formal repetition, and the downward pull that unites all four figures, implies that Adam is not merely the father of us all, but, in his sin, the very man who has brought us to the Gates of Hell.

In Laylah Ali's most famous and longest-running series of paintings, depicting the brown-skinned and gender-neutral Greenheads (Fig. 210), repetition plays a crucial role. Her figures are the archetypal "Other," a sort of amalgam of extraterrestrial Martians with their green heads and the dark-skinned denizens of the Third World. In the image reproduced here, three almost identical but masked Greenheads are being hung in front of an unmasked fourth victim. The hanged Greenheads hold in their hands the amputated leg and arm, as well as the belt (for Ali, belts connote power) of the figure awaiting his or her fate. As Ali says, "The repetition is what I think is so striking. It's not like one thing happens and you say, 'Wow! That was just so terrible,' and it will never happen again. You know it will happen again." The horror of her images, in other words, resides exactly in their repetition.

## UNITY AND VARIETY

Repetition and rhythm are employed by artists in order to unify the different elements of their works. In



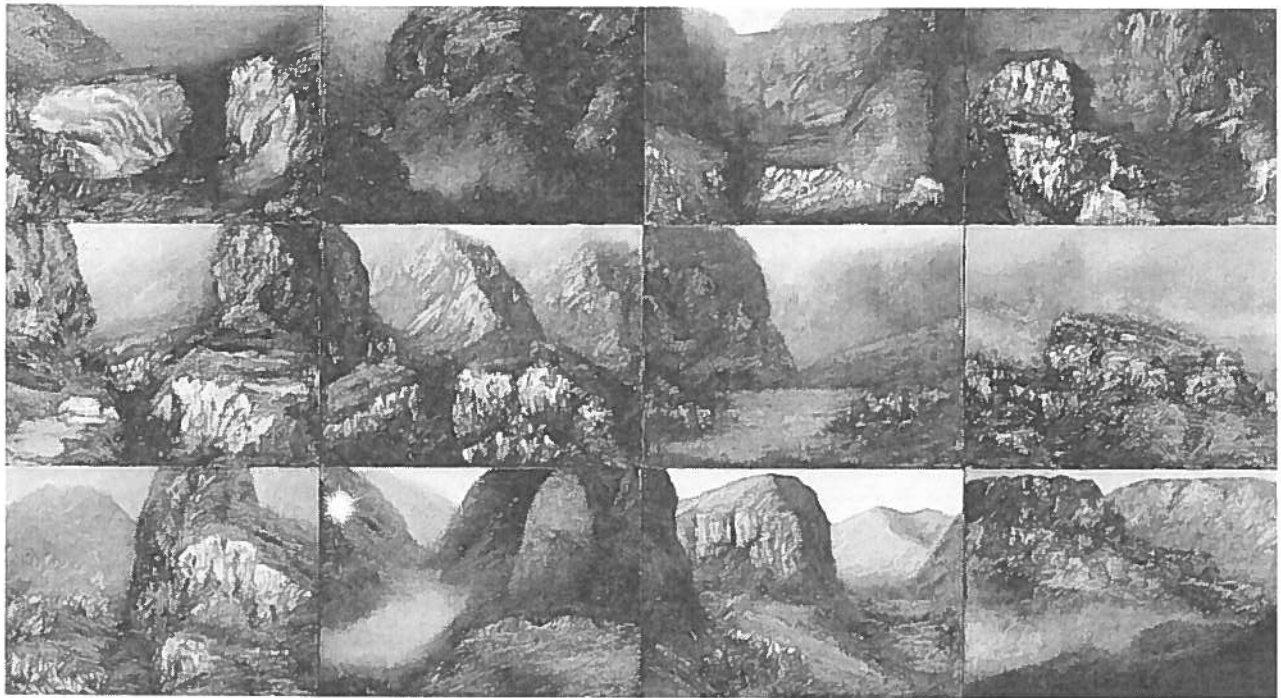
**Fig. 210** Laylah Ali, *Untitled*, 2000.  
Gouache on paper, 13 × 19 in.  
Courtesy 303 Gallery, New York

*Barber Shop* (see Fig. 207), Jacob Lawrence gives the painting a sense of coherence by repeating shapes and color patterns. Each of the principles of design that we have discussed leads to this idea of organization, the sense that we are looking at a unified whole—balanced, focused, and so on. Even Lawrence's figures, with their strange, clumsy hands, their oversimplified features, and their oddly extended legs and feet, are uniform throughout. Such consistency lends the picture its feeling of being complete.

It is as if, in *Barber Shop*, Lawrence is painting the idea of community itself, bringing together the diversity of the Harlem streets through the unifying patterns of his art. In fact, if everything were the same, in art as in life, there would be no need for us to discuss the concept of "unity." But things are not the same. The visual world is made up of different lines, forms, colors, textures—the various visual elements themselves—and they must be made to work together. Still, Rodin's *Three Shades atop the Gates of Hell* (see Fig. 209) teaches us an important lesson. Even when each element of a composition is identical, it is variety—in this case, the fact that our point of view changes with each of the *Shades*—that sustains our interest. In general, unity and variety must coexist in a work of art. The artist must strike a balance between the two.

James Lavadour's *The Seven Valleys and the Five Valleys* (Fig. 211) is a stylistically unified composition of 12 landscape views, but each of the views is quite different from the others. Lavadour's paintings

constantly negotiate the boundaries between realism and abstraction—between the landscape of his Native American heritage and his training as a contemporary artist. Close up, they seem to dissolve into a scraped, dripped, and brushed abstract surface, but seen from a distance, they become expansive landscape views, capturing the light and weather of the Pacific Northwest plateau country where Lavadour lives. Viewing a painting such as this is like viewing a series of Monet grain stacks, all rolled into one.



**Fig. 211** James Lavadour, *The Seven Valleys and the Five Valleys*, 1988.  
Oil on canvas, 54 × 96 in. Collection of Ida Cole  
Courtesy of the artist and PDX, Portland, Oregon.

In the twentieth century, artists have increasingly embraced and exploited tensions such as those found in Lavadour's work. Rather than seeking a means to unify the composition, they have sought to expose not just variety, but opposition and contradiction. A photograph by Louise Lawler, *Pollock and Tureen* (Fig. 212) not only brings two radically contradictory objects into a state of opposition but demonstrates how, by placing them side by side, they

influence the ways in which we understand them. Thus, the Pollock painting in this photograph is transformed into a decorative or ornamental object, much like the tureen centered on the table in front of it. Lawler not only underscores the fact that the painting is, like the tureen, a marketable object, but also suggests that the expressive qualities of Pollock's original work have been emptied, or at least nearly so, when looked at in this context.



**Fig. 212** Louise Lawler, *Pollock and Tureen*, 1984.  
Cibachrome, 28 × 39 in.  
Courtesy of the artist and Metro Pictures, NY



Fig. 213 Las Vegas, Nevada.

Steve Vidler / SuperStock, Inc.

It is this sense of disjunction, the sense that the parts can never form a unified whole, that we have come to identify with what is commonly called postmodernism. The discontinuity between the old and the new that marks Frank Gehry's house (see Fig. 182), discussed at the beginning of this chapter, is an example of this postmodern sensibility, a sensibility defined particularly well by another architect, Robert Venturi, in his important 1972 book, *Learning from Las Vegas*, written with Denise Scott Brown and Steven Iznour. For Venturi, the collision of styles, signs, and symbols that marks the American "strip," especially the Las Vegas strip (Fig. 213), could be seen in light of a new sort of unity. "Disorder,"

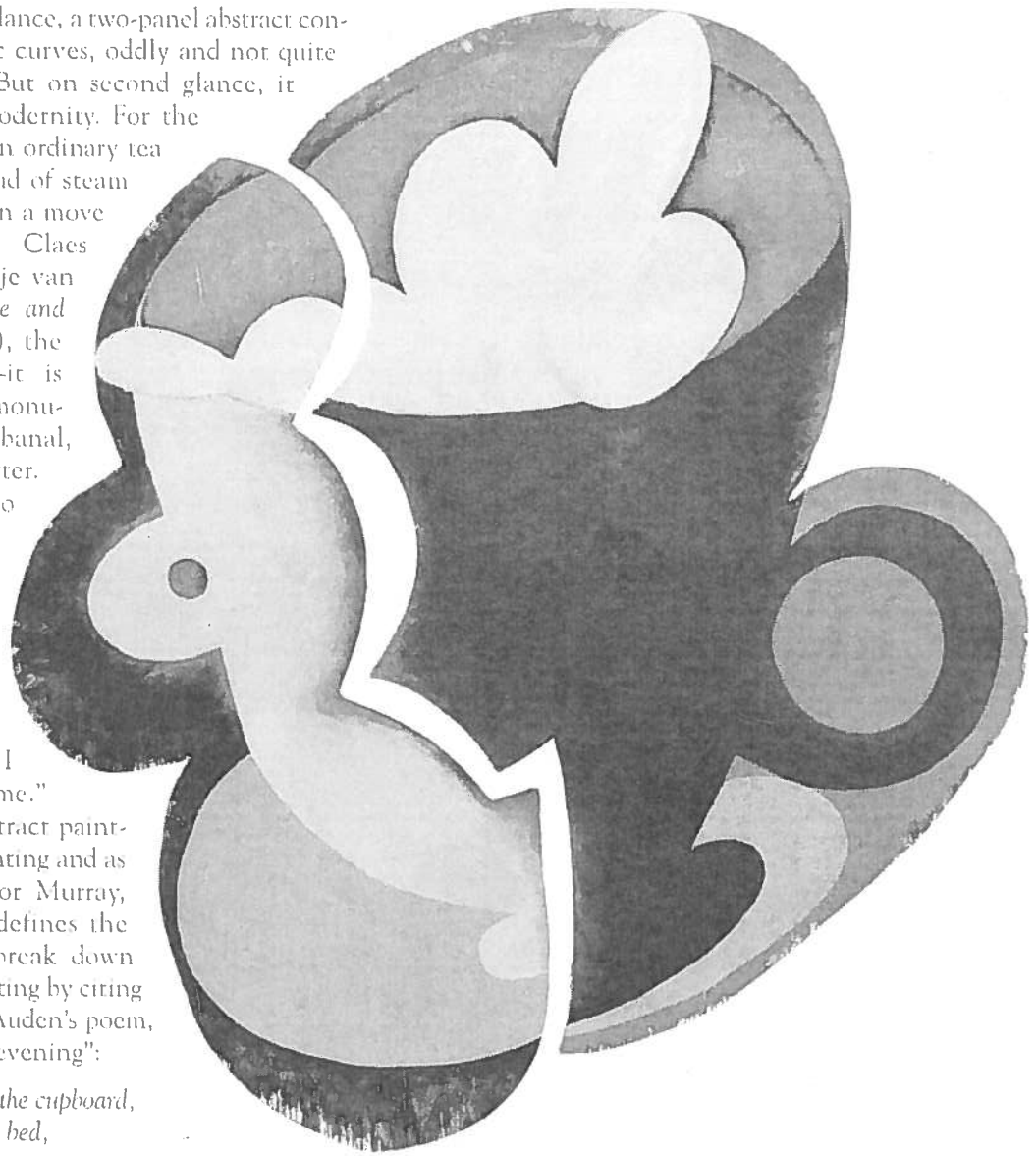
Venturi writes, "[is] an order we cannot see . . . The commercial strip with the urban sprawl . . . [is an order that] includes; it includes at all levels, from the mixture of seemingly incongruous land uses to the mixture of seemingly incongruous advertising media plus a system of neoorganic . . . restaurant motifs in Walnut Formica." The strip declares that anything can be put next to anything else. While traditional art has tended to exclude things that it deemed unartful, postmodern art lets everything in. In this sense, it is democratic. It could even be said to achieve a unity larger than the comparatively elitist art of high culture could ever imagine.

Elizabeth Murray's shaped canvas *Just in Time* (Fig. 214) is, at first glance, a two-panel abstract construction of rhythmic curves, oddly and not quite evenly cut in half. But on second glance, it announces its postmodernity. For the construction is also an ordinary tea cup, with a pink cloud of steam rising above its rim. In a move that calls to mind Claes Oldenburg and Coosje van Bruggen's *Spoonbridge and Cherry* (see Fig. 200), the scale of this cup—it is nearly 9 feet high—monumentalizes the banal, domestic subject matter.

Animal forms seem to arise out of the design—a rabbit on the left, an animated, Disney-like, laughing teacup in profile on the right. The title recalls pop lyrics—"Just in time, I found you just in time." Yet it remains an abstract painting, interesting as painting and as design. It is even, for Murray, deeply serious. She defines the significance of the break down the middle of the painting by citing a stanza from W. H. Auden's poem, "As I walked out one evening":

*The glacier knocks in the cupboard,  
The desert sighs in the bed,  
And the crack in the tea-cup opens  
A lane to the land of the dead.*

Who knows what meanings are rising up out of this crack in the cup, this structural gap? Murray's painting is at once an ordinary teacup and an image rich in possible meanings, stylistically coherent and physically fragmented. The endless play of unity and variety is what it's about.



**Fig. 214** Elizabeth Murray, *Just in Time*, 1981.

Oil on canvas in two sections, 106 × 97 in. Philadelphia Museum of Art. Purchased: The Edward and Althea Budd Fund, the Adele Haas Turner and Beatrice Pastorius Fund, and funds contributed by Marion Stroud and Lorine E. Vogt. 1981–1994-1a,b.

## THE CRITICAL PROCESS

### Thinking about the Principles of Design

By way of concluding this part of the book, let's consider how the various elements and principles inform a particular work, Monet's *The Railroad Bridge, Argenteuil* (Fig. 215). Line comes into play here in any number of ways. How would you describe Monet's use of line? Is it classical or expressive? Two strong diagonals—the near bank and the bridge itself—cross the picture. What architectural element depicted in the picture echoes this structure? Now note the two opposing directional lines in the painting—the train's and the boat's. In fact, the boat is apparently racking against a strong wind that blows from right to left, as the smoke coming from the train's engine indicates. Where else in the painting is this sense of opposition apparent? Consider the relationships of light to dark in the composition and the complementary color scheme of orange and blue that is

especially used in the reflections and in the smoke above. Can you detect opposing and contradictory senses of symmetry and asymmetry? What about opposing focal points?

What appears at first to be a simple landscape view, upon analysis reveals itself to be a much more complicated painting. In the same way, what at first appears to be a cloud becomes, rather disturbingly, a cloud of smoke. Out of the dense growth of the near bank, a train emerges. Monet seems intent on describing what larger issues here? We know that when Monet painted it, the railroad bridge at Argenteuil was a new bridge. How does this painting capture the dawn of a new world, a world of opposition and contradiction? Can you make a case that almost every formal element and principle of design at work in the painting supports this reading?

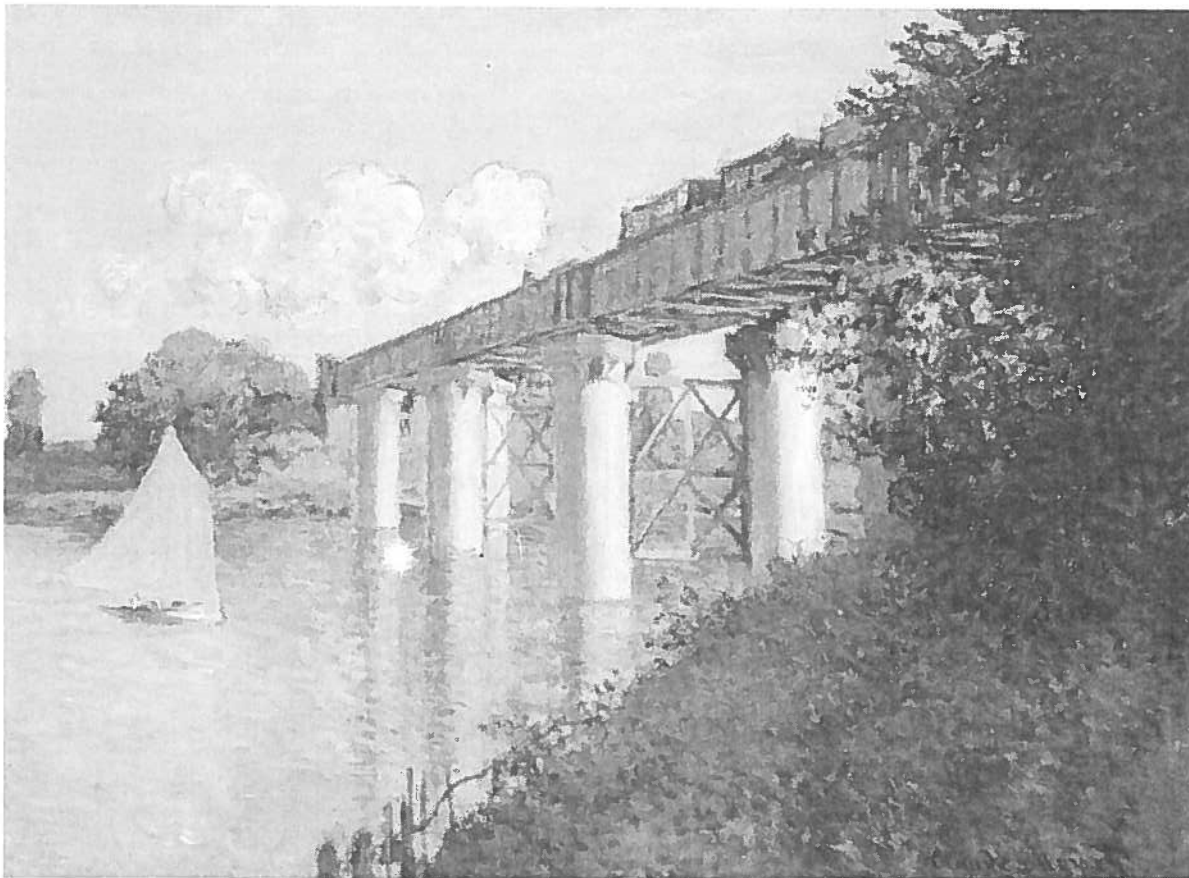


Fig. 215 Claude Monet, *The Railroad Bridge, Argenteuil*, 1874.

Oil on canvas, 21<sup>1</sup>/<sub>5</sub> × 29<sup>2</sup>/<sub>5</sub> in. The John G. Johnson Collection, Philadelphia Museum of Art. J#1050.