

PRINCIPLES OF DESIGN

Organized perception is what art is all about.

ROY LICHTENSTEIN¹



We are continually affecting and being affected by design—our own designs and the designs of others. Whenever we select clothing, place items on a plate, arrange furniture, or hang pictures, we are designing. The process of selecting and ordering the objects and events in our daily lives is related to the design process in art. Like all of us, artists and designers organize visual elements in order to create meaningful and interesting form. In two-dimensional arts, such as painting and photography, this organization is usually called *composition*, but a broader term that applies to the entire range of visual arts is *design*. The word *design* indicates both the process of organizing visual elements and the product of that process.

Design addresses our basic need for meaningful order. Some designs are so well integrated that they have qualities beyond a mere sum of their parts. Such designs are said to be beautiful, interesting, absorbing, or surprising. Our desire to unify our experience of form is at the root of our appreciation for design.

There are no absolute rules for good design. However, there are principles and general guidelines

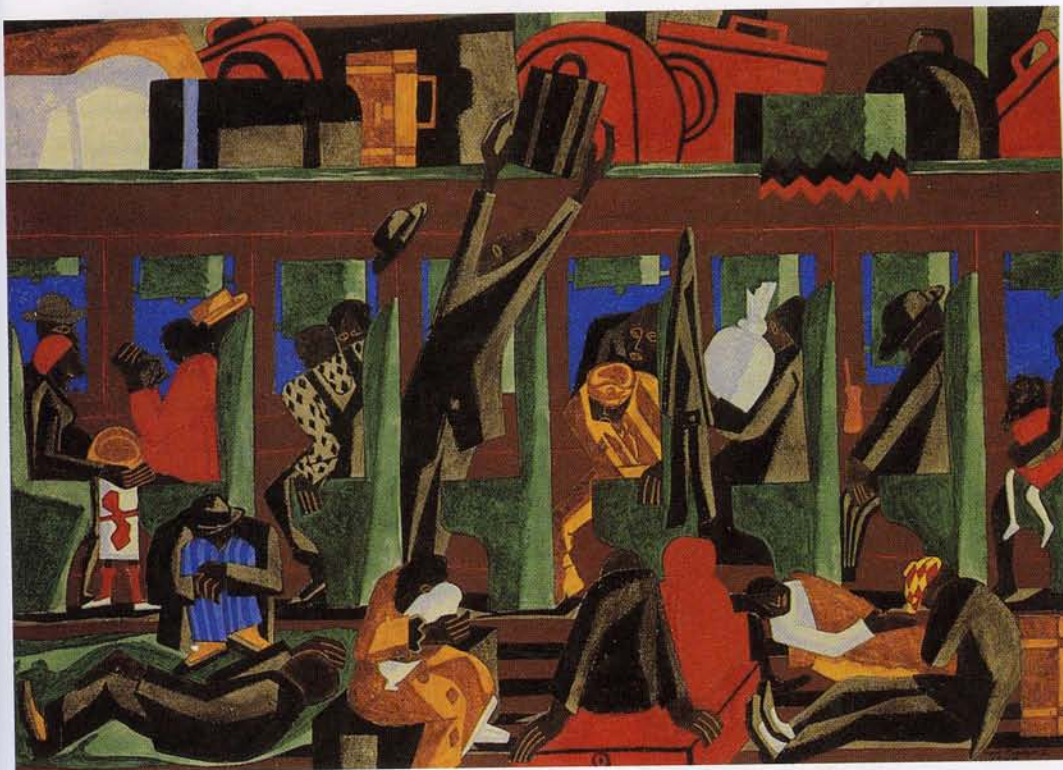
for effective visual communication. We study them for the same reason artists do: to develop our innate design sense, to give ourselves a vocabulary for talking to one another about what we see, and to become more sensitive to the expressive and relational possibilities of form. In this chapter we look at seven key principles of design:

- unity and variety
- balance
- emphasis and subordination
- directional forces
- contrast
- repetition and rhythm
- scale and proportion

Together, these terms provide an understanding not only of how artists work but also of how design affects us. The process at its best is a lively give-and-take between the intention and intuition of the designer and the character of the materials he or she uses.

UNITY AND VARIETY

Unity and variety are complementary concerns. *Unity* is the appearance or condition of oneness. In design, unity describes the feeling that all the elements in a work belong together and make up a coherent and harmonious whole. When a work of art has unity, we feel that any change would diminish its quality.



109 Jacob Lawrence.
GOING HOME. 1946.
Gouache.

21½" × 29½".

Private collection, courtesy of DC Moore Gallery, NY. Artwork copyright Gwendolyn Knight Lawrence/Artists Rights Society (ARS), NY.

Variety, on the other hand, provides diversity. Variety acts to counter unity. The sameness of too much unity is boring, and the diversity of uncontrolled variety is chaotic, but a balance between unity and variety creates life.

Artists select certain aspects of visual form in order to clarify and intensify the expressive character of their subjects or themes. In his painting *GOING HOME*, Jacob Lawrence balanced unity and variety. He established visual themes with the lines, shapes, and colors of the train seats, figures, and luggage, and then he repeated and varied those themes. Notice the varied repetition in the green chair seats and window shades. As a unifying element, the same red is used in a variety of shapes. The many figures and objects in the complex composition form a unified design through the artist's skillful use of abstraction, theme, and variation.

Lawrence was known for the lively harmony of his distinctive compositions. Although he worked in





110 Pieter de Hooch.
 INTERIOR OF A DUTCH HOUSE. 1658.
 Oil on canvas. 29" × 35".
 © National Gallery, London.



a manner that may seem unsophisticated, he was always resolving his designs through adjustments of unity and diversity. Lawrence studied other artists' work, and he was influenced by painters who were design problem-solvers. He said, "I like to study the design to see how the artist solves his problems and brings his subjects to the public."²


The flat quality of GOING HOME contrasts with the illusion of depth in Pieter de Hooch's INTERIOR OF A DUTCH HOUSE. Each artist depicted daily life in a style relevant to his times. In both, the painter's depiction of space provides the unity in the composition. De Hooch "borrowed" the unity that architectural interior imposes in order to unify pictorial space and provide a cohesive setting for the interaction of figures.

Pattern refers to a repetitive ordering of design elements. In de Hooch's painting, the patterns of floor tiles and windows play off against the larger rectangles of map, painting, fireplace, and ceiling. These rectangular shapes provide a unifying structure. The nearly square picture plane itself forms the largest rectangle. He then created a whole family of related rectangles, as indicated in the accompanying diagram. In addition, the shapes and colors in the figures around the table relate to the shapes and colors of the figures in the painting above the fireplace—another use of theme and variation.

Alberto Giacometti's sculpture CHARIOT combines diverse elements—a standing female figure and two wheels. Unity is achieved through the thin lines and rough texture in the figure, wheels, and axle, as well as through the use of bronze for the entire piece. The unity of handling leads us to see the sculpture as a single mysterious entity. Our interest is held by the varied components and by the precariousness of the figure poised atop a two-legged table on two wheels. And these bring us to the principle called balance.

BALANCE

For sculptors such as Giacometti, balance is both a visual issue and a structural necessity. The interplay between the opposing forces of unity and variety is a common condition of life. The dynamic process of seeking balance is equally basic in art.

Balance is the achievement of equilibrium, in which acting influences are held in check by opposing forces. We strive for balance in life and in art, and we may lack peace of mind in its absence. In art, our instinct for physical balance finds its parallel in a desire for visual balance. A painting can depict an act of violence or imbalance—a frenzied battle or a fall from a tightrope; however, if the painting is unbalanced, it will lack the expressive power necessary to convince us that the battle was terrible, the fall disastrous. Instead, it will merely convince us that it is not a very good painting. (An interactive exercise on balance can be found on the  *Discovering Art* CD.)

The two general types of balance are symmetrical (formal) and asymmetrical (informal).

Symmetrical Balance

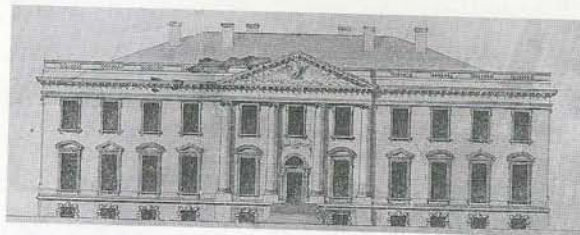
Symmetrical balance is the near or exact matching of left and right sides of a three-dimensional form or a two-dimensional composition.


Architects often employ symmetrical balance to give unity and formal grandeur to a building's facade or front side. For example, in 1792 James Hoban won a competition for his **DESIGN FOR THE PRESIDENT'S HOUSE**, a drawing of a symmetrical, Georgian-style mansion. Today, two centuries and several additions later, we know it as the **WHITE HOUSE**.

Symmetrical design is useful in architecture because it is easier to comprehend than asymmetry. Symmetry imposes a balanced unity, making large complex buildings comprehensible in a glance. Symmetry connotes permanence and poise. We generally want our symbolically important buildings to seem motionless and stable. All the qualities that make symmetry desirable in architecture make it generally less desirable in sculpture and two-dimensional art. Too much symmetry can be boring. Although artists



111 Alberto Giacometti.
CHARIOT. 1950.
Bronze. 57" × 26" × 26½"
(114.8 × 65.8 × 66.2 cm).
The Museum of Modern Art, NY/Licensed
by Scala-Art Resource, NY.
Purchase. Photograph © 2002
The Museum of Modern Art, NY.
© 2002 Artists Rights Society (ARS),
NY/ADAGP, Paris.



112 James Hoban.
 A DESIGN FOR THE PRESIDENT'S HOUSE. 1792.
a. Elevation.
Maryland Historical Society, Baltimore.
b. **WHITE HOUSE**.
Front view. 1997.
Getty Images - The Image Bank. Photograph: Antonio M. Rosario.



113 PORTRAIT OF THE HUNG-CHIH EMPEROR.
Ming Dynasty, 15th Century. Hanging Scroll. Ink and color on silk.
82" × 61".
National Palace Museum, Taipei, Taiwan, Republic of China.

admire symmetry for its formal qualities, they rarely employ it rigidly. Artists usually do not want their work to seem static.

Probably one of the most symmetrical paintings ever made is the PORTRAIT OF THE HUNG-CHIH EMPEROR, executed by an anonymous court artist in fifteenth-century China. The ruler sits stiffly facing us, hands concealed by his rich garments. Only a few asymmetrical dragons on the screen behind him and in the medallions on his cloak relieve the overall rigidity of the composition. Color in the painting is symmetrically placed, yet its richness also serves to lighten the air of formality and reserve. The emperor wanted to convey dignity, permanence, and majesty, and this artist's use of symmetry helps create those impressions.

Asymmetrical Balance

With *asymmetrical balance*, the left and right sides are not the same. Instead, various elements are balanced—according to their size and meaning—around a felt or implied center of gravity. For example, in THE EVENING GLOW OF THE ANDO, the composition as a whole seems balanced, but only because dramatic imbalances are held in check. The strong diagonal of the wall and floor is accented by the heads of the two subjects, one of whom is reading a poem. This diagonal provides the principal focus of the composition. The curves of the water in the upper left have no counterpart except for the curves of the figures at the center. The lightness of the water and the tree branches is balanced by the solidly anchored candle lamp that the other figure is adjusting. The horizontal lines of the alcove and floor mats give a rhythm to the composition which the principal diagonal often interrupts. The artist has engaged and balanced complex energies in a knowing and tasteful way typical of the best Japanese prints. Asymmetrical balance is difficult to achieve, but it is flexible, subtle, and dynamic.

What exactly are the visual weights of colors and forms, and how does an artist go about balancing them? As with design itself, there are no rules, only principles. Here are a few about visual balance:

- A large form is heavier, more attractive, or more attention-getting than a small form. Thus, two or more small forms can balance one large form.
- A form gathers visual weight as it nears the edge of a picture. In this way, a small form near an edge can balance a larger form near the center.
- A complex form is heavier than a simple form. Thus, a small complex form can balance a large simple form.

The introduction of color complicates these principles. Here are three color principles that overturn the three principles of form just given:

- Warm colors are heavier than cool colors. A single small yellow form can therefore balance a large dark blue form.
- Intense colors are heavier than weak or pale colors (tints and shades). Hence, a single small bright blue form near the center can balance a large pale blue form near an edge.
- The intensity, and therefore the weight, of any color increases as the background color approaches its complementary hue. Thus, on a green background, a small simple red form can balance a large complex blue form.

Although guidelines such as these are interesting to study and can be valuable to an artist if she or he gets “stuck,” they are really “laboratory” examples. The truth is that most artists rely on a highly developed sensitivity to what “looks right” in order to arrive at a dynamic balance. Simply put, a picture is balanced when it feels balanced.



114 Suzuki Haranobu.
THE EVENING GLOW OF THE ANDO, from the series
EIGHT PARLOR VIEWS. Edo period. 1766.
Color woodblock print. 11¼" × 8½".
The Art Institute of Chicago. Clarence Buckingham Collection, 1928.900.
Photograph: © 1997, The Art Institute of Chicago. All rights reserved.



115 Nicolas Poussin.
 THE HOLY FAMILY ON THE STEPS. 1648.
 Oil on canvas. 28½" × 44" (72.4 × 111.7 cm).
 © The Cleveland Museum of Art. 2001, Leonard C. Hanna Jr. Fund, 1981.18.

A classic example of balance in Western art is Nicolas Poussin's *HOLY FAMILY ON THE STEPS*. Poussin combined both asymmetrical and symmetrical elements in this complex composition. He grouped the figures in a stable, symmetrical pyramidal shape. The most important figure, the infant Jesus, is at the center of the picture, the strongest position. In case we don't see that right away, Poussin guided our attention by making the traditional red and blue of Mary's robes both light and bright, and by placing Jesus's head within a halolike architectural space.

But then Poussin offset the potential inertness of this symmetry with an ingenious asymmetrical color balance. He placed Joseph, the figure at the right, in deep shadow, undermining the clarity of the stable pyramid. He created a major center of interest at the far left of the picture by giving St. Elizabeth a bright

yellow robe. The interest created by the blue sky and clouds at the upper right counterbalances the figures of St. Elizabeth and the infant John the Baptist. But the final master stroke that brings complete balance is Joseph's foot, which Poussin bathed in light. The brightness of this small, isolated shape with the diagonal staff above it is enough to catch our eye and balance the color weights of the left half of the painting.

While the overall composition of *HOLY FAMILY ON THE STEPS* is balanced asymmetrically, the painting's center of gravity is still the central vertical axis. In *JOCKEYS BEFORE THE RACE* on the other hand, Edgar Degas located the center of gravity on the right. To reinforce it, he drew it in as a pole. At first glance, all our attention is drawn to our extreme right, to the nearest and largest horse. But the solitary

circle of the sun in the upper left exerts a strong fascination. The red cap, the pale pink jacket of the distant jockey, the subtle warm/cool color intersection at the horizon, and the decreasing sizes of the horses all help to move our eyes over the left portion of the picture, where a barely discernible but very important vertical line directs our attention upward.

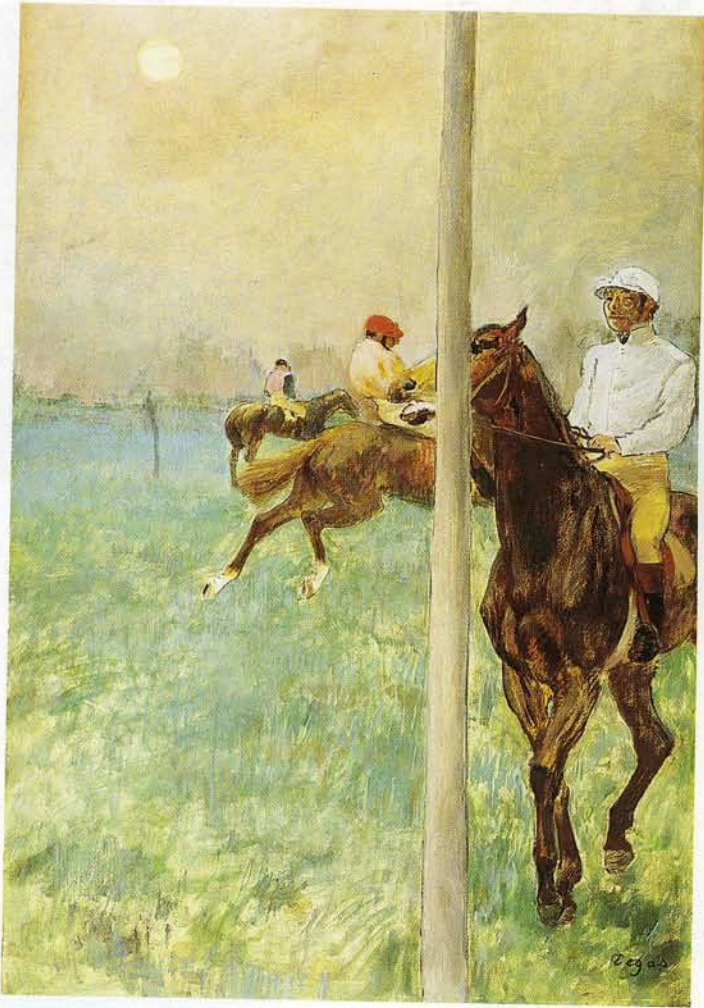
In *JOCKEYS BEFORE THE RACE*, a trail of visual cues moves our attention from right to left. If we are sensitive to them, we will perform the act of balancing the painting. If we are not, the painting will seem forever unbalanced. Degas, who was known for his adventurous compositions, relied on the fact that seeing is an active, creative process and not a passive one.

Notice that both Poussin and Degas used strong diagonals in their designs. In the Poussin, Elizabeth's robe at the lower left begins an implied diagonal line that continues up through the cloud at the upper right. In the Degas, the large horse in the lower right, our first center of attention, is counterbalanced by the sun in the upper left. Diagonal opposition is common in asymmetrical compositions, and looking for it can often help you find the key to the balance.

A good way to explore a picture's balance is to imagine it painted differently. Block out Joseph's light-bathed foot in the Poussin, then see how the lack of balance affects the picture. Cover the jockey's red cap in the Degas and you'll see a spark of life go out of the painting.

Asymmetrical balance in architecture is difficult to show in photographs. In Frank Lloyd Wright's *FALLING WATER* (Chapter 14), we can sense that the asymmetrically placed horizontal forms are firmly held, visually, by the implied gravity of the vertical tower. But what we cannot see is how the play of forms would shift constantly if we were to walk around the house, how the forms maintain a balance that we could see from every angle.

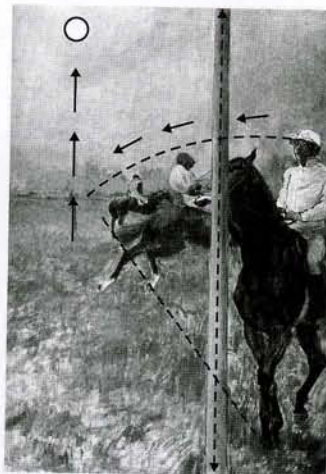
Besides the visual balance we seek in all art, works of sculpture and architecture need structural balance or they will not stand up. Feelings about visual balance are intimately connected to our experience with actual physical balance. It appears that



116 Edgar Degas.

JOCKEYS BEFORE THE RACE. c. 1878–1879.
Oil essence, gouache and pastel. 42½" × 29".

The Barber Institute of Fine Arts, The University of Birmingham/Bridgeman Art Library.



117 Beverly Pepper.
EXCALIBUR. 1975–1976.
San Diego Federal Courthouse.
Steel painted black. 35' × 45' × 45'.
Photograph: Courtesy of the Artist.
Beverly Pepper Studio.



Beverly Pepper designed her large sculpture EXCALIBUR to look somewhat unbalanced as a way of giving an intriguing tension to her soaring diagonal structures. We know the triangular forms are securely attached to the ground, yet they look precarious. If we view the work from this and other angles, the smaller piece seems to provide an anchor—a visual pull that acts as a counterweight to the larger form.

EMPHASIS AND SUBORDINATION

Emphasis is used to draw our attention to an area or areas. If that area is a specific spot or figure, it is called a *focal point*. Position, contrast, color intensity, and size can all be used to create emphasis.

Through *subordination*, an artist creates neutral areas of lesser interest that keep us from being distracted from the areas of emphasis. We have seen them at work in the two paintings we have just examined.

In *HOLY FAMILY ON THE STEPS*, Poussin placed the most important figure in the center, the strongest location in any visual field. In *JOCKEYS BEFORE THE RACE*, Degas took a different approach, using size, shape, placement, and color to create areas of emphasis *away* from the center. The sun is a separate focal point created through contrast (it is lighter than the surrounding sky area and the only circle in the painting) and through placement (it is the only shape in that part of the painting). Sky and grass

areas, however, are muted in color with almost no detail so that they would be subordinate to, and thus support, the areas of emphasis.

DIRECTIONAL FORCES

Like emphasis and subordination, directional forces influence the attention we pay to parts of an artwork. Directional forces are “paths” for the eye to follow provided by actual or implied lines. Implied directional lines may be suggested by a form’s axis, by the imagined connection between similar or adjacent forms, or by the implied continuation of actual lines. Studying directional lines and forces often reveals a work of art’s underlying energy and basic visual structure.

Looking at *JOCKEYS BEFORE THE RACE*, we find that our attention is pulled to a series of focal points: the horse and jockey at the extreme right, the vertical pole, the red cap, the pink jacket, and the blue-green at the horizon. The dominant directional forces in *JOCKEYS* are diagonal. The focal points mentioned above create an implied directional line. The face of the first jockey is included in this line.

The implied diagonal line created by the bodies of the three receding horses acts as a related directional force. As our eyes follow the recession, encouraged by the attraction of the focal points, we perform the act of balancing the composition by correcting our original attraction to the extreme right.

Just as our physical and visual feelings for balance correspond, so do our physical and visual feelings about directional lines and forces. The direction of lines produces sensations similar to standing still (|), being at rest (—), or being in motion (/). Therefore, a combination of vertical and horizontal lines provides stability. For example, columns and walls and horizontal steps provide a stable visual foundation for *HOLY FAMILY ON THE STEPS*. The vertical pole and horizon provide stability in Degas's *JOCKEYS*.

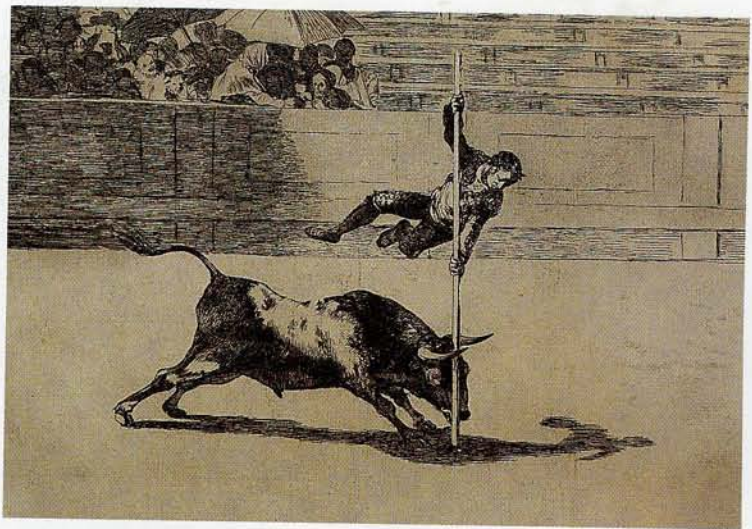
Francisco Goya's print *BULLFIGHT* provides a fascinating example of effective design based on a dramatic use of directional forces. To emphasize the drama of man and bull, Goya isolated them in the foreground as large, dark shapes against a light background. He created suspense by crowding the spectators into the upper left corner.

Goya evoked a sense of motion by placing the bullfighter exactly on the diagonal axis that runs from lower left to upper right (diagram a). He reinforced the feeling by placing the bull's hind legs along the same line.

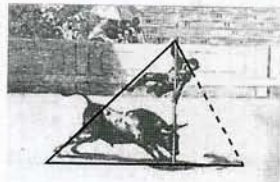
Goya further emphasized two main features of the drama by placing the man's hands at the intersection of the image's most important horizontal and vertical lines. He also directed powerful diagonals from the bull's head and front legs to the pole's balancing point on the ground (a). The resulting sense of motion to the right is so powerful that everything in the rest of the etching is needed to balance it.

By placing the light source to the left, Goya extended the bull's shadow to the right, in order to create a relatively stable horizontal line. The man looks down at the shadow, creating a directional force that causes us also to look. When we do, we realize that the implied lines reveal the underlying structure to be a stable triangle (diagram b). Formally, the triangle serves as a balancing force; psychologically, its missing side serves to heighten the tension of the situation.

The dynamism of the man's diagonal axis is so strong that the composition needed additional balancing elements; thus Goya used light to create two




a.



b.



c.

118 Francisco Goya.
 **BULLFIGHT;**
THE AGILITY AND DARING OF JUANITO
APINANI.
 Plate 20.
 Ashmolean Museum, Oxford, England, U.K.

more diagonals in the opposite direction (diagram c). The area of shadow in the background completes the balance by adding visual weight and stability to the left.

It has taken many words and several diagrams to describe the visual dynamics that make the design of Goya's etching so effective. However, our eyes take it in instantly. Good design is efficient; it communicates its power immediately.



119 LUSTER-PAINTED BOWL.
Hispano-Moresque, Manises. Spain. c. 1400.
Tin-glazed earthenware painted in cobalt blue and luster.
Height 5½", diameter 17¼" (E643).
Courtesy of the Hispanic Society of America, NY.

CONTRAST

Contrast is the juxtaposition of strongly dissimilar elements. Dramatic effects can be produced when dark is set against light, large against small, bright colors against dull. Without contrast, visual experience would be monotonous.

Contrast can be seen in the thick and thin areas of a single brush stroke. It can also be seen in the juxtaposition of regular geometric and irregular organic shapes, or in hard (sharp) and soft (blurred) edges. Contrast can provide visual interest, emphasize a point, and express content.

In the LUSTER-PAINTED BOWL, for example, the gold luster contrasts strongly with the blue accents. There is also a great deal of contrast among the eight petal-shaped segments that radiate from the central starburst. These segments are divided and decorated quite differently, creating a richly varied surface. Four of the petals have a blue tree shape, which evokes the idea of paradise described in the Quran, the Muslim holy book. They provide the major rhythm of the composition, while the other four

petals alternate between a simple zigzag and a doubled tree separated by a band. After a moment's look, we realize that the vivid and rich contrasts of this piece are subjected to a rigorous balancing scheme based on the repetition of radiating shapes. This discovery soon gives way to admiration for the designer's ability to harmonize such disparate elements.

REPETITION AND RHYTHM

The repetition of visual elements give a composition unity, continuity, flow, and emphasis. As we saw earlier, de Hooch's INTERIOR OF A DUTCH HOUSE (page 74) is organized around the repetition of rectangular shapes.

In Raphael's MADONNA OF THE CHAIR, curved shapes echo the circular format of the painting. The curve of the edge of the painting is repeated in the curve of Mary's head, shoulder, and arm, and in the interlocking curve of the infant Jesus. The repeated curves provide flow and continuity, while the vertical axis of the chair post stabilizes the curving directional forces that dominate the composition.

In the visual arts, *rhythm* is created through the regular recurrence of elements with related variations. Rhythm refers to any kind of movement or structure of dominant and subordinate elements in sequence. We generally associate rhythm with temporal arts such as music, dance, and poetry. Visual artists also use rhythm, as an organizational and expressive device.

Japanese artist Ogata Korin used repetition and rhythm to charming effect in CRANES, one of a pair of folding screens. The landscape is a flat yet opulent background of gold leaf, interrupted only by a suggestion of a curving stream. The birds are severely simplified, their bodies and legs forming a pattern that is repeated with variations. The heads and beaks of the cranes create a strong directional force to our left, leading the eye to an ironically empty rectangle. The heads are held high, and their location near the top of the composition enhances this loftiness, making the birds seem pretentious. Their procession in marching steps in a seemingly straight line supports this note of humor.



120 Raphael Sanzio.
MADONNA OF THE CHAIR. c. 1514.
Oil on wood. Diameter 2'4".
Pitti Gallery, Florence, Italy.
Photograph: Scala/Art Resource, NY.

121 Ogata Korin.
CRANES, c. 1700. Edo period.
Ink, color, and gold on paper, 65 $\frac{3}{8}$ " \times 146 $\frac{1}{8}$ ".
Freer Gallery of Art, Washington, DC. Purchase, F1956.20.





122 José Clemente Orozco.
 ZAPATISTAS. 1931.
 Oil on canvas. 45" × 55" (114.3 × 139.7 cm)
 The Museum of Modern Art, New York. Anonymous gift.
 Photograph © 2002 The Museum of Modern Art, New York. © Orozco Valladares Family.
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A strong rhythm dominates José Clemente Orozco's *ZAPATISTAS*. The line of similar, diagonally placed figures grouped in a rhythmic sequence expresses the determination of oppressed people in revolt. The rhythmic diagonals of their hat brims, bayonets, and swords all contribute to a feeling of action. In fact, diagonal lines dominate the entire composition.

SCALE AND PROPORTION

Scale is the size relation of one thing to another.
Proportion is the size relationship of parts to a whole.

Scale is one of the first decisions an artist makes when planning a work of art. How big will it be? We experience scale in relation to our own size, and this experience constitutes an important part of our response to works of art.

We see many relationships in terms of scale. You have probably noticed that when a short person stands next to a tall person, the short one seems shorter and the tall one taller. Their relationship exaggerates the relative difference in their heights. In the diagram *SCALE RELATIONSHIPS*, the inner circles at the center in both

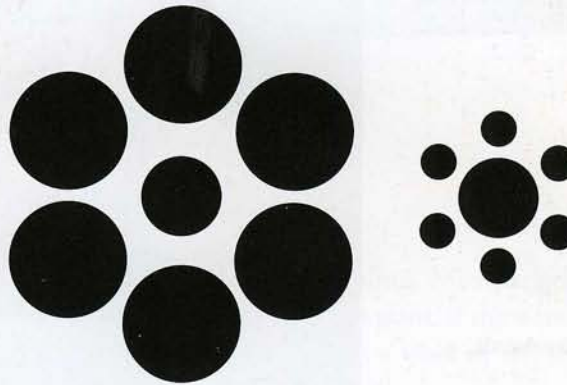


123 Claes Oldenburg and Coosje van Bruggen.
 SHUTTLECOCKS. 1994. One of four.
 Aluminum, fiberglass-reinforced plastic,
 and paint, 215 $\frac{3}{4}$ " \times 209" \times 191 $\frac{3}{4}$ "
 The Nelson-Atkins Museum of Art, Kansas City, MO.
 Purchase: acquired through the generosity of the Sosland Family. F94-1/1.
 Photograph: Jamison Miller.

groups are the same size, but they appear to be quite different.

Claes Oldenburg and Coosje van Bruggen's SHUTTLECOCKS is a contemporary example of distortion of scale. The artists arrayed four huge metal shuttlecocks on the lawns outside the north and south façades of the Nelson-Atkins Museum of Art in Kansas City, Missouri. Each is an outlandish seventeen feet high and weighs over 5,000 pounds. Since badminton is played on grass, it appears that the shuttlecocks fell during a game among giants who used the museum as a net. SHUTTLECOCKS thus uses distortion of scale to poke gentle fun at the museum, mocking its rather prim look with a playfully irreverent attitude.

When the size of any work is modified for reproduction in a book, its character changes. The sizes of almost all the art objects in this book have been changed to fit the photographic reproductions of them on the pages. One of the few exceptions is Rembrandt's SELF-PORTRAIT IN A CAP. This tiny etching, which the artist did when he was twenty-four years old, is reproduced here the actual size of the original print. It captures a fleeting expression of intense surprise. At this scale, it reads as an intimate notation of human emotion. On the other hand,



124 SCALE RELATIONSHIPS.



125 Rembrandt van Rijn.
 SELF-PORTRAIT IN A CAP, OPEN
 MOUTHED AND STARING. 1630.
 Etching, 2" \times 1 $\frac{7}{8}$ ".
 Copyright The British Museum.

126 Michelangelo Buonarroti.

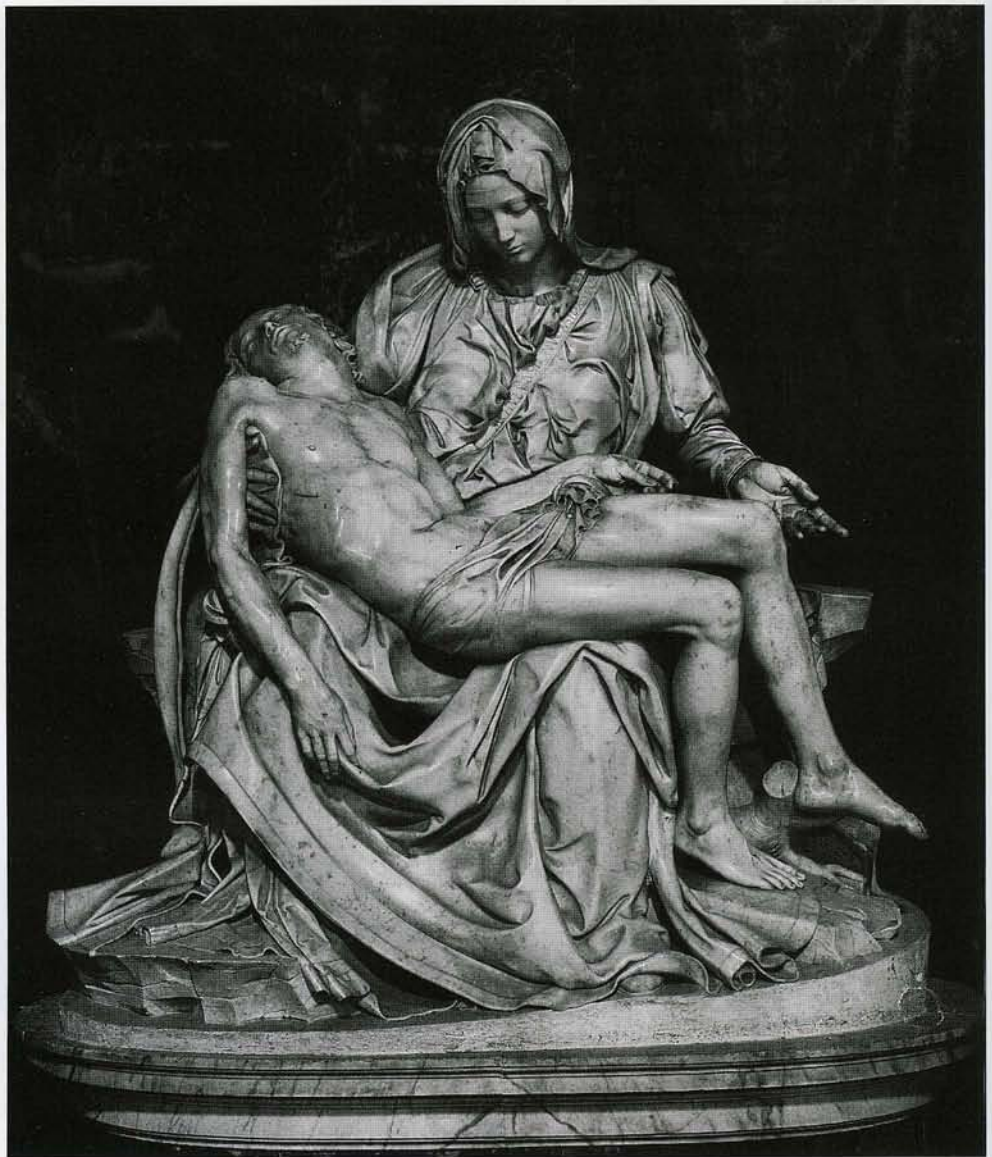


PIETÀ. 1501.

Marble. Height 6'8½".

St. Peter's Basilica, Vatican State.

© Alinari/Art Resource, NY.



many large-sized works have been reduced in this book to tiny fractions of their actual sizes, thereby altering their impact. Because works of art are distorted in a variety of ways when they are reproduced, it is important to experience original art whenever possible.

The term *format* refers to the size and shape—and thus to the scale and proportion—of a two-dimensional picture plane, such as a piece of paper, a canvas, a book page, or a video screen. For example, the format of this book is a vertical 8½ by

11-inch rectangle, the same format used for computer paper and most notebooks. Three common formats favored by traditional painters in China and Japan have been the long horizontal handscroll, the tall, vertical hanging scroll, and the fan. The circular or “tondo” format was used during the Renaissance by Raphael (see page 83) and others. Some recent artists have used huge formats.

The format an artist chooses affects the total composition (design) of a particular work. Matisse made this clear in his *Notes of a Painter*:

127 Master of the Beautiful Madonna.
PIETÀ. c. 1415.
Polychromed stone.
St. Mary's Church, Gdansk, Poland.
Photograph: Ryszard Petrajtis.



Composition, the aim of which should be expression, is modified according to the surface to be covered. If I take a sheet of paper of a given size, my drawing will have a necessary relationship to its format. I would not repeat this drawing on another sheet of different proportions, for example, rectangular instead of square.³

Size relationships within a work of art often express symbolic meaning. The use of unnatural proportions to show the relative importance of figures is called *hierarchical scale*. In Egyptian art, the relative importance of figures in a composition often dictates their size, so that rulers appear much larger than servants or captives.

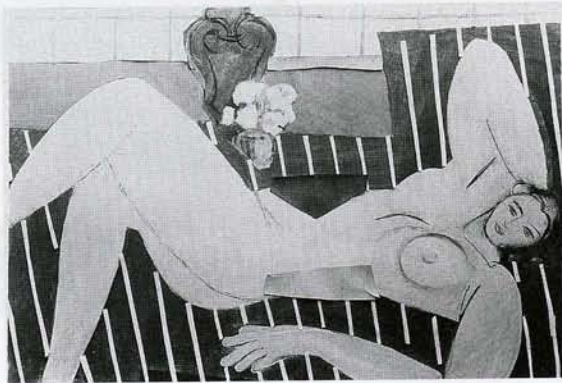
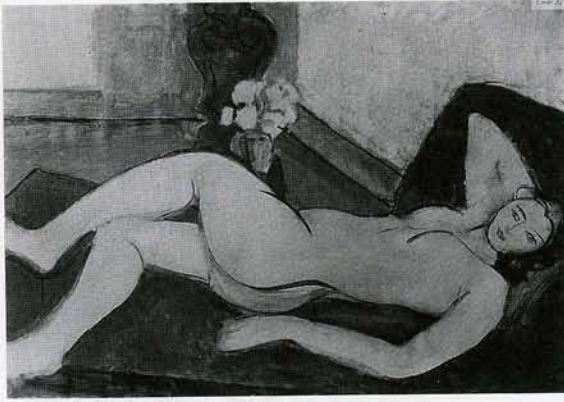
Change in proportion can make a major difference in how we experience a given subject. This becomes apparent when we compare two *pietàs* (*pietà*, Italian for “pity,” refers to a depiction of Mary holding and mourning over the body of Jesus).

Creating a composition with an infant on its mother’s lap is much easier than showing a fully grown man in such a position. In his most famous *PIETÀ*, the young Michelangelo solved the problem by dramatically altering the human proportions of Mary’s figure. Michelangelo made the heads of the two figures the same size but greatly enlarged Mary’s body in relation to that of Christ, disguising her immensity with folds of drapery. Her seated figure spreads out to support the almost horizontal curve of Christ’s limp body. Imagine how the figure of Mary

would appear if she were standing. Michelangelo made Mary’s body into that of a giant; if she were a living human being rather than a work of art, she would stand at least eight feet tall!

Because the proportions of the figure of Christ are anatomically correct and there are abundant naturalistic details, we overlook the proportions of Mary’s figure; yet the distortion is essential to the way we experience the content of the work.

Compare Michelangelo’s work with another *PIETÀ*, created almost a century earlier by an unknown sculptor. In the earlier work, the proportions are true to life, yet at first they seem unnatural. Christ’s body appears to stick out awkwardly, without support. The sense of discomfort caused by the more normal proportions emphasizes the grief and tension appropriate to the subject. Such emphasis on suffering contrasts with the serenity of Michelangelo’s design.



128 Henri Matisse.
 Photographs of three states of *LARGE RECLINING NUDE*.
 a. State I, May 3, 1935.
 b. State IX, May 29, 1935.
 c. State XII, September 4, 1935.
 The Baltimore Museum of Art. The Cone Collections.
 © 2002 Succession H. Matisse, Paris/Artists Rights Society (ARS), NY.

DESIGN SUMMARY

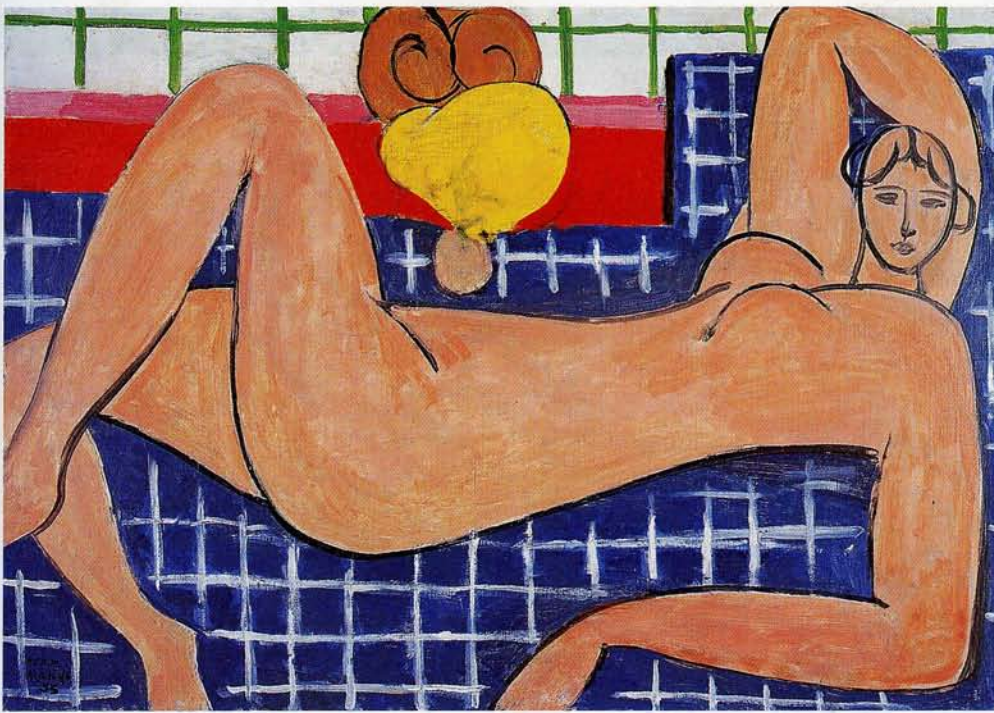
A finished work affects us because its design seems inevitable. However, design is not inevitable at all. Faced with a blank piece of paper, an empty canvas, a lump of clay, or a block of marble, an artist begins a process involving many decisions, false starts, and changes in order to arrive at an integrated whole. This chapter has presented some of the principles of design that guide the art-making process.

By photographing the progress of his painting *LARGE RECLINING NUDE*, Henri Matisse left us a rare record of the process of designing. He took twenty-four photographs over a period of four months; three of them are reproduced here.

The first version (State 1) is by far the most naturalistic: The proportions of the model's body on the couch and the three-dimensional space of the room seem ordinary. This stage of the work shows the traditional rules of picture construction, but this is only the start of a fascinating journey.

By State 9, Matisse had introduced a number of bold changes. Because the model's head and crooked right arm did not give the proper weight to that side of the composition, he greatly enlarged the arm. He added more curves to the torso, and he put the legs together to provide a balancing element on the left side. The space of the room now has a new look because he removed the diagonal; this change flattened the composition, highlighting its two-dimensional design. The model's left arm is now closer to a ninety-degree angle, which makes it seem to support more weight; this is a stronger effect than that of the rubbery arm in the first photo. The boldest change regards the couch. Now it is far larger, with vertical white stripes in a rhythmic pattern. Since the stripes are parallel, they do not function as perspective lines; rather, the couch appears to be tipped toward us. Matisse kept the potted flowers and the chair, but he simplified the chair and placed the flowers on the couch.

By the time the artist took our third photograph (State 12), he had introduced even more changes, to compensate for some of the bold effects he had introduced earlier. The model's head is larger and placed upright, so that it fits better into the



129 Henri Matisse.
 LARGE RECLINING NUDE.
 1935.
 Oil on canvas, 26" × 36½"
 (66 × 92.7 cm).
 The Baltimore Museum of Art: The Cone
 Collection, formed by Dr. Claribel Cone
 and Miss Etta Cone of Baltimore,
 Maryland. BMA 1950.258.
 © 2002 Succession H. Matisse,
 Paris/Artists Rights Society (ARS), NY.

shape of the raised arm. He simplified the curves of the torso and created a new position for the left arm, a compromise between its position in the first photo and the second one. The legs are now almost a unit, their bulky mass balancing the verticals and diagonals on the right. He added horizontal lines to the couch, making a pattern of squares that parallel the framing edges of the painting. This net-like motif is repeated in the larger squares on the back wall of the room. The composition is already interesting, but Matisse did not stop here.

The final version shows further refinements and a few discoveries. Because the model's left arm probably still seemed weak, Matisse finally fixed it in the corner of the work at a strong angle aligned with the picture frame. The head is smaller, because the new position of the arms provides enough visual weight on that side of the work. He intensified the pattern on the back wall, so that it now serves as a variation of the motif on the couch.

He gave new functions to the shapes and lines of the chair back and flowers by emphasizing their curves. They now echo the shapes of the body and balance the rigidity of the squares in the couch and wall. The position of the legs is the biggest change. By moving one of them down, he created a "pinwheel" effect that the arms carry through, adding a new circular element to the design of the whole. Finally, he repositioned the model's entire body at a slight angle from the horizontal.

Matisse's keen sense of design and restless experimentation produced a work in which powerful forces in the composition are balanced with seemingly simple means. He wrote that the expressiveness of a work does not rest merely on facial expressions or gestures of figures:

The entire arrangement of my picture is expressive: the place occupied by the figures, the empty spaces around them, the proportions, everything has its share.⁴

WHEN FRENCH artist Henri Matisse was eighteen years old, his father sent him to Paris to study law. A year later he passed his examinations and took a dull job as a clerk in a lawyer's office. Then an attack of appendicitis changed the direction of his life. During the long convalescence at his parents' home, his mother tried to amuse him with a gift of a box of paints, brushes, and a do-it-yourself book on painting. The result was extraordinary. By the age of twenty-one, Matisse knew he wanted to be a painter. He returned to Paris and became a full-time art student. In the methodical manner of a lawyer, he began his artistic career by becoming thoroughly proficient in the traditional techniques of French art. Throughout his life he worked at adding to both his knowledge and his skills, while being careful to preserve his original freshness of vision.

For Matisse, a painting was a combination of lines, shapes, and colors before it was a depiction of nameable objects. His personal style was based on intuition; yet he acknowledged the importance of his years of study. He carefully assimilated influences from the arts of the Near East and Africa and from other painters.

Matisse's primary interest was to express his passion for life through the free use of visual form, with the human figure his main subject.

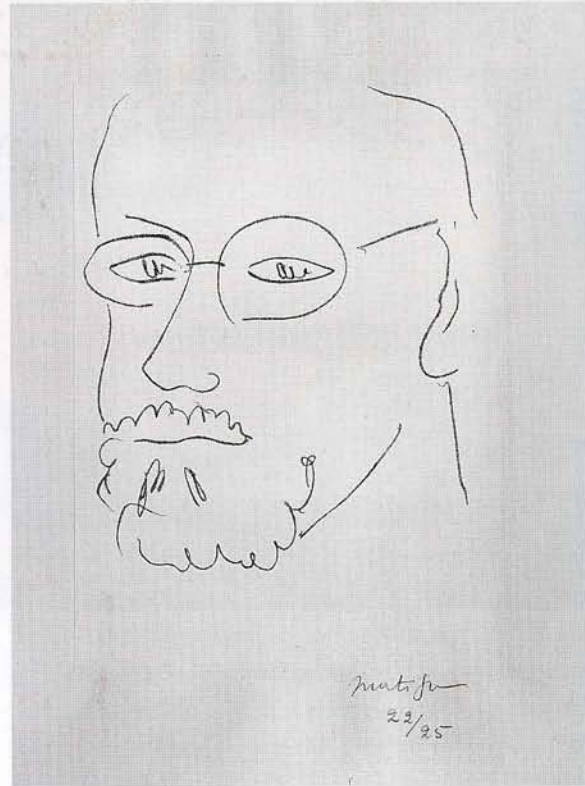
What interests me most is neither still life nor landscape but the human figure. It is through it that I best succeed in expressing the nearly religious feeling that I have towards life.⁵

His search for expressive means caused him to question or abandon many of the "rules" of art as it was then understood. For example, he often used colors that did not correspond to what the eye sees, but rather to what he felt inside. He also simplified and flattened his compositions, because he felt that adding too much detail took away feeling. For these and other innovations in painting style, he was once called a "wild beast"—*fauve* in French. The name stuck, and Fauvism took its place among the most important modern art movements.

Matisse sought to hide his own artistic struggles so that his work would appear effortless and light. He was concerned, however, that young people would think he had created his paintings casually—even carelessly—and would mistakenly conclude that years of disciplined work and study were unnecessary.

We find evidence of Matisse's sense of delight throughout most of his work—even his self-portrait has a congenial, playful quality.

The dominant qualities in Matisse's art are lyric color and vitality. Behind the playful appearance lie ra-



130 Henri Matisse.
 SELF-PORTRAIT, THREE-QUARTER VIEW. 1948.
 Lithograph printed in black composition. 9 $\frac{1}{16}$ " \times 7 $\frac{3}{16}$ "
 (23 \times 18.3 cm).

The Museum of Modern Art, NY/Licensed by Scala-Art Resource, NY. The Curt Valentin Bequest. Photograph © 2002 The Museum of Modern Art, NY. © 2002 Succession H. Matisse, Paris/Artists Rights Society (ARS), NY.

diant big-heartedness, grace, and wisdom. Although he lived through both world wars and was

aware of acute suffering, Matisse chose to express joy and tranquility in his art.

What I dream of is an art of balance, of purity and serenity, devoid of troubling or depressing subject matter, an art which might be for every mental worker . . . businessman or writer, like an appeasing influence, like a mental soother, something like a good armchair in which to rest from physical fatigue.⁶