

► **FIGURE 5.1** Without even looking at the title, you can identify this familiar object because of the shapes used. In what way is this work “larger than life”? If you are not sure of the answer, review the credit line below. Compare and contrast this work to another sculpture by the same artist on page 261. Can you draw any conclusions about the theme of his work from these two pieces?

Claes Oldenburg. *Shoestring Potatoes Spilling from a Bag*. 1966. Canvas, kapok, glue, and acrylic. 274.3 × 116.8 × 106.7 cm (108 × 46 × 42”). Walker Art Center, Minneapolis, Minnesota. Gift of T. B. Walker Foundation, 1966.



Shape, Form, and Space

You live in a world filled with objects. Each has a shape; some have form—or *depth*—and all inhabit space. As art elements, shape, form, and space are closely related to one another. Learning to “read” the meaning of these elements as well as how to use them effectively in artworks is very important as an artist.

In this chapter, you will:

- Compare and contrast the use of form and space in artworks.
- Create two- and three-dimensional works of art using direct observation and imagination.
- Interpret artistic decisions about using shapes, forms, and space in personal artworks.

Focus on Art History Up through the early twentieth century, the media of sculpting were fairly limited. Sculptors could choose from hard materials (marble, bronze) or softer ones (wood). Then a revolution in art occurred. “Anything goes” became the battle cry of experimental artists. One such artist is Swedish-born American sculptor Claes Oldenburg (b.1929). Oldenburg is a member of the Pop Art school. His art, like that of other Pop Artists, used everyday objects from American culture as a theme. Like **Figure 5.1**, however, the works are so large that the viewer can’t help but notice them.

Compare and Contrast. Look at Figure 2.1 on page 24. This work shares the theme of contemporary Pop Art. Like Figure 5.1, this work uses unconventional materials. In what way does it go even further in breaking the traditional “rules” of three-dimensional art?

Vocabulary

shape
geometric shapes
free-form shapes
forms

Shapes and Forms

All objects are either shapes or forms. Rocks, puddles, flowers, shirts, houses, chairs, and paintings are all shapes and forms. The words *shape* and *form* are often used interchangeably in everyday language, but in the language of art, they have very different meanings.

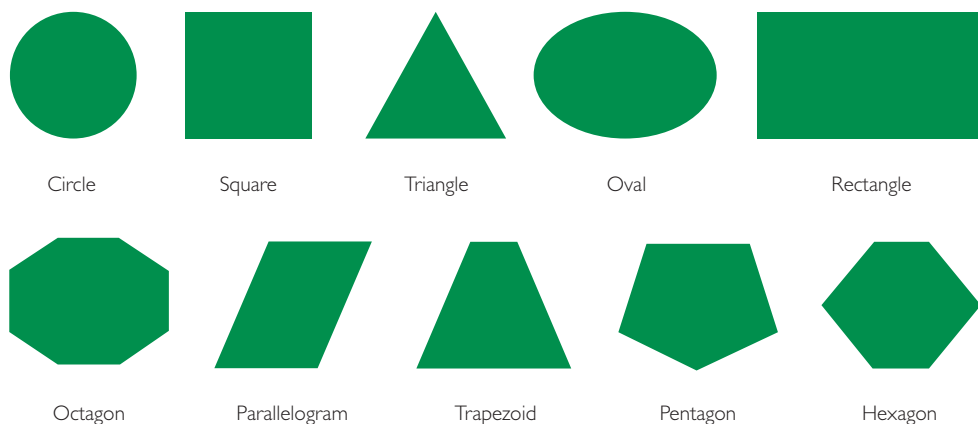
Shape

A **shape** is a two-dimensional area that is defined in some way. A shape may have an outline or a boundary around it, or you may recognize it by its area. For instance, if you draw the outline of a square on a sheet of paper, you have created a shape. You could also create the same shape without an outline by painting the area of the square red.

You see many two-dimensional shapes every day. They are found in most designs, which in turn can be seen on many flat surfaces. Look for shapes on such things as floor coverings, fabrics, and wallpapers. Floors and walls are two-dimensional shapes; so are tabletops, book pages, posters, and billboards. The images you create with your computer and the images in the handheld and computer games you play may have the illusion of depth, but they are also two-dimensional shapes.

Geometric Shapes

All shapes can be classified as either *geometric* or *free-form*. **Geometric shapes** are *precise shapes that can be described using mathematical formulas (Figure 5.2)*. The basic geometric shapes are the circle, the square, and the triangle. All other geometric shapes are either variations or combinations of these basic shapes. Some of the variations include the oval, rectangle, parallelogram, trapezoid, pentagon, hexagon, and octagon.



▲ **FIGURE 5.2** Geometric shapes.

Geometric shapes are used for decoration, uniformity, and organization. Notice the decorative quality of the geometric shapes in the artwork shown in **Figure 5.3**. How many different simple and complex geometric shapes can you find in Biggers' painting?

Road signs are examples of uniformity. The same kind of sign must always have the same shape. Do you know the shape of a stop sign? Which shape is used for "Yield"? Which shape is used for TV screens? Why do you think ceiling tiles and window panes have geometric shapes?

Free-Form Shapes

Free-form shapes are *irregular and uneven shapes*. Their outlines may be curved, angular, or a combination of both. They often occur in nature. Another word that may be used to describe free-form shapes is *organic*. Organic is used when we talk about the shapes that are silhouettes of living things such as animals, people, or trees. Look at the difference between the decorative patterns of geometric shapes in Figure 5.3 and the free-form, organic shapes painted on the vases in **Figure 5.4**. Which looks more organized?



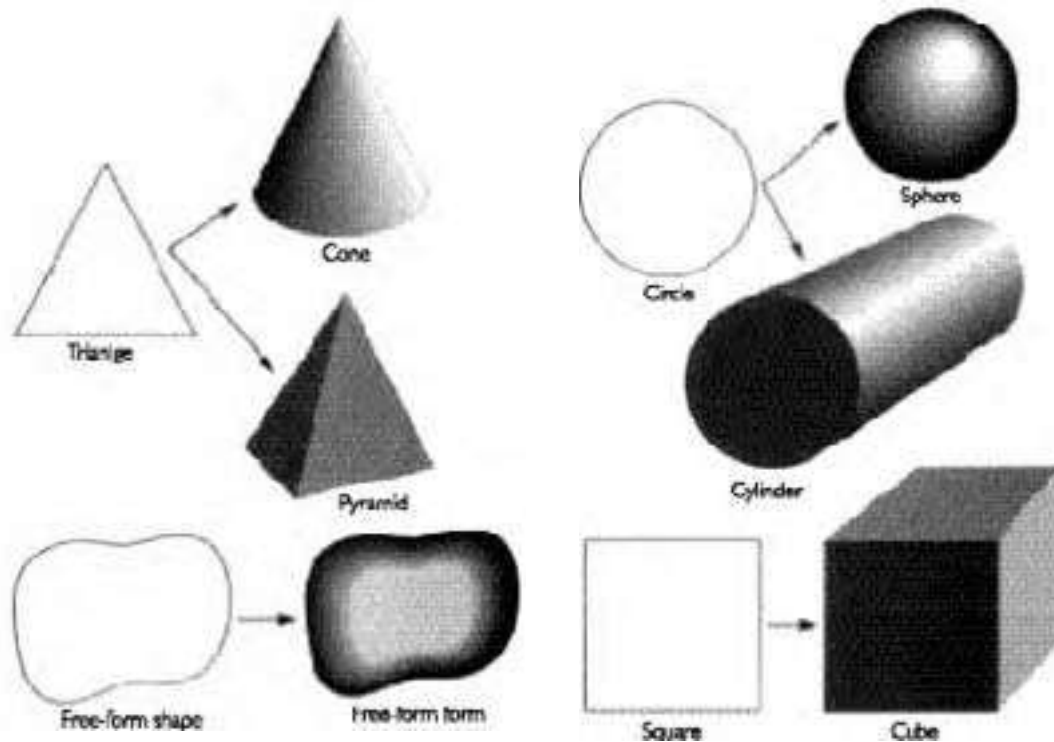
▲ **FIGURE 5.3** Biggers uses the women in this work to represent the African civilizations of Egypt, Benin, and Dogon. The crowns are symbols of these civilizations. The cloth on their laps represents the geometry that has brought order to each culture.

John Biggers. *Starry Crown*. 1987. Acrylic, mixed media on Masonite. 155 × 124.5 cm (61 × 49"). Dallas Museum of Art, Dallas, Texas. Museum League Purchase Fund.



◀ **FIGURE 5.4** Notice the free-form, organic qualities of the dragons and clouds that were painted on this matching pair of vases. Although the forms of the vases are perfectly matched, the paintings are not exactly alike. Look closely to find the differences between the two dragons.

Chinese, *Pair of Vases*. 1426–1435. Ming Dynasty (1368–1644). Porcelain with underglaze blue decoration. 55.2 × 29.2 cm (21¾ × 11½"). The Nelson-Atkins Museum of Art, Kansas City, Missouri. Purchase: Nelson Trust, 40-45/1,2.



▲ **FIGURE 5.5** What kind of relationship do you see between the two-dimensional shapes and three-dimensional forms?

Activity

Geometric and Free-Form Shapes

Demonstrating Effective Use of Art Media in Design. Using the printed areas of a newspaper, make two cut-paper designs. Make one design by measuring and cutting precise geometric shapes. Make the second design by tearing free-form shapes. Arrange the shapes and glue them on a sheet of black construction paper. Use a white crayon to print the words *free-form* and *geometric* on the appropriate design. Try to make the letters for *geometric* look geometric, and the letters for *free-form* look free-form.

Computer Option. Use the Shape or Straight Line tools to draw four different geometric shapes. Do not overlap the shapes and space them apart so they can easily be selected and arranged later. Choose a color scheme and make each shape a solid color. Pick the Selection tool and then the Copy and Paste menu to repeat each of the shapes several times on the page. When the page is nearly full, choose a Brush or Pencil tool to draw free-form shapes in between the geometric shapes. Select the Bucket tool to fill these shapes with pattern.

Forms

Although the words *shape* and *form* are often used interchangeably in everyday language, they have different meanings in the language of art. **Forms** are *objects having three dimensions*. Like shapes, they have both length and width, but forms also have depth. *You* are a three-dimensional form; so is a tree or a table.

Two-dimensional shapes and three-dimensional forms are related (**Figure 5.5**). The end of a cylinder is a circle.

One side of a cube is a square. A triangle can “grow” into a cone or a pyramid.

Like shapes, forms may be either geometric (**Figure 5.6**) or free-form (**Figure 5.7** on page 102). Geometric forms are used in construction, for organization, and as parts in machines. Look around you. What forms were used to build your school, your church, your home? Look under the hood of a car. What forms were used to build the motor? Did you know that common table



▲ **FIGURE 5.6** The inspiration for this work came from Smith’s studies of geometric crystalline forms in the early 1960s. The title, a pun on the insect it resembles, is based on the mythical beast of the same name in James Joyce’s *Finnegan’s Wake*. This is one of Smith’s most complex sculptures. It took him eight years to see it to completion. The six separately constructed, geometric steel units were assembled on the museum’s lawn in 1972.

Tony Smith, *Gracehopper*. 1971. Welded steel and paint. Height: 7 m (23'). The Detroit Institute of Arts, Detroit, Michigan. Founders Society Purchase with other funds.



▲ **FIGURE 5.7** An Inuit artist carved this free-form, organic sculpture of a polar bear from memories of personal experiences observing and hunting polar bears. Compare and contrast the forms of this sculpture from Inuit culture to the forms of Tony Smith's minimalist sculpture in Figure 5.6.

Ashevak Adla. *Walking Bear*. Serpentine stone. 14 × 34.3 × 13.3 (5½ × 13½ × 5¼"). Courtesy of Canadeau Gallery, Quebec, Canada.

salt is made of a series of interlocking cubes? You can see these cubes when you look at salt through a microscope.

Free-form forms are irregular and uneven three-dimensional objects such as stones, puddles, and clouds. Your own body and the bodies of animals and plants are free-form forms.



1. List three geometric shapes.
2. What is another word for *free-form* shapes?
3. Compare and contrast the use of form in the artworks in this lesson.

Activity

Creating Forms

Applying Your Skills. Make a flat sheet of construction paper into a three-dimensional paper sculpture by using cutting and scoring techniques. (See Technique Tip 20 on page 435 in the Handbook.) Give your sculpture a minimum of five different surfaces. Do not cut the paper into separate pieces. Use only slots and tabs if you wish to join any parts. Experiment with scratch paper before you make your final paper sculpture.

Computer Option. Use the Round Shape tool to draw a circle or oval on the screen. Choose the Airbrush to gently add shading around the edges to make the shape appear as a solid form. Draw a free-form shape. Apply shading with the airbrush to represent a form. Consider adding a surface for the three-dimensional forms to sit on and then apply shadows.

Space

Space refers to both outer space and inner space. Rockets move through outer space to explore other planets. People move through the inner space of rooms and buildings. Space can be flat and two-dimensional, such as the space of a window. Space can also be three-dimensional, such as the space filled with water in a swimming pool.

Space and Its Relationship to Shape and Form

Shapes and forms exist in space. **Space** is *the element of art that refers to the emptiness or area between, around, above, below, or within objects*. All objects take up space. You, for example, are a living, breathing form moving through space.

Shapes and forms are defined by the space around and within them. They depend on space for their existence. This is why it is important to understand the relationship of space to shapes and forms.

Positive and Negative Spaces

In both two- and three-dimensional art, the shapes or forms are called the *positive space* or the *figure*. The empty spaces between the shapes or forms are called *negative spaces* or *ground*. Look at **Figure 5.8** and read the caption for an example of figure and ground. In a portrait, the image of the person is the positive space; the negative space is the area surrounding the person.



◀ **FIGURE 5.8** Do you see a vase or do you see two profiles of Picasso? Johns has deliberately organized this lithograph as a visual puzzle to confuse the viewer. One minute the faces are very clear and they seem to be the figure while the space between the profiles is the ground. The next moment the vase between the profiles becomes the figure and the space around the vase becomes the ground.

Jasper Johns. *Cups 4 Picasso*. 1972. Lithograph. 57.2 × 82 cm (22½ × 32¼"). Museum of Modern Art, New York, New York. Gift of Celeste Bartos. © Jasper Johns/Licensed by VAGA, New York, NY.

Vocabulary

space
holograms



▲ **FIGURE 5.9** In this sculpture, Brancusi uses the lack of space between the two figures to symbolize the concept of the togetherness, the unity, of a couple in love. Compare and contrast the ways these forms are balanced with the artwork in Figure 5.6 on page 101.

Constantin Brancusi. *The Kiss*. c. 1908. Stone. Height 50.2 cm (19³/₄").
Musée National d'Art Moderne, Centre Georges Pompidou, Paris, France.
© 2003 Artists Rights Society (ARS), New York/ADAGP, Paris.

The shape and size of negative spaces affect the way you interpret positive spaces. Large negative spaces around positive spaces may express loneliness or freedom. When the positive spaces are crowded together, you may feel tension or togetherness (**Figure 5.9**). The full meaning of a work depends on the interaction between the positive and negative spaces. It is not always easy to tell which are the positive spaces and which are the negative spaces in two-dimensional art. Sometimes it is difficult to identify the negative space. This is because some artists give equal emphasis to both the figure and the ground.

Sometimes artists even try to confuse the viewer. They create positive and negative spaces that reverse themselves while you are looking at them. These visual puzzles fascinate some viewers (**Figure 5.10**).

Activity

Experimenting with Space

Creating Visual Solutions Using Direct Observation. Select a group of objects to draw from direct observation. Make an arrangement with a variety of negative spaces between the shapes. Draw the arrangement lightly with pencil or chalk. Finish the work by (a) coloring only the negative spaces with crayons or paint, or (b) filling the negative spaces with closely drawn sets of parallel lines. Leave the positive spaces empty. What shapes did the negative spaces take?

Computer Option. Use the Rectangle shape tool to draw a solid rectangle approximately 3" x 4" in the center of the screen. Explore the different shapes of Selection tools to select and move parts of the rectangle away from the original shape. Continue selecting and moving until the rectangle has been broken into many smaller parts with varying spaces in between. Save and title your work when you have created an interesting composition by adding space within the form.

MEET THE ARTIST

M. C. ESCHER



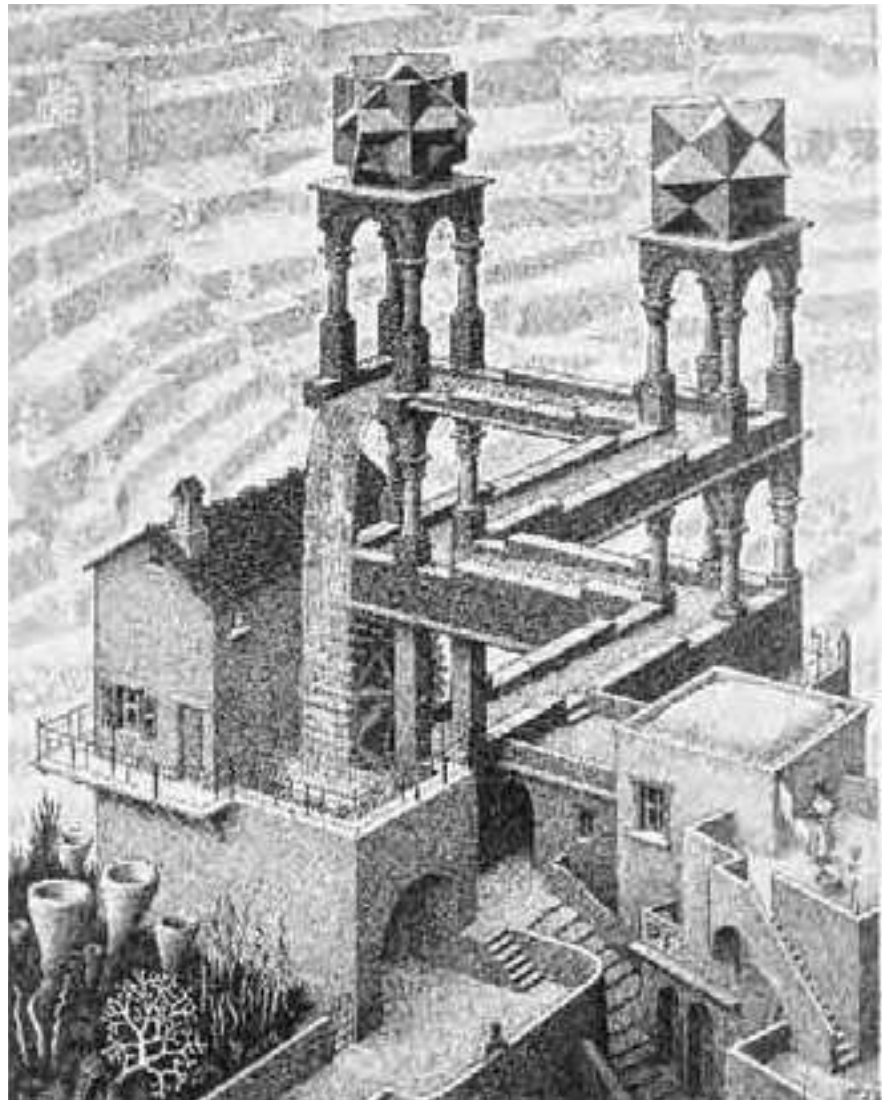
Dutch, 1898–1972

Portrait of M. C. Escher. © 1998
Cordon Art, Baarn, Holland.
All rights reserved.

Born in Leeuwarden, Holland, M. C. Escher (**esh-ur**) studied graphic art at Harlem's School of Architecture and Ornamental Design. He concentrated on illustrating his eccentric inner visions and his fascination with the laws of nature. In his lithographs, he explored a variety of visual jokes and trickery, such as optical illusions and distorted or impossible perspective.

Escher's works achieve their visual puzzles through his clever manipulation of positive and negative space. They skillfully switch forms into places where the viewer would logically expect space, or what appears to be the outer surface of an object reverses into an inner space.

Escher also created designs using positive and negative space to transform one object to another. A flock of birds on the left side of the picture becomes a school of fish on the right side. Each time a change takes place, the negative space becomes dominant and transforms into the new object.



► **FIGURE 5.10** At first this print looks normal. Water is falling to turn a water wheel. However, follow the water from the base of the fall. It runs uphill! Escher has created a visual puzzle using the mathematics of perspective.

M. C. Escher. *Waterfall*. 1961.
Lithograph. © 1998 Cordon Art,
Baarn, Holland. All rights reserved.

Space in Three-Dimensional Art

Over, under, through, behind, and around are words that describe three-dimensional space. Architecture, sculpture, weaving, ceramics, and jewelry are three-dimensional art forms. They all take up real space. You can walk around, look through, look behind, peer over, and reach into three-dimensional art.



▲ **FIGURE 5.11** The interior of this cathedral was designed so that the stained glass and the vertical columns would pull your eyes upward toward the heavens.

Reims Cathedral (interior). Reims, France. Begun c. 1225.

Architects shape space. They design structures that enclose a variety of spaces for people. They create large spaces for group activities, such as the one you see in **Figure 5.11**. They also create small spaces for privacy. Landscape architects and city planners are also involved in planning spaces for people to use.

Negative areas in three-dimensional art are very real. Most three-dimensional works are meant to be *freestanding*, which means they are surrounded by negative space (**Figure 5.12**). The viewer must move through this negative space to see all of the different views of a three-dimensional work.

Relief sculpture is not intended to be freestanding. It projects out from a flat surface into negative space. You can find relief sculpture on ceramic pots and plaster ceilings. When the positive areas project slightly from the flat surface, the work is called *bas relief*, or *low relief* (**Figure 5.13**). When the positive areas project farther out, the work is called *high relief*.

Most jewelry is planned as relief sculpture to decorate human surfaces. The inside of a ring or the back of a pendant is smooth. It is not meant to be seen; it simply rests on the person's surface.

Today many artists are experimenting and changing traditional art forms. Printmakers are creating relief prints. Some printmakers are molding relief designs in handmade paper. Painters are adding a third dimension to the painted surface. Some painters are cutting or tearing real negative spaces in two-dimensional surfaces.

Weaving has also gone in new directions. It started as a practical craft, with weavers making two-dimensional fabrics for clothing, and has evolved into an art form. Today hand weavers are

creating relief hangings and three-dimensional woven sculptures.

Photographers are creating **holo-grams**, *images in three dimensions created with a laser beam*. Sculptors are making *kinetic*, or moving, sculpture.

Activity

Using Three Dimensions

Applying Your Skills. Make a freestanding, three-dimensional design that projects into negative space on all sides. Using pieces of cardboard tubing and small boxes, join the design pieces with glue and tape. Paint the finished work in one color to emphasize its form.

Set up a spotlight on one side of your freestanding sculpture. In your sketchbook draw the contours of the sculpture and the shape of its shadow. Move the spotlight to another angle. Draw the sculpture and its shadow. Notice how the changing light changes the shadow's shape.

Computer Option. Draw a solid cube or rectangular form so the top, side, and front are visible. Add shading by filling each surface with a different value of a color, texture, or gradient. Remove an area within the form by using the Eraser or Selection tool. Explore adding shadows and lines to accurately depict the inner space you see.



Check Your Understanding

1. Define *positive space* and *negative space*.
2. What words specifically describe three-dimensional art?
3. Compare and contrast the use of space in the artworks on this page.



◀ **FIGURE 5.12** This example of folk art from Peru is a freestanding sculpture. Look carefully and you can see forms peeking out from the back. To see them you would have to walk around to the back of the work.

Artist unknown. *Church Quinua*, Ayacucho, Peru. 1958. Painted earthenware. Girard Foundation Collection at the Museum of International Folk Art, a unit of the Museum of New Mexico, Santa Fe, New Mexico.



▲ **FIGURE 5.13** An example of low relief. Since the design was for the back of a chair, the relief has to be low relief or the chair back would be too uncomfortable to lean against.

Queen Ankhesenamun and King Tutankhamon. Egypt, Eighteenth Dynasty. Wood overlaid with gold, silver, semiprecious stones, and glass paste. Egyptian Museum, Cairo, Egypt. Scala/Art Resource, New York.

How We Perceive Shape, Form, and Space

Vocabulary

point of view

Look up from this book to an object across the room to see if you can feel the movement of your eye muscles. If you didn't feel anything, try again until you become aware that your eyes are working to refocus.

You have just taken a trip through visual space. Your brain measured the amount of space between you and the object and sent a message to your eye muscles to adjust. The muscles then refocused your eyes so that you could clearly see the object.

Perceiving Depth

Your eyes and brain work together to enable you to see in three dimensions—*height*, *width*, and *depth*. Each eye sees an object from a slightly different angle. The brain merges these two separate and slightly different views into one, creating a three-dimensional image.

To see how this works try the following experiment. Close your right eye. Point to a specific spot in the room. Without moving your pointing finger, open your right eye and close your left eye. It will appear that you have moved your finger, even though you know you have not.

Point of View

The shapes and forms you see depend on your *point of view*.

Point of view is *the angle from which the viewer sees an object*.

Another viewer at another location will see the same shape or form differently. For example, a person looking down on a circle drawn on the sidewalk sees a round shape. If that person lies on the ground beside the circle and looks at it, the circle will appear to have an oblong shape. A person looking at the front end of a car will see a form different from the one seen by a person looking at the side of that same car. **Figure 5.14** shows three different views of a sculpture.

Activity

Shape and Point of View

Creating Visual Solutions Using Direct Observation. Look through magazines for three or more different views of one type of object. Look for TV sets, sofas, spoons, toasters, cars, or shoes. Cut out the objects and mount each one on a sheet of white paper. Observe and emphasize the changes in shape by drawing around each outline with a crayon or marker.

Computer Option. Divide the page into three equal sections. Use the Grids and Rulers menu to guide you if available. Choose an interesting but simple object such as a cup, a screw, pliers, a book, or a paint container. Observe and draw three views of the same object using the Pencil, small Brush, Crayon, or Marker tool. After drawing the contour or outer edges of the object, add shading to emphasize the form and surface from different views.

► **FIGURE 5.14** Notice how the feeling expressed by this sculpture changes as your point of view changes. You must view the sculpture from all angles to truly understand it.

Michael Naranjo. *Spirits Soaring*. 1985. Bronze. Height 50.8 cm (20"). Private collection.



Experiments in Point of View

You can learn about point of view by doing the following experiments. Place your hand flat on the desk and spread your fingers apart. The shape and form you see are the shape and form you would probably draw. They are part of the mental image you have of the object “hand.” Now lift your hand and let your fingers relax. Notice how the shape and form of your hand change. Turn your hand and watch what happens. Your hand is still the same hand. Only its shape and form are different.

Next, look at a rectangular table. What shape does the top have when you are sitting at the table? Look at the top through a rectangular viewing frame. Are the edges of the table parallel to the edges of the frame? You know the top is a rectangle, but does it really look rectangular now? What shape does the top seem to take if you are sitting across the room from it? What would the shape look like if you viewed it from the top of a tall ladder? Do you think the shape you see will change if you lie on the floor directly under the table?



▲ **FIGURE 5.15** Grandma Moses is the professional name of Anna Mary Robertson Moses. She began to paint rural scenes from her memories in the 1970s. This painting depicts the many different aspects of making maple sugar. What point of view is she using? What effect does this point of view create for the viewer?

Grandma Moses. *Sugaring Off*. 1955. 50.8 x 63.5 cm (20 x 25"). © 1955 (renewed 1983) Grandma Moses Properties Company, New York, New York.

When you looked at your hand, your eyes stayed in the same place, but your hand moved. When you studied the table, it remained in one place, but you moved. In both cases, what you saw changed because your relationship to the object changed. Your point of view depends on where you are and where the object is. Look at **Figure 5.15**. Where is the artist's point of view in relation to the people in that picture?



Check Your Understanding

1. What three dimensions are we able to see?
2. Define *point of view*.
3. Why may people who are looking at the same object see different shapes and forms?

How Artists Create Shapes and Forms in Space

Vocabulary

chiaroscuro
highlights
perspective

Shapes and forms can be classified as *natural* or *manufactured*. Natural shapes and forms are made by the forces of nature. For instance, animals, plants, and stones are natural forms. Manufactured forms are those created by people, whether mass-produced by the thousands in factories or made by hand.

Artists use many materials and techniques to make shapes. They concentrate on both outline and area. Some artists outline shapes in drawings and paintings. Others may paint shapes by placing brushstrokes together without using even a beginning outline. Some may cut shapes and print shapes and some may pour paint to create shapes (**Figure 5.16**).

Like shapes, three-dimensional forms can be made in many ways. Artists model clay forms, mold metal forms, and carve forms from wood or stone. They use glass, plastic, bricks, and cement to create forms as well as shapes.

The Illusion of Form

Artists can create the illusion of three-dimensional form on a surface that is two-dimensional. They can give the impression of depth and solidity by using changes in value. **Figure 5.17** is an example of this illusion.



▲ **FIGURE 5.16** Frankenthaler is an action painter who creates shapes by pouring thinned acrylic paint onto a canvas that is placed flat on the floor.

Helen Frankenthaler. *The Bay*. 1963. Acrylic on canvas. 201.1 × 207 cm (79³/₁₆ × 81¹/₂”). Detroit Institute of Arts, Detroit, Michigan. Founders Society Purchase with funds from Dr. and Mrs. Hilbert H. DeLawter.



◀ **FIGURE 5.17** Artemisia Gentileschi was a Baroque artist who used the arrangement of contrasting light and dark to create a dramatic effect in her work. Notice how the light seems to be coming from a single candle.

Artemisia Gentileschi. *Judith and Maidservant with the Head of Holofernes*. c. 1625. Oil on canvas. 184.2 × 141.6 cm (72¹/₂ × 55³/₄”). Detroit Institute of Arts, Detroit, Michigan. Gift of Mr. Leslie H. Green.



◀ **FIGURE 5.18** The artist has represented shadows and highlights with photographic reality. Notice how he has made the objects seem to look solid. The seats of the stools look round. The reflections on the metal ceiling indicate rounded form. How does he use light to create the effect of a cool, air-conditioned interior against a hot outdoor scene?

Ralph Goings. *Diner With Red Door*. 1979. Oil on canvas. 112.4 × 153.7 cm (44¹/₄ × 60¹/₂"'). Courtesy of OK Harris Works of Art, New York, New York.

The arrangement of light and shadow is called **chiaroscuro** (**kyah-roh-skoo-roh**). In Italian *chiaro* means “bright,” and *oscuro* means “dark.” Chiaroscuro was introduced by Italian artists during the Renaissance. Today, chiaroscuro is often called *modeling* or *shading*.

Look, for instance, at an object with angular surfaces, such as a cube. You will see a large jump in value from one surface of the cube to the next. One surface may be very light in value and the next very dark. Now look at an object such as a baseball. The curved surfaces of spheres and cylinders show gradual changes in value.

The area of a curved surface that reflects the most light is, of course, the lightest in a drawing. **Highlights** are *small areas of white used to show the very brightest spots*. Starting at the highlights, the value changes gradually from light values of gray to dark values of gray. The darkest values are used to show areas that receive the least light. An area that is turned completely away from a light source is almost black. Look at **Figure 5.18** to see the different ways an artist has created the illusion of form.

Activity

Using Shading

Applying Your Skills. Set up an arrangement of geometric forms. Use boxes, books, balls, and cylindrical containers. Study the way light reflects off the surfaces of the objects. Draw the arrangement. Give the shapes in your drawing the illusion of three dimensions by using the medium and shading technique of your choice. Use values that range from black to white, and employ many value steps in between.

Computer Option. To perfect your shading technique, experiment with the Pencil, Brush, Line, Gradient, and Airbrush tools. Several programs include a Smudge or Blending tool, which softens edges. The Pencil, Line, and small Brush tools can be used with shading techniques you use when working with pen and ink. To explore these options, draw a small square shape. Select, copy, and paste seven more copies of the square in a row across the screen. Then choose from a variety of tools, textures, and settings to create different values from light to dark in the squares.

The Illusion of Depth

In paintings, artists often create the illusion of depth. When you look at these paintings, you see objects and shapes, some of which seem closer to you than others. You seem to be looking through a window into a real place (**Figure 5.19**). This idea—that a painting should be like a window to the real world—has dominated traditional Western art since the early Renaissance.

There are several terms that will help you as you talk about and create depth

in a painting or drawing. The surface of a painting or drawing is sometimes called the *picture plane*. The part of the picture plane that appears nearest to you is the *foreground*. The part that appears farthest away is the *background*. The area in between is called the *middle ground*.

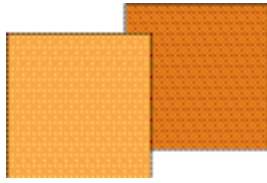
Perspective is a graphic system that creates the illusion of depth and volume on a two-dimensional surface. In the following pages you will learn techniques artists use to give their paintings and drawings perspective.



▲ **FIGURE 5.19** Panini excelled at capturing the interiors of famous buildings. Notice how he tries to focus your attention on the arch at the end of the hall by using converging lines. After reading about perspective on the following pages, try to find examples of each of the six perspective techniques in this painting.

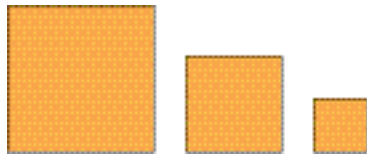
Giovanni Paolo Panini. *Interior of Saint Peter's Rome*. 1746-54. Oil on canvas. 154.3 × 196.9 cm (60³/₄ × 77¹/₂"). National Gallery of Art, Washington, D.C. Ailsa Mellon Bruce Fund.

Overlapping. When one object covers part of a second object, the first seems to be closer to the viewer, as in **Figure 5.20**.



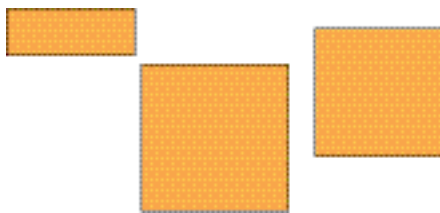
▲ **FIGURE 5.20** Overlapping.

Size. Large objects appear to be closer to the viewer than small objects, as in **Figure 5.21**. The farther an object is from you, the smaller it appears. Cars far down the road seem to be much smaller than the ones close to you. If you stand at the end of a long hallway and raise your hand, you can block your view of a whole crowd of people. You know that each person is about your size, but at a distance the crowd appears to be smaller than your hand.



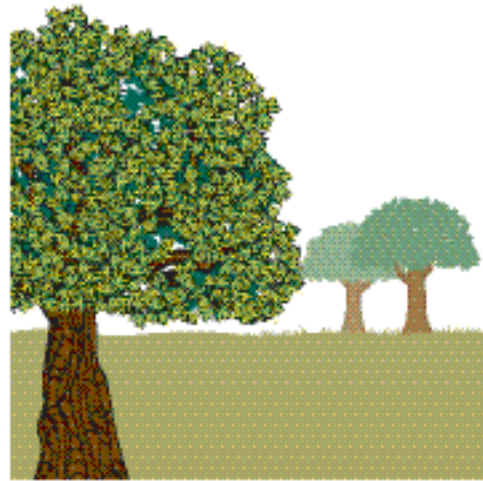
▲ **FIGURE 5.21** Size.

Placement. Objects placed low on the picture plane seem to be closer to the viewer than objects placed near eye level. The most distant shapes are those that seem to be exactly at eye level (**Figure 5.22**).



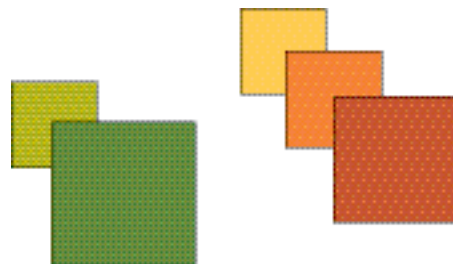
▲ **FIGURE 5.22** Placement.

Detail. Objects with clear, sharp edges and visible details seem to be close to you (**Figure 5.23**). Objects that lack detail and have hazy outlines seem to be farther away. Look closely at your own hand. You can see very tiny lines clearly. Now look at someone's hand from across the room. You have trouble seeing the lines between the fingers. All the details seem to melt together because of the distance between you and what you are seeing.

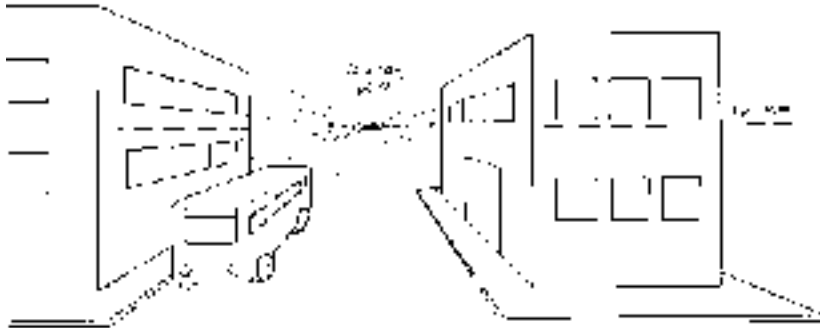


▲ **FIGURE 5.23** Detail.

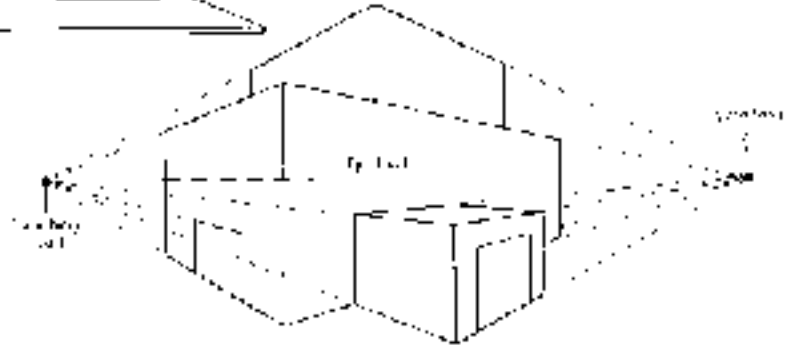
Color. Brightly colored objects seem closer to you, and objects with dull, light colors seem to be farther away (**Figure 5.24**). This is called *atmospheric perspective*. The air around us is not empty. It is full of moisture and dust that create a haze. The more air there is between you and an object, the more the object seems to fade. Have you ever noticed that trees close to you seem to be a much brighter green than trees farther down the road?



▲ **FIGURE 5.24** Color.



▲ **FIGURE 5.25** In this drawing the lines gradually come together and meet at one point in the distance. This is one-point linear perspective.



▶ **FIGURE 5.26** In this drawing the lines come together and meet at two points. This is two-point linear perspective.

Converging Lines. *Linear* perspective is one way of using lines to show distance and depth. As parallel lines move away from you, they seem to move closer together toward the horizon line (**Figure 5.25**). When you look at the highway ahead of you, the sides of the road appear to move closer together. You don't worry, though, because you know this is an illusion. The sides of the road

ahead of you are actually just as far apart as they are in your present position.

Sometimes lines appear to meet at a point on the horizon line called the *vanishing point*. In two-point linear perspective, different sets of parallel lines meet at different vanishing points (**Figure 5.26**). Because two-point perspective creates more diagonal lines in a painting,

Activity

Creating Depth

Creating Visual Solutions Using Imagination. Create three different designs on three separate sheets of paper. Each design should contain five imaginary shapes. Use the same five shapes in each design as follows:

- Draw all of the items as close to the foreground as possible.
- Draw one item close to the foreground and make the others look as if they are slightly farther back.
- Draw one item close to the foreground, one far in the background, and the other three in the middle ground.

Computer Option. Use the Brush or Pencil tool to draw a landscape that includes a foreground, middle ground, and background. Draw several medium size trees in the middle ground. Draw at least one large tree in the foreground. This tree should touch two or three edges of the paper and overlap the smaller trees. It should display the most detail. Add other objects and details that might include plants, animals, water, and objects made by hand. Remember the methods for creating the illusion of depth that were discussed earlier in the chapter.

it seems more active. Renaissance artists used strict mathematical formulas to calculate perspective. Most of today's artists rely on visual perception rather than mathematical formulas. Notice the ways in which Doris Lee has used perspective to show depth in her busy kitchen scene (Figure 5.27).

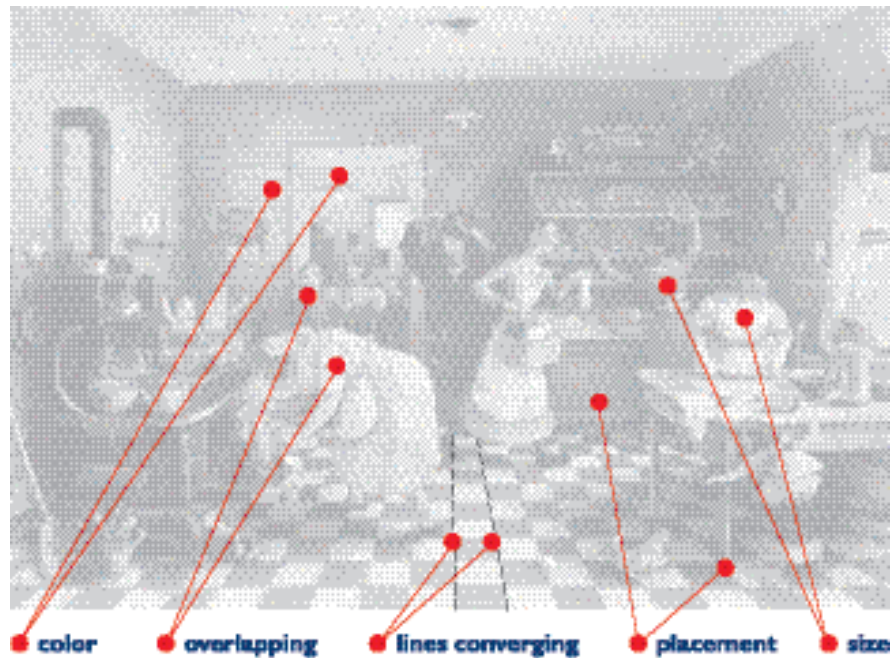


1. How are shapes and forms classified?
2. What effect does chiaroscuro create in artworks?
3. List and describe three techniques artists use to give their works perspective.

LOOKING CLOSELY

Identifying Perspective Techniques

In this painting about the preparations for an old-fashioned Thanksgiving feast, Doris Lee has used all six perspective techniques. The lines in the diagram of the painting indicate one example of each technique. Can you find more examples of the six techniques in the painting?



◀ **FIGURE 5.27**

Doris Lee. *Thanksgiving*. 1935. Oil on canvas. 71.1 × 101.6 cm (28 × 40"). The Art Institute of Chicago, Chicago, Illinois. Mr. and Mrs. Frank G. Logan Prize Fund (1935.313).

What Different Shapes, Forms, and Spaces Express

Shapes, forms, and spaces in art convey certain feelings. This is possible because you associate them with similar shapes, forms, and spaces in real life. When you see a certain shape or form in a work of art, you may think of an object from real life. Any feelings you have about that object will affect your feelings about the artistic work. Artists use this relationship between art and the environment to generate these feelings in the viewer.

Outline and Surface

The outline of a shape and the surface of a form carry messages. Artists often use free-form shapes and forms to symbolize living things. When they want to please and soothe viewers, they use shapes and forms with smooth, curved outlines and surfaces (**Figure 5.28**). Forms that remind us of well-worn river rocks or curled-up kittens tempt us to touch them. These forms are comfortable. They appeal to us through our memories of pleasant touching experiences.

Angular shapes with zigzag outlines and forms with pointed projections remind us of sharp, jagged things (**Figure 5.29**). We remember the pain caused by broken glass and sharp knives. We would never carelessly grab a pointed, angular form. If we were to touch it at all, we would do so very carefully.



◀ **FIGURE 5.28**
The artist who created this horse used rounded forms to make it appealing to look at and to touch.



▲ **FIGURE 5.29** This sculpture is based on the skeleton of a prehistoric bird. How many bird body parts can you identify? How do the sharp points on its teeth, head, and tail make you feel about this work?

David Smith. *The Royal Bird*. 1947–48. Steel, bronze, stainless steel. 56.2 × 151.9 × 21.6 cm (22¹/₈ × 59¹³/₁₆ × 8¹/₂”). Walker Art Center, Minneapolis, Minnesota. Gift of T. B. Walker. Art © Estate of David Smith/Licensed by VAGA, New York, NY.

Haniwa Horse. Japan, Kofun Period, A.D. 300–550. Earthenware. 66 × 71.8 × 22.9 cm (26 × 28¹/₄ × 9”). The Minneapolis Institute of Arts, Minneapolis, Minnesota. The John R. Van Derlip Fund and Gift of anonymous St. Paul Friends.



▲ **FIGURE 5.30** The artist has transformed a soft, feathered bird form into a dense, abstract, bronze form that represents the flowing movement of a bird.

Constantin Brancusi. *Bird in Space*. 1928. Bronze (Unique Cast). Height 137.2 cm (54"). Museum of Modern Art, New York, New York. © 2003 Artists Rights Society (ARS), New York/ADAGP, Paris.

Geometric shapes suggest mechanical perfection. It is impossible to draw a perfect circle freehand. The special appeal of geometric shapes and forms has been felt throughout the ages. Their lines, contours, and surfaces are clean and crisp. This appeals to people's sense of order.

As used by modern artists, geometric shapes and forms express less feeling than other types. They are unemotional; in fact, they may express a total lack of feeling. Geometric forms in artworks appeal to viewers' minds rather than to their emotions (**Figure 5.30**).

Density

The *density* or mass of an object refers to how compact it is. Dense materials are solid and heavy. Granite and lead, for example, are very dense. They are so solid and firm that you cannot make a dent on their surfaces when you press on them. Dense forms seem unyielding. They resist impact. For this reason, you may associate them with the idea of protection. In two-dimensional art, you can depict dense objects using shading techniques and hard-edge contours.

Soft, fluffy forms are less dense. When you press on them, you can make a dent. These forms have air inside them, and they look more comfortable than denser forms. In two-dimensional art, you can depict soft forms by using shading techniques and curved contours.



Openness

An open shape or form appears inviting. It seems to say, “Come in.” You can see into or through it. An armchair is an open form that invites you to sit (**Figure 5.31**). An open door invites you to enter. An empty cup invites you to fill it. Transparent objects, such as a glass wall, invite you to look inside. When you extend your hand to invite someone to join you, the form of your outstretched hand is an open form.

Open spaces in sculpture invite your eyes to wander through the work. Weavers leave openings in fabrics and hangings to let you see through them. If you remove an oak table from a room and replace it with a glass table, the room will seem less crowded. Architects use glass walls to open small spaces. Windows open up a building and bring in the outdoors.

◀ **FIGURE 5.31** To Wright, form and function were inseparable, so a chair, which functions for sitting, should be considered along with the whole architectural environment.

Frank Lloyd Wright. *Armchair for the Ray W. Evans House*, made by Niedechen and Walbridge. c. 1908. Oak. 87 × 58.4 × 57.1 cm (34¹/₄ × 23 × 22¹/₂”). The Art Institute of Chicago, Chicago, Illinois. Gift of Mr. and Mrs. F. M. Fahrenwald, 1970.435.

Closed shapes and forms look solid and self-contained. Windowless buildings look forbidding. Closed doors keep people out; closed drapes and shades keep light out. When you make a tight fist, your hand is a closed form that seems to say, “Keep away.” Folding your arms tightly to your body closes you off from others. Open arms invite people to come closer to you. The plumed deity, or god, in **Figure 5.32** is a closed form. Even its feathers are pulled tightly against its body.



▲ **FIGURE 5.32** This carving represents Quetzalcoatl (Plumed Serpent), a highly revered god in Aztec culture. It is tightly knotted into a closed form. Notice the human head and the carefully carved quetzal bird feathers.

Aztec. Tenochtitlan (Mexico City), Mexico. *Sculpture in the form of the deity Quetzalcoatl*. Last half of the fifteenth century. 20.3 × 12.7 × 19.7 cm (8 × 5 × 7³/₄”). Birmingham Museum of Art, Birmingham, Alabama.

Activity and Stability

You have already learned about active and static lines. Shapes and forms, also, can look as if they are about to move or as if they are fixed in one place.

Active shapes and forms seem to defy gravity. They slant diagonally, as if they are falling or running. In **Figure 5.33** notice how the back of the wave and all the horse forms are arranged in diagonal, active positions.

Static shapes and forms are motionless, or stable. Their direction is usually horizontal (**Figure 5.34**). However, if two diagonal shapes or forms are balanced against each other, a static shape results. For instance, if an equilateral triangle rests on a horizontal base, the two diagonal edges balance each other.

Because static shapes and forms are firmly fixed in position, they evoke quiet and calm feelings. For instance, in landscape paintings the land forms are horizontal and the trees are vertical. They look very peaceful. This is probably why so many landscape paintings are chosen for people's homes.

► **FIGURE 5.33** The diagonal push of the back of the wave creates an unstable, active feeling. The wave is caught at the moment before it will collapse.

Anna Hyatt Huntington. *Riders to the Sea*. 1912. Bronze. 47 × 61 × 53.3 cm (18½ × 24 × 21"). The Newark Museum, Newark, New Jersey. Gift of the estate of Mrs. Florence P. Eagleton, 1954.



Activity

Active and Static Shapes

Demonstrating Effective Use of Art Media in Design. Make a simple design with geometric shapes. Lightly draw it with pencil on a sheet of watercolor paper. Repeat the same design on another sheet of watercolor paper of the same size. Next, paint the first design precisely. Use a pointed brush to make sure that all of the edges are clearly defined. Wet the second sheet of paper by sponging it with water. Using exactly the same colors, paint the second design while the paper is wet so that the edges of the shapes run and look soft. Mount the two designs, side by side, on a sheet of black paper. Label the first "hard-edged" and the second "soft-edged."

Computer Option. Choose the Shape and Line tool to make a design that creates a static feeling. The Line tool on most applications can be constrained to draw straight horizontal, vertical, or diagonal lines by holding down the shift key while drawing with the mouse. Title and save the black line static design. Select a color scheme. Pick the Bucket tool to fill the spaces with solid colors. Use the Save As command to retitl the work by adding a number or letter after the original title. Open the original line design. Apply the same color scheme but explore the tools and menus, which create active flowing edges. Use the Save As command to retitl the active composition.



Check Your Understanding

1. What do angular shapes suggest?
2. What do geometric shapes suggest?
3. Define *density*.
4. List one example each of an open shape or form and a closed shape or form.



▲ **FIGURE 5.34** The strong horizontal shape of the orange wheat at the base of the work creates a calm, stable effect.

Jane Wilson. *Winter Wheat*. 1991. Oil on linen. 101.6 × 127 cm (40 × 50"). Photo courtesy of DC Moore Gallery, New York, New York. Private Collection.

Free-Form Clay Sculpture



▲ **FIGURE 5.35**

Henry Moore. *Dallas Piece*. Bronze. Located in the plaza of the new City Hall, Dallas, Texas.

SUPPLIES

- Cotton cloth
- Plastic bag
- Clay rolling pin, dowel, heavy spoon
- Turntable
- Assorted clay tools
- Soft cloth
- Watercolor

Historical and Cultural Context

The twentieth-century British sculptor Henry Moore created works in stone, bronze, and marble. Most of these creations were abstractions of the human figure.

Moore did not design outdoor sculptures for specific sites. The original bronze casting shown in **Figure 5.35** consisted of three separate pieces. The present grouping was suggested by I. M. Pei, a Chinese-born American architect, who was commissioned to build a new city hall for Dallas. Pei liked this work but asked Moore to arrange the sculpture so that people could walk through it. Moore designed the pyramidal arrangement you see. Notice the careful balance between solid mass and an almost airy visual flow. Does your eye move in and around the smooth planes of the sculpture without interruption?

What You Will Learn

Using your imagination, you will create a nonobjective, free-form sculpture in clay. You will use the subtractive method of carving to demonstrate the effective use of media and tools in sculpture. Your work should have smooth planes with well-defined edges. The goal is to create visual flow, as in Figure 5.35. Decorate some small areas of emphasis in your work by carving small forms or creating textures. The completed sculpture must be freestanding and pleasing from all angles.

Creating

If you have not worked in clay before, take time to explore the properties of the medium. Clay must be *wedged*—or thumped on a surface—before use. Doing this removes any air bubbles. Keep the clay moist by covering it with a slightly damp cloth. Seal it in a plastic bag when not in use.

Step 1 Wedge seven to eight pounds of clay.

Step 2 Beat and shape the clay with various tools, such as a rolling pin, a two-inch dowel, or a large heavy spoon. Keep the form vertical rather than horizontal so you will have a standing sculpture.

Step 3 Place the resulting form on a turntable. Study it from all directions. Let the existing form of the clay guide you. Look for linear edges that flow through the form. Avoid looking for a recognizable object.

Step 4 Begin to carve the form you visualize, using large wire sculpture tools. Use smaller clay tools to refine the planes. Carve contrasting small areas of emphasis. One possibility to consider is adding texture with a fork.

Step 5 Hollow the sculpture, leaving an outer shell no more than $\frac{3}{4}$ of an inch thick. If possible, hollow the sculpture from the bottom. Otherwise, carefully cut open the sculpture with a thin wire and remove the inside clay.

Step 6 Allow the sculpture to dry at room temperature until bone dry. Fire your work in a kiln.

Step 7 Using a soft cloth, apply stain by using a watercolor. Begin applying stain with a very light layer and end with a darker layer.

Evaluating Your Work

- ▶ **DESCRIBE** Did you use the media and tools effectively? Did you use only the subtractive method of sculpting? Did you hollow out the center so that your work dried properly? Describe the process you used to apply the finish. Is your sculpture vertical and freestanding?
- ▶ **ANALYZE** Did you create smooth planes with well-defined edges to develop a visual flow? Compare and contrast your own use of negative and positive space. Is your finished work nonobjective? Compare and contrast the areas of emphasis you carved or textures you created.
- ▶ **INTERPRET** What does your work express? Interpret your artistic decisions. Give your sculpture a title that reflects its form and mood.
- ▶ **JUDGE** Do you think this work is successful? Use one or more of the three aesthetic theories explained in Chapter 2.



▲ **FIGURE 5.35A**

Student work.

Contrast Drawing



▲ **FIGURE 5.36**

Rembrandt van Rijn. *Aristotle with a Bust of Homer*. 1653. 143.5 × 136.5 cm (56½ × 53¾"). The Metropolitan Museum of Art, New York, New York. Purchase, special contributions and funds given or bequeathed by friends of the Museum, 1961. (61.198).

SUPPLIES

- Charcoal, colored pencils (gray tones and black), or soft (4B) and medium (2B) pencils
- Tensor lamp or other strong light source
- Camera with black-and-white film
- Sketchbook and pencil
- White drawing paper
- Scrap paper

Historical and Cultural Context

Rembrandt van Rijn is one of the best-known artists of all times and is considered the greatest Dutch artist of the 1600s. He completed numerous portraits, including more than 100 self-portraits, in addition to landscapes and religious art. Rembrandt often used chiaroscuro for dramatic effect. The technique creates a high level of contrast between the subject and background. Sometimes, as in **Figure 5.36**, it almost appears as though the subject were illuminated by a spotlight. Notice how the light emphasizes the connection between the human figure—the philosopher Aristotle—and the bust of Homer, a great storyteller of the ancient world. Study Aristotle’s face and body language. What do they tell you about his feelings toward this great author?

What You Will Learn

You will create a black-and-white drawing, using direct observation and a choice of drawing media: charcoal, gray to black colored pencils, or 4B and 2B graphite pencils. In your artwork, you will use chiaroscuro to create a sense of dramatic contrast and to emphasize some aspect of the subject.

Creating

Work in pairs in a darkened room, such as a closet, with a strong light source. Partners will take turns role-playing “model” and “artist.” The model is to pose for a portrait. The artist should experiment with angling the light source on the subject to create dramatic contrast. The artist should take several black-and-white photographs. The artist and model should then switch roles.

Step 1 Select one photo that interests you most, and in your sketchbook, create a study for the work. A *study* is a preparatory sketch or painting. Your study can be either a contour or gesture drawing (see page 428). Make sure that you indicate areas of light and dark.

Step 2 Transfer your study onto a sheet of drawing paper. Do not worry if you are unable to capture your subject’s exact likeness. Your chief goal is to make a dramatic statement through contrast. Decide which aspect of the subject you will emphasize through the use of light and dark.

Step 3 Apply shading techniques, using pressure, the edge of your medium, or both. (For more on shading effects, see page 429.) Start with the darkest areas and work toward the lightest areas. As you complete areas of the work, cover these with clean scrap paper to prevent smudging.

Step 4 As you work, stop periodically to assess your progress. Check to see that there is interplay between light and shadow, as in Figure 5.36.

Step 5 Use an art gum eraser to remove any stray marks or smudges. Mount your finished artwork. Give it a title that best describes the mood of the work.

Evaluating Your Work

- ▶ **DESCRIBE** What is the subject of your drawing? What drawing medium did you use? What shading techniques did you employ to create the light and dark areas in your drawing?
- ▶ **ANALYZE** Explain how you have used chiaroscuro in this particular drawing. Compare and contrast your use of light and dark values. Are there places where light gradually blends into darkness? Did you use the principle of emphasis?
- ▶ **INTERPRET** Can the viewer identify the mood that you have captured without glancing at the title? Does your work’s title express the mood you feel the drawing conveys?
- ▶ **JUDGE** Do you consider your drawing successful? Evaluate your artistic decisions. Which aesthetic theory would you use to judge your artwork?



▲ **FIGURE 5.36A**

Student work.

Digital Genre Scene



▲ **FIGURE 5.37**

Antonio Ruiz. *The Bicycle Race*. 1938. Oil on canvas. 33.3 × 43.2 cm (13¹/₈ × 17"). Philadelphia Museum of Art, Philadelphia, Pennsylvania. Purchased with the Nebinger Fund.

SUPPLIES

- Digital camera or scanner
- Computer
- Image-editing or paint program
- Printing paper
- Sketchbook and pencil
- Graphics drawing tablet (optional)

Historical and Cultural Context

The painting in **Figure 5.37** is by twentieth-century Mexican artist Antonio Ruiz. You don't need to look at the title of the work to know that it is a depiction of a bicycle race. What is unique about Ruiz's painting is the perspective of the event he shows us. We, the viewers, stand directly in the path of the leading cyclists as they bear down on the finish line!

Notice that Ruiz creates the illusion of deep space by using all six perspective techniques: overlapping of objects, size, placement, detail, color, and converging lines. Note also that, despite the crowds of people in the painting, Ruiz fills his composition with space and light by placing most of the people at the sides of the road.

What You Will Learn

In this project, you will create a digital genre scene that creates the illusion of deep space. A *genre scene* is an artwork depicting an event from everyday life—in this case, from your own. As in **Figure 5.37**, you will use as many of the six perspective techniques as you can. Using a digital or traditional camera, you will capture an ordinary, everyday scene or event. Then you will import or scan the images into an image-editing or paint application to experiment with perspective techniques.

Creating

Think for a moment about everyday experiences or places that have a special meaning for you. List them. Make notes and sketches in your sketchbook. Plan how you will draw from your experiences to create the visual solutions for your scene. Will there be one or more people in your scene? Will you place yourself in the scene? Apply perspective techniques to help you create the illusion of depth. Place larger, more vividly colored and detailed shapes in the foreground. Overlap some objects. Make the scene unique. Consider photographing the genre scene from a unique angle to take advantage of converging lines.

Step 1 List every person or object you will need to stage your scene. When everything is set up, take several images of your subject in its space from different angles.

Step 2 Download your digital images or scan your photos into the computer, and select your best composition. Get opinions from your classmates and teacher to help you select your strongest image.

Step 3 Save your best image. Be sure to choose a file format compatible with the image-editing program you will use and a resolution to match the printer's output.

Step 4 Using the tools available in your image-editing program, begin to paint, layer, distort, change lighting, and/or add text to your image. Experiment with various tools and controls.

Step 5 Study the final choice carefully, and make changes to your digital image, if necessary. When satisfied, save and print your work.

Evaluating Your Work

- ▶ **DESCRIBE** What experience did you draw from for your genre scene? Do people appear in the setting? Did you add extra objects? What were they? What kind of a camera did you use? How did you download the image into the computer? What software tools did you use to modify your digital image?
- ▶ **ANALYZE** Did you achieve the illusion of deep space in your image? Compare and contrast the perspective techniques you used to create deep space.
- ▶ **INTERPRET** Were you successful in expressing your feelings about the place or event? Give the image a title that sums up the feelings or mood you were trying to express.
- ▶ **JUDGE** Were you successful in staging your genre scene to achieve the illusion of depth? Use one or more of the three aesthetic theories to justify your judgment of this work.



▲ **FIGURE 5.37A**

Student work.

Shape, Form, and Space

The elements of shape, form, and space are closely related. Each is defined by the others. A square stretched into a third dimension becomes a cube. A pyramid squashed flat becomes a triangle. The area around and between these shapes and forms is space. As you examine the student works on this page:

- Compare and contrast the elements of shape, form, and space.
- Analyze the use of these formal qualities in artworks, forming precise conclusions about their relationships to one another.

Activity 5.38 Geometric form. What geometric form is used to create the hat in this portrait? Identify specific art techniques that were used to give depth to this and other forms.



▲ **FIGURE 5.38**

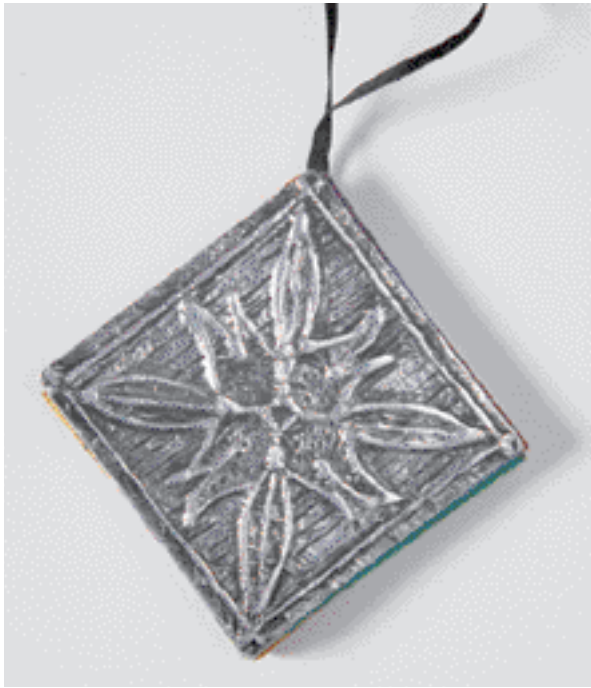
Student work. *Gordon*. Pastel.

Activity 5.39 Positive and negative space. Compare the artist's use of positive and negative space. Which objects in the work are figure, and which are ground? What mood is suggested by the interaction between the positive and negative space?



▲ **FIGURE 5.39**

Student work. *Thinking*. Charcoal and pencil.



Activity 5.40 Identifying shape.

What is the shape of this art object?
Is the shape geometric or free-form?

◀ **FIGURE 5.40**

Student work.



To view more student artworks
visit the Glencoe Student Art
Gallery at art.glencoe.com.

For Your Portfolio

Select and Analyze Portfolios. As you begin to build your portfolio of artworks, it can be useful to evaluate the work of your peers and others. Work with your teacher to compile a collection of portfolios. Select and analyze these portfolios by peers and other artists to form precise conclusions about formal qualities (the elements and principles of art), historical and cultural contexts, intents, and meanings. Store your evaluations in your portfolio.



Shapes and forms are everywhere. They make up the environment. As you walk or ride through your community, keep an eye open for shapes and forms. Notice the space around them and how forms extend into three-dimensional space. Draw and label these shapes, forms, and spaces in your visual journal.

Art Criticism *in Action*



▲ **FIGURE 5.41**

Deborah Butterfield. *Woodrow*. 1988. Bronze. 251.5 × 266.7 × 188 cm (99 × 105 × 74"). Walker Art Center, Minneapolis, Minnesota. Gift of Harriet and Edson W. Spencer, 1988.

Critiquing the Artwork

▶ 1 **DESCRIBE** *What do you see?*

List all the information found in the credit line.

- When was this work completed? Who is the artist?
- What object is depicted in this sculpture?
- What is unusual about the medium listed in the credit line?

▶ 2 **ANALYZE** *How is this work organized?*

This is a clue-collecting step about the elements of art.

- Is the work two- or three-dimensional? Geometric or free-form?
- Is this form open or closed? Active or static?
- Compare and contrast the use of form and space in this sculpture.

▶ 3 **INTERPRET** *What message does this sculpture communicate to you?*

Combine the clues you have collected to form a creative interpretation of the work.

- How do you think it would feel to walk around this sculpture? Would the horse appear the same from every viewpoint? Explain.
- The artist went to great lengths to imitate wood in cast bronze. Form a conclusion about her intent. Why didn't she simply use wood in the first place?
- What feeling about horses does the work communicate to you? Why?

▶ 4 **JUDGE** *What do you think of the work?*

Decide if this is a successful work of art.

- Do you think the artist constructed *Woodrow* with appropriate materials? Why?
- Do you think this is a successful work of art? Why or why not? Use one or more of the aesthetic theories you have learned to defend your decision.

Meet the **ARTIST**

Deborah Butterfield
(b. 1949)



Deborah Butterfield was born in San Diego. She developed a love for horses at an early age. Fittingly, these animals are the subject of most of her sculptures. She has sculpted horses in nearly every medium imaginable. These range from found materials to metals to wood. In the 1980s, her medium of choice became bronze. The sculpture in **Figure 5.41**, created during this period, began as sticks, tree branches, and bark. Each piece was cast separately in bronze and then welded.

ARCHITECTURAL FORMS

Frank Gehry's unusual buildings have forms that make people stop in their tracks.

Like all architects, Frank Gehry deals with shape, form, and space when he designs buildings. But instead of creating buildings with pure box-like forms, Gehry's buildings curve, swoop, and tilt.

Frank Gehry was born in 1929 in Toronto, Canada. In 1947, he and his family moved to Los Angeles, where he studied architecture. Gehry liked the contemporary, nontraditional building styles he saw there. He was also introduced to the shapes and forms of sculpture. These sculptural forms influenced his building design. An office complex he designed in Prague, Czech Republic, has two towers that lean into one another. To some people, the towers seem to be dancing together. Gehry's Guggenheim Museum in Bilbao, Spain, resembles a spaceship that has landed in an ancient town (Figure 14.1, page 388).

One of Gehry's best-known works is the Experience Music Project in Seattle, Washington. The lines of this rock-and-roll museum twist and curve to look like parts of a giant smashed guitar. The walls are made of thousands of titanium and stainless steel panels. Each panel is cut in a different shape. Gehry used specially designed computer software to help fit the pieces together. Like most of Gehry's work, this building rocks!

TIME to Connect

When Frank Gehry was a boy, he made models of buildings from scraps of wood. Architects make small models of buildings based on drawings. Models give them an idea of how the project will look when it is finished. The models are made to scale. For example, in a model, an inch may represent 10 feet of the actual building size.

- Design a two-story office building. Sketch the front view.
- Draw the front to scale on graph paper. Each box on the graph paper should represent a certain number of feet.

DOUGLAS PEEBLES/CORBIS



ABOVE: The Experience Music Project in Seattle, Washington. BELOW: A Gehry building in Prague, Czech Republic, features two towers that remind some people of the dancers Fred Astaire and Ginger Rogers.

GETTY IMAGES



Building Vocabulary

On a separate sheet of paper, write the term that best matches each definition given below.

1. A two-dimensional area that is defined in some way.
2. Precise shapes that can be described using mathematical formulas.
3. Irregular and uneven shapes.
4. Objects having three dimensions.
5. The element of art that refers to the emptiness or area between, around, above, below, or within objects.
6. Images in three dimensions created with a laser beam.
7. The arrangement of light and shadow.
8. Small areas of white used to show the very brightest spots.
9. A graphic system that creates the illusion of depth and volume on a two-dimensional surface.

Reviewing Art Facts

Answer the following questions using complete sentences.

10. Name the two basic types of shapes and tell which is more often used in decoration.
11. What is the difference between shapes and forms?
12. Name the two kinds of space found in art.
13. Using a portrait as an example, name the kind of space the subject occupies.
14. Explain how the eyes and brain enable us to see in three dimensions.
15. Explain how an artist creates the illusion of three-dimensional form on a two-dimensional surface.
16. Name six devices for creating perspective.
17. Give an example of an active shape and tell what makes it look active.

Thinking Critically About Art

18. **Synthesize.** *The Kiss* (Figure 5.9, page 104) and *Bird in Space* (Figure 5.30, page 118) are two of Brancusi's abstract works. Make a list of the similarities and differences between them. Do you think his style has changed over the years? Explain and defend the conclusions you reach in a few paragraphs.
19. **Historical/Cultural Heritage.** Review the Meet the Artist feature on page 105. Compare and contrast Figure 5.10 by Escher with Figure 1.11 on page 13 by Romare Bearden. How do both works share a general theme in relation to the illusion of depth? How are they different?



Journey to the Dallas Museum of Art by clicking on the **Web Museum Tour** link at

www.glencoe.com. Analyze how a group of Texas artists working in a variety of media have used shape, form, and space in their artworks. View these rich and diverse artworks, read about the artists, and then test yourself with questions prepared by the museum's curators.

Linking to the Performing Arts

Use Performing Arts Handbook page 417 to find out how dancer and choreographer Bella Lewitsky uses the elements of shape and form in dance to express her impressions of Henry Moore's art.

