LESSON 4

How Artists Create Shapes and Forms in Space

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 \times 207 cm (79³/₁₆ \times 81¹/₂"). Detroit Institute of Arts, Detroit, Michigan. Founders Society Purchase with funds from Dr. and Mrs. Hilbert H. DeLawter.



Vocabulary

chiaroscuro highlights perspective

> ◄ 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 ($72^{1}/_2 \times$ 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 \times 153.7 cm (44¹/₄ \times 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.

CONTENTS

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 $(60^{3}/_{4} \times 77^{1}/_{2}")$. 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.





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.

CONTENTS

CHAPTER 5 Shape, Form, and Space

114



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.

CONTENTS

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?





CONTENTS

FIGURE 5.27

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

116