

▲ **FIGURE 3.1** This artist has developed new ways to use the process of glassblowing to create large sculptures and installations. He calls the objects in this window installation “flowers.” Compare and contrast these glass flowers to the flowers painted by van Gogh in Figure 7.8 on page 178.

Dale Chihuly. *Malina Window* (detail). 1993. Handblown glass and steel. 4.87 × 4.87 m (16 × 16'). Detroit, Michigan.

The Media and Processes of Art

Artists communicate with viewers through a variety of materials, tools, and techniques. Some artists “speak” with paint, others with marble. The artist responsible for the artwork in **Figure 3.1** communicates with handblown glass. What do the see-through forms, colors, and patterns of this artwork communicate to you?

In this chapter, you will:

- Compare and contrast the media used in drawing, painting, printmaking, and sculpting.
- Describe the media of crafts and architecture.
- Demonstrate the effective use of art media and tools in original works.
- Identify technological media.

Focus on Art History

Traditionally, glass has been a medium of the craftsman used to make small, decorative works of art. American artist Dale Chihuly (b. 1941) has revolutionized the process of glassblowing to create monumental forms. His works appear in some 200 museums worldwide. His creations have been grouped into series. These include handblown glass baskets, sea forms, flowers, chandeliers, and huge installations, which include the 16-foot-square window in **Figure 3.1**. The window graces the lobby of a corporate headquarters. Its purpose, according to the artist, was to make “a difficult view beautiful.” What do you think he meant by this statement? In other words, what do you think is the view outside this window?

Compare and Contrast. Examine Figure 6.2 on page 136. Like Figure 3.1, these windows were created by an artist renowned for his inventive and beautiful glass designs. Compare the work of Chihuly and Chagall to identify the general trend or style each work shows.

Vocabulary

medium/media
shading
printmaking
print
reproduction
edition

Two-Dimensional Media

Jackson Pollock dripped paint onto canvas in Figure 1.13 on page 14. Leo Twigg used dyes and wax resist on cotton in Figure 1.7 on page 10. Each of these artists created a two-dimensional work of art using different materials. *Any material used to create art* is called a **medium**. The plural form of medium is **media**. A medium can be something as ordinary as a graphite pencil or as exotic as gold leaf gilding. In two-dimensional works, such as drawing and painting, artists use media such as crayons, paints, pastels, and pencils.

Drawing

In baseball, a pitcher throws warm-up pitches before facing a batter. Musicians tune their instruments or warm up their voices before a performance. Artists must also prepare before creating art. By drawing, artists become better at perceiving, or carefully noticing, the lines, shapes, and forms of an object.

Many artists use sketchbooks to record their surroundings and to produce studies of objects. Artists also record ideas for later use. The Renaissance artist Leonardo da Vinci filled more than 100 sketchbooks with his drawings and ideas. His sketchbooks included everything from perceptions of people, to his notations on the movement of water (**Figure 3.2**), to his plans for flying machines.

Drawing is usually the first step in producing artworks. Rough sketches, or studies, are often done before creating a work in another medium such as paint or clay. Fashion designers draw their ideas for new styles long before any fabric is cut. Stage designers, graphic designers, and architects must



▲ **FIGURE 3.2** Da Vinci's observations of moving water were confirmed as accurate in this century when fast cameras could photographically freeze the action of the water. Da Vinci filled his notebooks with observational sketches and notes. His writing was backward and could only be read when held up to a mirror.

Leonardo da Vinci. Page from his sketchbook showing movement of water. Royal Library, Windsor Castle, London, England. The Royal Collection 1993, Her Majesty Queen Elizabeth II.

show presentation drawings for a client's approval. **Figure 3.3** is a costume design for a comic ballet, *The Devil's Holiday*. The designer modeled the costumes and stage designs based on the eighteenth-century paintings of Venice by the artist Canaletto.

Although drawings are often used as guides for other artworks, sometimes an artist's drawing *is* the finished artwork. One example of a drawing as a work of art is Canaletto's *Ascension Day Festival at Venice* (**Figure 3.4**).

Drawing Media

Drawing is the process of moving an instrument over a smooth surface to leave a mark, called a line. In drawing, line is the most important element of art. The characteristics of a line are determined, in part, by the medium used to draw it. The most popular drawing media are graphite pencils, colored pencils, crayons, colored markers, pens, pastels, and chalk. Pen and ink, pen and brush, and brushes with watercolors are also used to make drawings.



▲ **FIGURE 3.3** How does this sketch let you know that this character is in a comedy? What makes him look humorous?

Eugene Berman. *Vendeur de Chapeaux*. 1939. Gouache on paper. 31.8 × 24.8 cm (12½ × 9¾"). Wadsworth Atheneum, Hartford, Connecticut. Gift of Mr. and Mrs. James T. Soby. 1939.697.



◀ **FIGURE 3.4** Look closely at this meticulous drawing. Can you tell what city is depicted in this work? What helped you decide?

Canaletto. *Ascension Day Festival at Venice*. 1766. Pen and brown ink with gray wash, heightened with white, over graphite on laid paper. 38.6 × 55.2 cm (15⅜ × 21¾"). National Gallery of Art, Washington D.C. © 1998 Board of Trustees. Samuel H. Kress Collection.

Each drawing medium has its own qualities. Chalk and crayon, for example, produce rough lines. Pens, by contrast, make smooth lines. **Figure 3.5** shows lines made with different drawing media.

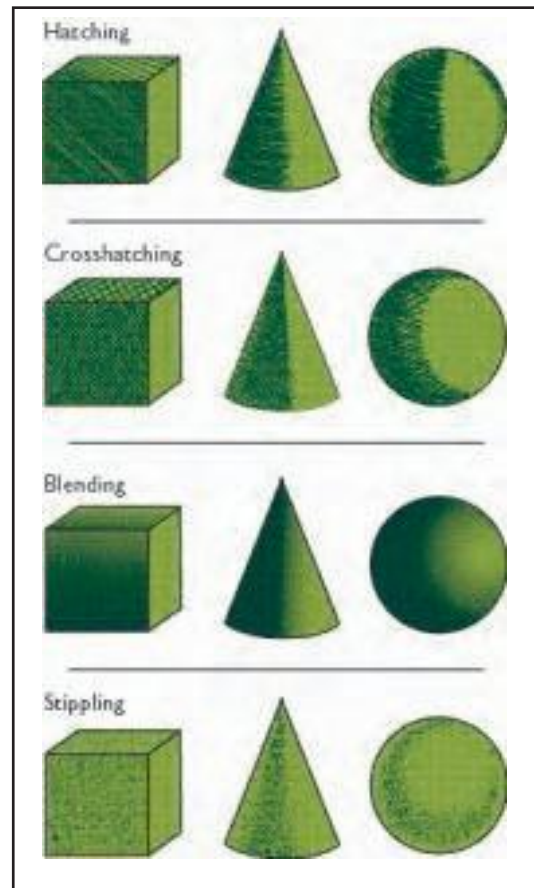


▲ **FIGURE 3.5** Drawing media.

Shading Techniques

Shading is the use of light and dark values to create the illusion of form. There are four main shading techniques:

- **Hatching.** This technique consists of drawing thin lines that run in the same direction. Find the forms in **Figure 3.6** that use hatching.
- **Crosshatching.** Shading created using crisscrossing lines is called crosshatching. Look at the forms in **Figure 3.6** that demonstrate this technique.
- **Blending.** Artists perform blending by changing the color value little by little. Find the forms in **Figure 3.6** that are shaded using blending.
- **Stippling.** Shading that creates dark values by means of a dot pattern is referred to as stippling. Locate the forms in **Figure 3.6** that show stippling.



▲ **FIGURE 3.6** Shading techniques.

Look at the drawing in **Figure 3.7**. Isabel Bishop used three different drawing media to create a drawing that has the look of three dimensions. The artist accomplished this through shading.

Which shading technique was used in **Figure 3.4** on page 43?

Painting

Painting is the process of applying color to a surface using tools such as a brush, a painting knife, a roller, or even your fingers. The surface is the material to which the paint is applied. Canvas, paper, and wood are frequently used as surface materials.



◀ **FIGURE 3.7** Look at this drawing and identify the shading techniques Bishop used.

Isabel Bishop. *Head #5*. No date. Graphite, crayon, and chalk on paper. 29.8 × 22.4 cm (11³/₄ × 8¹/₂”). Wadsworth Atheneum, Hartford, Connecticut. Gift of Henry Schnakenberg. 1953.217.

All paints have three basic ingredients:

- **Pigments.** Pigments are finely ground colored powders. Pigments come from natural or synthetic materials. Natural pigments include indigo, a vegetable, and the cochineal beetle, an insect. Natural pigments can also be made from minerals or clay. Synthetic pigments are artificially made from chemicals.
- **Binder.** A binder is a material that holds together the grains of pigment. The binder allows the pigment to stick to the painting surface. Egg

yolks mixed with water have long been used as a strong binder for professional artist's tempera paints. Other binders are linseed oil and wax.

- **Solvent.** A solvent is a liquid that controls the thickness or the thinness of the paint. Different painting effects require different thicknesses of paint. Using thin watercolor paint gives a light, washed-out appearance; using thick watercolor paint produces a more intense appearance. Solvents are also used to clean paintbrushes and other applicators.

MEET THE ARTIST

WINSLOW HOMER



American, 1836–1910

Winslow Homer is considered one of the artists who has captured the true feelings of the United States in his works. Homer developed an appreciation and love for the outdoors while growing up with his two brothers in Cambridge, Massachusetts. By the age of ten, his interest in art began and his talent for drawing became obvious. When he was 19, Homer was accepted as an apprentice at a large printing firm in Boston, even though he had little formal art training.

When his apprenticeship was over, Homer worked as a draftsman, specializing in woodblock engraving. Soon he began illustrating magazines. By the 1860s he was contributing regularly to *Harper's Weekly* magazine as an illustrator of events occurring in the Civil War. After the Civil War ended, Homer traveled to Europe. There, he was influenced by the works of French artists Édouard Manet and Gustave Courbet.

By the 1880s, Homer had begun painting the subject that was to become his trademark—the sea. He loved nature and spent hours outdoors. He felt at home on the sea although he knew its dangers as well. Because he was able to capture the elemental forces of nature, Homer is considered a Realist. His unique talent enabled him, as few others have done before him, to express the reality of the United States.

► **FIGURES 3.8 AND 3.9** One of these paintings was a sketch made at the scene, and the other was done in the studio based on the first work.

► **FIGURE 3.8**

Winslow Homer. *Sketch for 'Hound and Hunter.'* 1892. Watercolor. 35.4 × 50.8 cm (13¹⁵/₁₆ × 20"). National Gallery of Art, Washington, D.C. ©1998 Board of Trustees. Gift of Ruth K. Henschel in memory of her husband, Charles R. Henschel.



◀ **FIGURE 3.9**

Winslow Homer. *Hound and Hunter.* 1892. Oil on canvas. 71.8 × 122.6 cm (28¹/₄ × 48¹/₄"), National Gallery of Art, Washington, D.C. © 1998 Board of Trustees. Gift of Stephen C. Clark.

The look of a finished painting depends on the combination of media, tools, and the surface the artist chooses. In **Figures 3.8** and **3.9**, you can see how Winslow Homer has created two images that are almost exactly alike. However, he has used different media. Figure 3.8 is made with thin, wet, flowing watercolor on white paper. The white in this painting is the white of the paper showing through. Figure 3.9 is painted with thick, creamy oil paint on canvas. The white in this painting is opaque white paint.

Painting Media

As with drawing media, there are many different kinds of painting media, each with its own unique qualities. The artist chooses the paint based on personal preference and the purpose of the work.

Oil-Based Paint. First used in the 1400s, oil paint remains a popular medium today. True to its name, oil

paint uses linseed oil as its binder. Its solvent is turpentine.

One advantage of oil paint is that it dries slowly. This allows the artist to blend colors right on the canvas. The work in Figure 3.9 is an oil painting. Notice how smoothly the colors blend.

Water-Soluble Paint. The most popular of water-based painting media, watercolor takes its name from its solvent, water. The binder is gum arabic. Compare the watercolor in Figure 3.8 with the oil painting in Figure 3.9. What differences do you see?

Tempera is another water-based paint. It dries more quickly than oil paint, and it has a more opaque finish than watercolor.

Acrylic paint, which first appeared in the 1950s, uses an acrylic polymer as a binder. The solvent used for acrylic paint is also water. However, once professional acrylic paint dries, it cannot be dissolved. School acrylics have been developed, however, that can be dissolved with soapy water after they dry.

Activity

Experimenting with Watercolor

Demonstrating Effective Use of Art Media and Tools in Painting.

Using watercolor paint, choose one bright color and paint several shapes on a dry sheet of watercolor paper. Then thoroughly brush water on both sides of a sheet of watercolor paper and repeat the process. If available, try using different types of natural and synthetic watercolor brushes. Share and compare your results with those of classmates.

Computer Option. Drawing with color on the computer is like drawing with light. Light as the computer's pigment can vary in opacity from opaque, like tempera paint, to transparent, like watercolors. Find the menu in the application you are using that controls opacity. Explore the settings. Remember, these qualities change as you paint on different surfaces. If available, investigate rough, smooth, or textured papers.

Printmaking

Printmaking is a process in which an artist repeatedly transfers an original image from one prepared surface to another. Paper is often the surface to which the printed image is transferred. The impression created on a surface by the printing plate is called a **print**. A print is not the same thing as a reproduction, although sometimes people confuse the two. A print is an original work of art. A **reproduction**, such as the artwork shown in this book, is a copy of a work of art.

The Basic Steps of Printmaking

While prints may be made using many different media, processes, and surfaces, all require three basic steps.

- **Creating the printing plate.** A printing plate is the surface on which the desired image is created. In producing a printing plate, the artist makes a mirror image of the final print. Letters and numbers must be made backward on the plate.

- **Inking the plate.** The artist applies ink to the plate. This is done with a *brayer*, a roller with a handle. For a multicolor print, one plate must be made for each color. The ink creates the image on the print.
- **Transferring the image.** The paper or other material is pressed against the inked plate, and the ink is transferred to the new surface. Sometimes this is done by hand. Other times a printing press is used.

Usually, more than one print is made from a single plate. Together, *all the prints made from the same plate, or set of plates*, form an **edition**. Each print in an edition is signed and numbered by the artist. The printmaker signs the work in the bottom margin and writes the title on each print of an edition as well as the number of each print. The number 10/200 indicates the tenth of 200 prints.

Printmaking Techniques

There are four main techniques artists use to make prints: relief, intaglio, lithography, and screen printing.

- **Relief printing.** In this method, the artist cuts away the sections of a surface not meant to hold ink. As a result, the image to be printed is raised from the background. In **Figure 3.10**, Elizabeth Catlett has controlled the light and dark areas of her linoleum-cut relief print by the amount she has cut away. Notice that the white lines are wider in the very light areas.

◀ **FIGURE 3.10** Catlett has devoted her artistic career to a socially conscious art that represents the struggles of African Americans.

Elizabeth Catlett. *Sharecropper*. 1970. Linoleum cut on paper. 45.2 × 43 cm (17³/₁₆ × 16¹⁵/₁₆”). The National Museum of American Art, Smithsonian Institution, Washington, D.C. © Elizabeth Catlett/Licensed by VAGA, New York, NY.



- **Intaglio** (in-tal-yo or in-tal-ee-o). This name comes from the Italian word meaning “to cut into.” Intaglio is a process in which ink is forced into lines that have been cut or etched on a hard surface such as metal or wood. Then the plate’s surface is wiped clean and the prints are made. You can actually feel the lines of raised ink on an intaglio print.
- **Lithography.** In lithography the image to be printed is drawn on limestone, zinc, or aluminum with a special greasy crayon or pencil. Ink is attracted to this material. When the drawing is completed, the areas that should remain blank are etched with a special solution that repels ink. Then, when the surface is inked, the greasy area alone holds the ink. Because the process is complicated, new materials are being developed to make lithography easier. There are kits for schools that use paper instead of limestone or zinc for the printing plate.
- **Screen printing.** This is the newest method for making prints. It uses a stencil and screen as the printing plate. The stencil is placed on a fabric screen stretched across a frame. The screen is placed flat on the printing surface. Ink is pressed through the fabric screen where it is not covered by the stencil. If more than one color is used, a separate screen is made for each color. Another term for screen printing is *serigraphy*.

Activity

Making a Printing Plate

Demonstrating Effective Use of Art Media and Tools in Printmaking.

You can make your own relief printing plate. Begin by cutting a 4-inch square from a sheet of cardboard. Cut a variety of smaller geometric shapes from the same sheet. Arrange these on the surface of the square. Form an interesting design.

Glue the shapes in place. Let them dry overnight. Apply printing ink to the surface with a brayer. Lay a sheet of paper over your inked plate. Apply pressure evenly. Carefully peel back the print.

Computer Option. Explore the Shape and Line tools in your application. Change line thickness, color menus, gradients, and opacities. Arrange several shapes to make an interesting design. Print onto color transfer paper that is made for your printer. Remember to flip the image before printing if necessary because shapes and letters may be reversed. Follow the instructions on the printing paper package to transfer your design onto paper, cloth, or another surface. (An iron sets some transfer papers while others require more elaborate equipment.)



Check Your Understanding

1. Name four of the most popular media used in drawing.
2. What are the three ingredients found in every type of paint?
3. What are the three basic steps of printmaking?
4. Compare and contrast the media used in drawing, painting, and printmaking.