

Key Vocabulary

spectrum
pigment
neutral
hue
primary colors
complementary colors
tint
shade
intensity
tone
color harmony

ONE OF THE MOST EXCITING AND POWERFUL ASPECTS of our environment is color. Color appeals directly to our senses and emotions. We walk along streets and shop in stores filled with color—and we often make purchases because of it. Perhaps some colors, such as school colors, cause you to cheer and feel pride. Other colors might affect your mood, making you feel happy or sad. Look around you at rusted signs, neon lights, patterned clothing, flowering plants, and other everyday objects. Color is a necessary part of our lives. Knowing where color comes from and its properties will help you learn how to use it in your artwork.

4-1 In some regions, fall is when we are most mindful of color in our natural surroundings.

Leaf in Lexington, Massachusetts. Photo by H. Ronan.



4-2 The brilliant combination of sunlight and bright colors on a sunny summer day is captured in this painting. Consider how these objects would look on a cold winter's day.

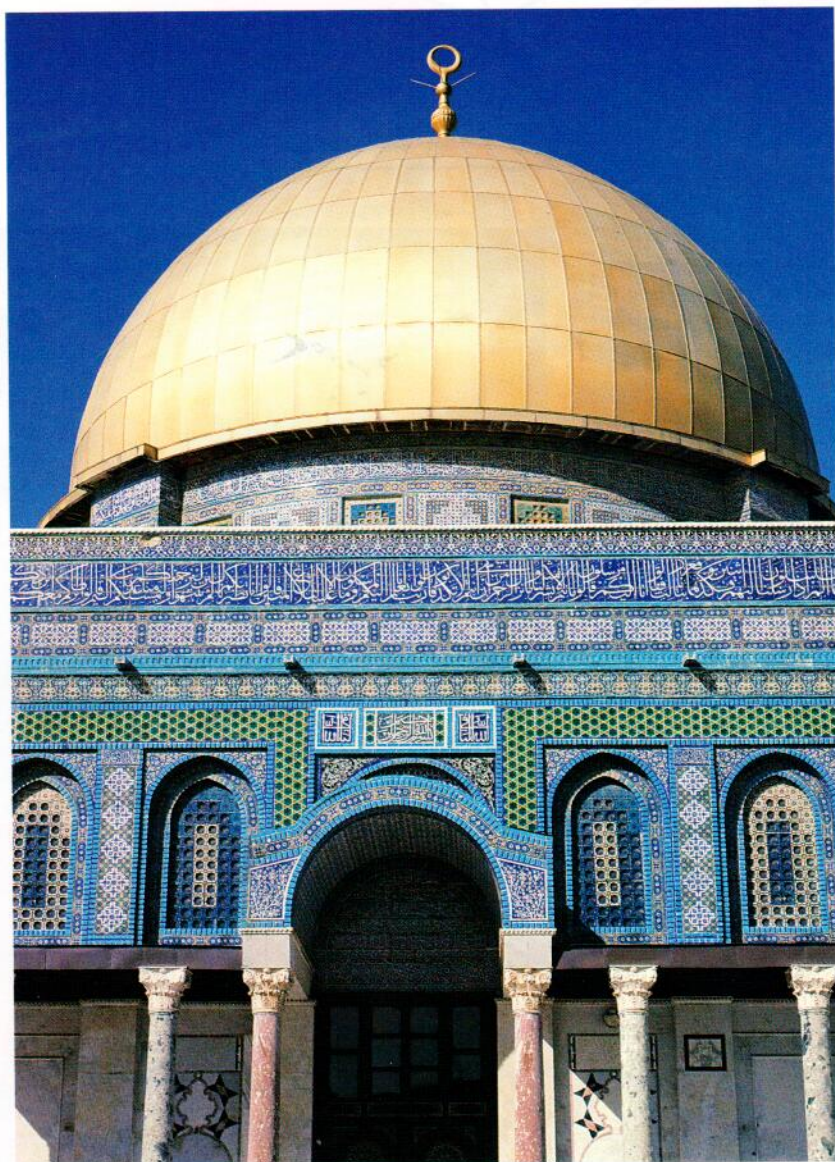
Janet Fish (b. 1938). *Jump*, 1995. Oil on canvas, 54" x 70" (137.2 x 177.8 cm). D. C. Moore Gallery, New York. Photo by Beth Phillips.

4-3 This painting can be seen as a color chart that shows the move from one color of the spectrum to the next.

Ellsworth Kelly (b. 1923). *Spectrum II*, 1966-67. Oil on canvas, 80" x 273" (203.2 x 693.6 cm). Funds given by the Shoenberg Foundation, Inc. 4:1967, The Saint Louis Art Museum (Modern Art) (ISM 15192).

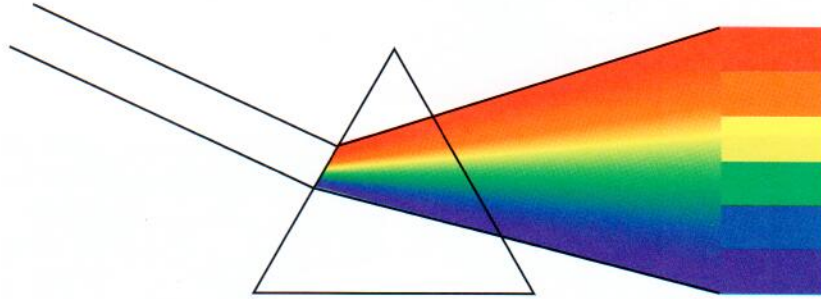
4-4 The exterior of this Islamic mosque is decorated with brightly colored ceramic tile. The tile and the dome's gold covering both take advantage of the direct, brilliant sunlight of the Middle East.

Dome of the Rock, Jerusalem, Israel, detail. Photo by L. Nelken.



The Source of Color

When studying color, it is helpful to understand some of the scientific facts and principles involved. Color comes from light, either natural or artificial. Have you ever been outside at sunrise? Or surprised by a sudden power failure at night? If so, you know that colors constantly change with the time of day and the amount of natural or artificial light. Where there is little or no light, there is little or no color. With bright light, colors are more intense.



4-5 The color spectrum represents the brightest colors possible.

4-6 This painting is meant to give the appearance of rusting. The artist saw weathered metal—objects that we barely notice—as a study in color.

Dan Douke (b. 1943). *Zep*. 1985. Acrylic on canvas, 24" x 35" (61 x 88.9 cm). Collection of Bruce Everett, Northridge, California.



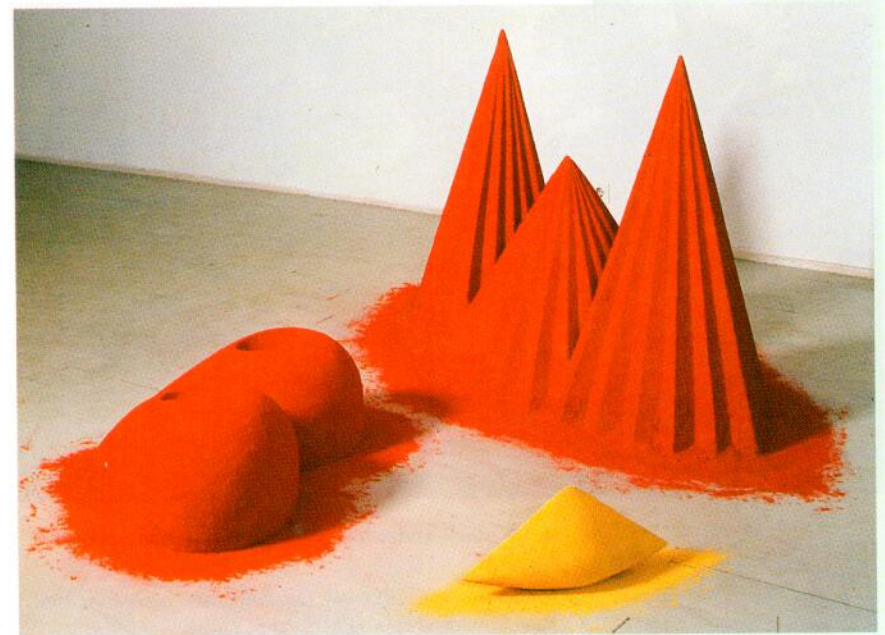
Color is produced by the way our vision responds to different wavelengths of light. When a ray of white light (such as sunlight) passes through a glass prism, the ray is bent, or refracted. This ray of light then separates into individual bands of color, called the color *spectrum*. This spectrum includes red, orange, yellow, green, blue, and violet. You can see this same grouping of colors in a rainbow, in which raindrops act as the prisms.

The color spectrum represents the brightest colors possible. The coloring matter that you use in art class is neither as bright nor as pure as that in a ray of light. Artists' colors come from powdered substances called *pigments*. These natural or chemical materials are combined with other substances to make the various paints, crayons, inks, and pencils commonly used by artists.



4-8 This artist has incorporated pure pigment into his artwork. The powdered substance is generally mixed with other materials for painting or drawing.

Anish Kapoor (b. 1954). *As If to Celebrate, I Discovered a Mountain Blooming with Red Flowers*, 1981. Three drawings and sculpture with wood, cement, polystyrene, and pigment, 38 ¼" x 30" x 63" (97 x 76.2 x 160 cm) and 13" x 28 ¼" (33 x 71.1 cm) and 32" (81.3). Tate Gallery, London. Photo Tate Gallery, London/Art Resource, New York.



4-7 When a ray of white light falls onto a blue lamp, the entire spectrum of colors hits the lamp. All the wavelengths except blue are absorbed into the surface of the lamp. The blue wavelengths bounce off the lamp and are perceived by our eyes as the object's color.

Photo by T. Fiorelli.

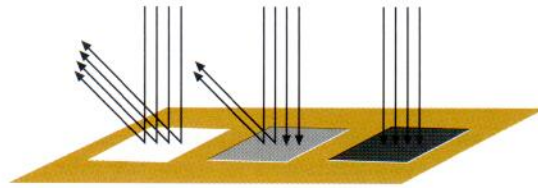
Neutrals

Not all objects have colors that are in the spectrum. Stars in the night sky appear white. Smoke may be gray. Ink is often black. Because we do not clearly see any one color in them, white, gray, and black are called *neutrals*. These three neutrals are created by different amounts of reflected light.

White is the sum of all colors. A white object reflects to our eyes all the wavelengths shining on it, absorbing none of them. What we see is the color of the original source of light.

Gray is created by a partial reflection. A gray object reflects part of all the wavelengths shining on it. It also absorbs part of all the wavelengths. The more light that is reflected, the lighter the gray; the more that is absorbed, the darker the gray.

Black is the total absence of reflected light. It results when an object absorbs all the wavelengths shining on it, reflecting none of them.



4-9 Pure white reflects all the wavelengths from a ray of light. Gray reflects some wavelengths and absorbs some. Pure black absorbs all the wavelengths.



4-10 Black-and-white photography is made only of neutrals.

Emil Schulthess (1913–96). *Candlelight Meeting in Peru*, 1961. Emil Schulthess Erben Photoarchiv, Zürich.



4-11 How has this student brought variety to her artwork which uses neutral colors and similar values?

Maryrose Mendoza (age 22). *Twin*, 1991. Fabric, wood, foam, and plastic. 12" x 12" x 20" (30.5 x 30.5 x 50.8 cm). Staff intern, Los Angeles County High School for the Arts, Los Angeles, California.

Georgia O'Keeffe

Born in 1887, Georgia O'Keeffe grew up on a large farm in Wisconsin. She first drew and painted with an eye to realism, but as her skill increased, her artistic path became clear. She wisely decided to focus on being true to her own vision, rather than creating art for "everyone else." This decision was marked by her choosing to destroy nearly all of her earliest work. Eventually, by following her inner voice, she became known as one of the foremost American abstract artists. Her long and prolific career lasted until her death at ninety-nine years of age.

Flowers were a favorite early subject of O'Keeffe: she often painted large, close-up views of flowers and flower parts. Some views were even closer than that in *The White Calico Flower* (fig. 4-12): the vibrating center of a flower was often the only shape on her canvas. O'Keeffe explained in 1939 that "nobody sees a flower—really—it is so small—we haven't time—and to see takes time, like to have a friend takes time." By magnifying the flowers, O'Keeffe tried to startle the viewer. She used a similar approach in depicting other forms found in nature; for example, a cornstalk or clamshell.

O'Keeffe combined her lively visual imagination with a passion for natural forms and



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colors; she often gained inspiration from landforms, plants, and animal bones. By depicting the stark beauty of desert scenes or bleached animal skulls in her own way, she shared the power of her compositions with countless appreciative viewers.

4-12 How has the artist used neutrals in this painting? Where is the light most reflective? How do the neutrals influence the direction that your eyes take when viewing the painting?

Georgia O'Keeffe (1887-1986). *The White Calico Flower*, 1931. Oil on canvas, 30" x 36" (76.2 x 91.4 cm). Collection of the Whitney Museum of American Art. Purchase, 32.26. ©1999 The Georgia O'Keeffe Foundation/ARS, New York, NY.



Try it



Place a white swatch and a black swatch of fabric or paper in the sun or under a spotlight for several minutes. Then feel the two surfaces. The black one will be warmer because it has absorbed all the light rays from the sun. The white one has reflected them and absorbed none. Why do you think people often wear dark-colored clothes in winter? Why do people in warm climates often paint their houses white?

The Properties of Color

When artists discuss color, they talk about three properties that can be defined and measured: hue, value, and intensity. These properties are sometimes called qualities or characteristics of color.

Hue

Hue is the name of the color itself, such as “blue” or “red,” and it refers to the color’s position in the spectrum. The wavelength of blue, for example, is 19 millionths of an inch long. The wavelength of red is 30 millionths of an inch long. Each hue has a definite wavelength and position in the spectrum.

For easy study, the colors of the spectrum are usually arranged in a circle called a color wheel. Look at the color wheel in fig.4-14. Red, yellow, and blue are the three *primary colors* or hues. All other pigment hues are made by mixing different amounts of these three colors.

If you mix the pigments of any two primary colors, you will produce one of the three secondary colors or hues. From experience, you probably know that red and blue make violet, red and yellow make orange, and blue and yellow make green. These are the three *secondary colors*. Notice their location on the color wheel.



4-13 In this set of illustrations, you can see how the full-color printing process uses the three primary hues plus black to “create” all the colors of the original painting. One printing plate is produced, by electronic scanning and color separation, for each color shown. The printing press contains a separate area for each ink color to be printed onto the paper. When the paper completes its pass through the press, the result is the full-color image. The neutral values of the black plate add value contrast to the primary colors.

Albert W. Porter (b. 1923).

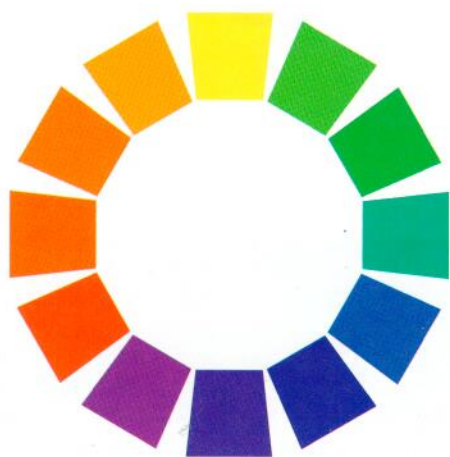
Hawaiian Mood, 1987.

Watercolor, 15" x 22" (38.1 x 55.9 cm). Courtesy of the artist.



The color wheel also shows six *intermediate colors* or hues. You can create these by mixing a primary color with a neighboring secondary color. For example, yellow (a primary color) mixed with orange (a secondary color) creates yellow-orange (an intermediate color). Mixing the primary and secondary colors creates the six intermediate colors shown. Mixing different amounts of these colors produces an unlimited number of hues.

A color wheel also illustrates other relationships among colors. One of the most important is the pairing of complementary colors. **Complementary colors**—such as blue and orange or yellow-green and red-violet—appear opposite each other on a color wheel. These pairings show the maximum visual contrast between colors. The line where two complementary colors meet seems to vibrate. Artists sometimes place complementary colors side by side to produce just such an effect.



4-14 Color wheel.



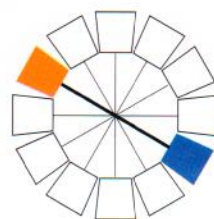
4-14a The primary colors.



4-14b The secondary colors.



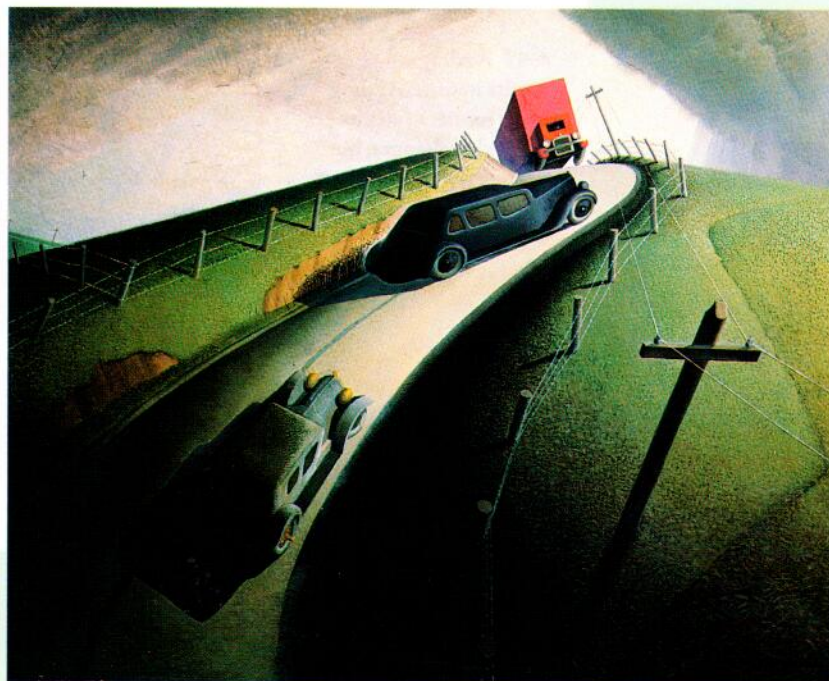
4-14c The intermediate colors.



4-14d An example of complementary colors.

4-15 How has Grant Wood used complementary colors to heighten the drama of this scene?

Grant Wood (1892–1942). *Death on the Ridge Road*, 1935. Oil on masonite panel, 39" x 46 1/16" (99 x 117 cm). Gift of Cole Porter, Williams College Museum of Art, Williamstown, Massachusetts.



Try it



Mix tempera or watercolor paints to make your own color wheel. Start with the primary colors. Then mix the secondary and intermediate colors. Paint the colors on posterboard or heavy white paper. Are the mixtures what you expected? If not, perhaps the primary colors were not pure or clean.

Value

In Chapter 3, you learned that value is the range from white to black or light to dark. When discussing colors, value refers to the lightness and darkness of a color, or the quantity of light that a color reflects. There may be as many value steps between the lightest and darkest appearance of a color as there are between white and black.

Adding white to a hue produces a *tint*, which is a lighter version of the color. Pink, for example, is a tint of red. There are many possible tints of each color. Each tint depends on the amount of white added. The left side of fig. 4-17 shows two possible tints of the original hue.



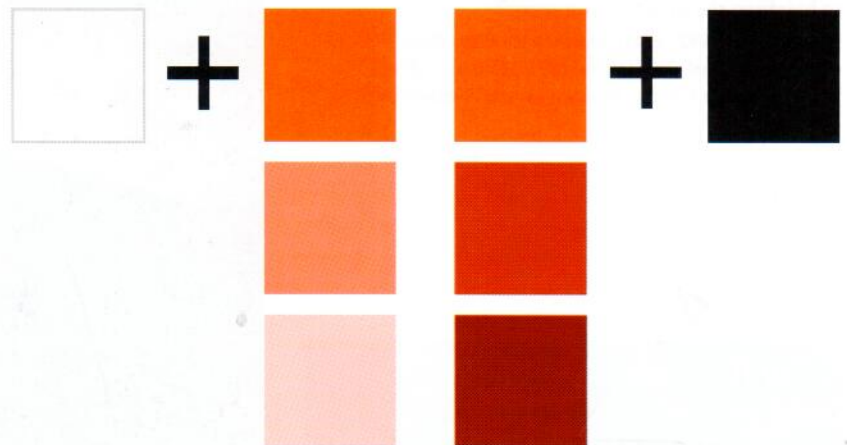
4-16 In this photograph, sunlight shines on the red surface of a motorcycle. The parts that reflect the most light are the lightest in value. Those opposite the light source, or in shadow, are darker in value.

Motorcycle. Photo by J. A. Gatto.

Note it

When you mix certain combinations of complementary colors, you might create a range of browns instead of grays. This occurs when there is more red and yellow in the mixture than blue. Remember this when the color brown is not available!

4-17 Adding white results in tints. Adding black results in shades. The value changes, but the hue remains the same.



Adding black (or a darker complementary color) to a hue produces a *shade*, which is a darker version of the color. There are many possible shades of each color. Each shade depends on the amount of black added. The right side of fig.4-17 shows two possible shades of the original hue.

In the example shown, a neutral—white or black—is added to a color (in this case, red). The value is changed, but the hue remains the same. You also can change a color by mixing it with a lighter or darker hue (such as in fig.4-18, by adding blue to purple). In that case, both the value *and* the hue will change.

4-18 Both value and hue are changed if a lighter and darker hue are mixed.



4-19a *Miss Amelia Van Buren*

4-19 Notice how the black-and-white reproduction allows you immediately to see the range of values used by the artist. The contrast between sunlit and shadowed areas is obvious. How does the black-and-white image help you better understand and appreciate the range of values?

Thomas Eakins (1844–1916). *Miss Amelia Van Buren*, c. 1891. Oil on canvas, 45" x 32" (114.3 x 81.2 cm). The Phillips Collection, Washington, DC.



Intensity

The third property of color is *intensity*. Intensity refers to the quality of light in a color. Intensity is different from value, which refers to the quantity of light that a color reflects. Intensity refers to the brighter and duller colors of the same hue. For an example, look at the two squares in fig.4–20. The top one has a higher degree of saturation, or strength. It is more intense than the one below it. Your investigations with color will show you that you cannot change value without changing intensity, even though these two properties of color are not the same.

You already know two ways to change the intensity of a color when mixing pigments: adding black to produce shades, or adding white to produce tints. After adding either of these neutrals, the resulting hue loses its intensity. The color becomes less and less intense as more black or white is added. A third way to change intensity is to mix any shade of gray with the hue. This is called a *tone*.

Mixing a color with its complementary color will also change intensity. As you mix complementary colors, bit by bit, a neutral gray is formed. This is because the complementary colors represent an equal balance of the three primary hues. In theory, the mixture should produce white, but the pigments in artists' materials are not as pure as the colors in a ray of light.



4–20 The top square has a higher degree of intensity than the bottom square.



4–22 Analyze the blues in this painting. Which blue is most intense? Can you suggest what the artist did to the other blues in order to change their intensities?

William H. Johnson (1901–70). *Going to Church*, c. 1940–41. Oil on canvas, 38 ¼" x 44 ½" (97 x 112 cm). National Museum of American Art, Smithsonian Institution, Washington, DC. Photo National Museum of American Art, Washington, DC/Art Resource, New York.



4–21 How would you describe the intensity of the colors in this blouse?

Panama (Cuna People). *Child's blouse*, 20th century. From San Blas Island, Cuna Yala region. Private Collection, Orlando, Florida.

Georges Seurat

Le Pont de Courbevoie

How is it that we can know a great deal about how artists from previous centuries worked? One way is to analyze clues they might have left behind. In the case of *Le Pont de Courbevoie*, Seurat made a careful sketch of the water scene he planned to paint.

The conté crayon study for the work shows that Seurat planned the composition of *Le Pont de Courbevoie* thoughtfully. The slight tilt of the sailboat masts, the position of the bridge and shoreline, and the curved tree on the right are found in the study and the painting. Seurat added items to the composition as he painted the canvas. These include the foreground sail, the two fishermen in the distant boat, and the two isolated figures in silhouette. The angled figure on the dock adds a sense of movement to the otherwise quiet composition. Seurat probably worked on the painting both in his studio

4-23a

Le Pont de Courbevoie
(detail).



and at Courbevoie, perhaps during several visits to the riverside.

Through extensive research, scholars have also learned about Seurat's use of color. Scholars disagree about how he worked. Some say that Seurat based his decisions on a scientific color theory. Others believe that he worked instinctively, his brush creatively flowing with colors that interlock with those underneath.

Most scholars believe, however, that Seurat's palette contained an assortment of pure colors (hues), an assortment of colors mixed with white (tints), and various whites. Because Seurat could not always obtain pure pigments, he was forced to use some colors that were only close to what he wanted. Today, we do not see the painting as Seurat planned or painted it: within a few months of its completion, some of the pigments faded. We can only imagine the original effect.

4-23 Georges Seurat used a painting technique called *pointillism*, in which paint is applied to the canvas in small dots or dabs. From a distance, the eye blends these dots to make an array of colors and values. The stillness throughout this work is a result of both the painting technique and the low intensity of the colors.

Georges Seurat (1859–91). *Le Pont de Courbevoie*, 1886–87. Oil on canvas, 18" x 21" (45.7 x 53 cm). Courtauld Gallery, London.

Try it

Mix two of the primary colors to make a secondary color. Then add a small amount of this new color to its complementary color. To study the range of intensities, continue adding a little more of the complementary color.



Color Harmonies

Have you ever said that certain colors “go well together”? Or that other colors “clash” when placed side by side? When designers and artists use combinations of colors to get certain results, they are using *color harmonies*. You have already read about one example of color harmony: complementary colors. Following are descriptions of other color harmonies that you might see in a design or wish to use in one of your own.

Analogous colors are next to each other on the color wheel. They have a single color in common. Because of this common color, they naturally relate well to each other. Fragonard used analogous colors in *A Young Girl Reading* (fig. 4-24). The color group is yellow, yellow-orange, and orange. These analogous colors give a warm and soothing quality to the work. What additional color is shown in the color wheel in fig. 4-25?

Another color harmony is *split complementary*. This is made up of a color plus the two hues on either side of that color’s complement (see fig. 4-27). For example, blue with yellow-orange and red-orange forms a split complementary. Such a combination forms a sharp contrast within a design. In fig. 4-26, the blue urn creates a startling contrast to the yellow-orange of the ceiling and red-orange of the floor.



4-24 What are the analogous colors in this painting?

Honoré Fragonard (1732–1806). *A Young Girl Reading*, c. 1776. Oil on canvas, 32" x 25 ½" (81.1 x 64.8 cm). Gift of Mrs. Mellon Bruce in memory of her father, Andrew W. Mellon ©1998 Board of Trustees, National Gallery of Art, Washington, DC.



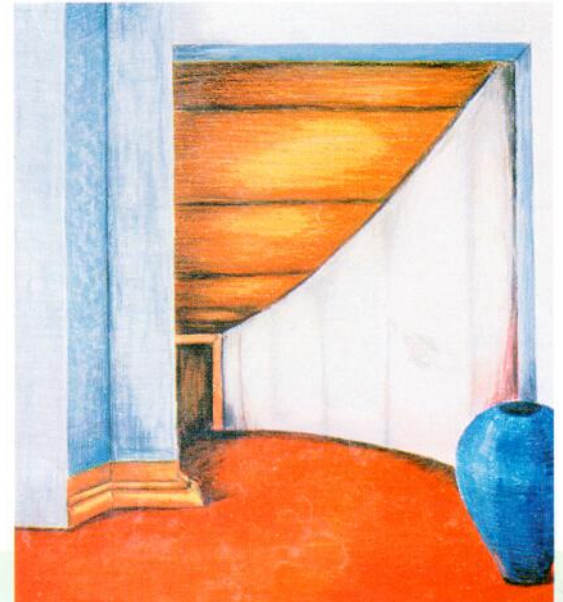
4-25 An example of analogous colors.



4-27 An example of split complementary colors.

4-26 Color studies such as this student work heighten our awareness of how color can help create a dynamic environment.

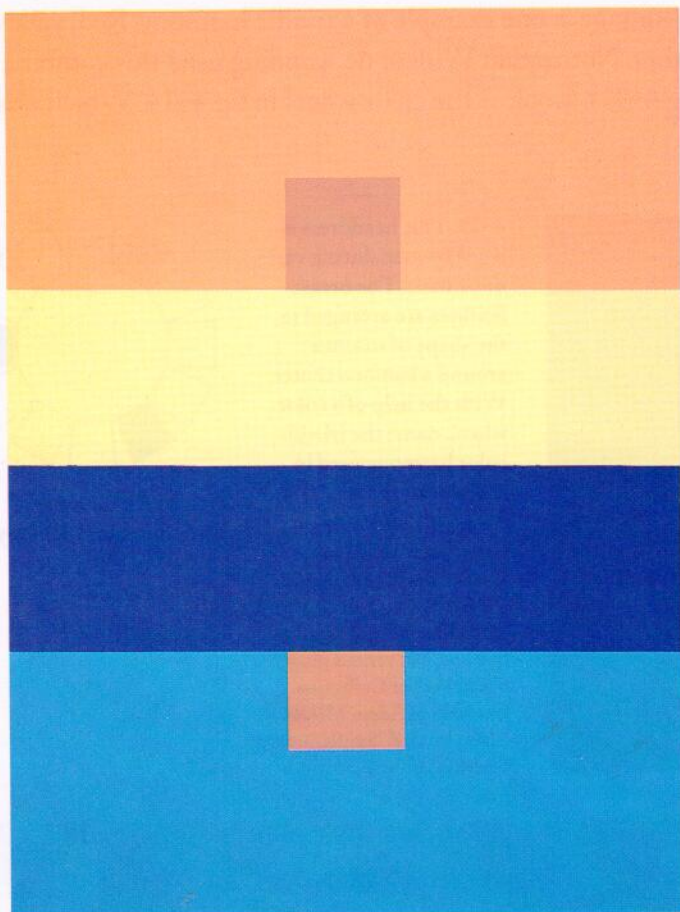
Iza Wojcik (age 17). *Down the Hall*, 1996. Oil on matte board, 18" x 24" (45.7 x 61 cm). Lake Highlands High School, Dallas, Texas.



Try it



How many groups of analogous colors can you discover on the color wheel? Make a painting or design, using only analogous colors. You may add black, white, and gray to make shades, tints, and tones.



The Interaction of Color

Artist Josef Albers began a study of color in the 1950s called *Homage to the Square*, which he continued to develop until his death in 1976. His series showed that a color can produce unpredictable effects upon the colors in close proximity to it. For example, in this painting, Albers caused three colors to appear as two. The vertical ochre stripe, interrupted by yellow and dark blue stripes, appears to be two squares of different brown hues.

Josef Albers (1888–1976). First plate of *The Interaction of Color*, 1963. Bauhaus-Archiv Museum für Gestaltung, Berlin. ©1999 The Josef and Anni Albers Foundation/ARS, New York.

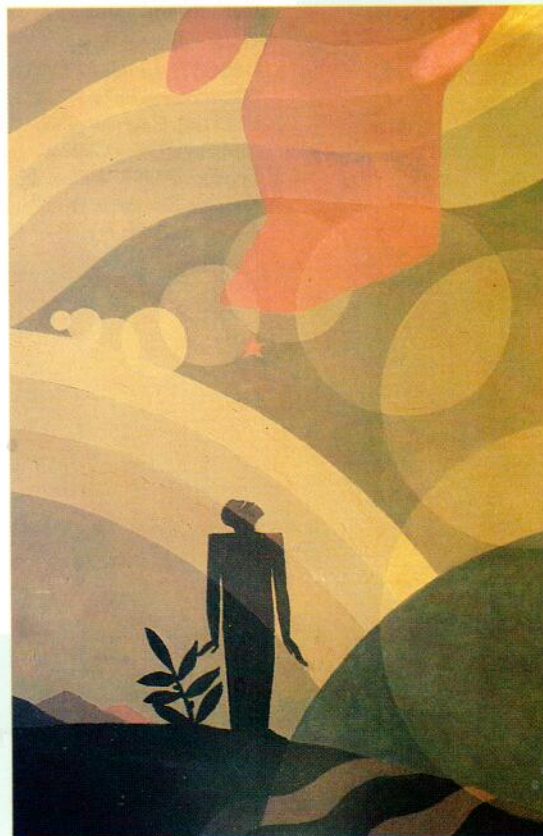
Try it



Depending on the color next to it, any color may vary in appearance. Cut a square of bright color from a magazine, or use paint to create a 2" x 2" sample of color. Place this color swatch in different color environments: on darker and lighter solid colors, on neutrals, on patterned paper. Observe how the color appears to change when placed against different environments.

4–28 Describe the colors used in this work.

Aaron Douglas (1899–1979). *The Creation*, 1935. Oil on masonite, 48" x 36" (121.9 x 91 cm). The Gallery of Art, Howard University, Washington, DC.



Triadic harmony involves three equally spaced hues on the color wheel. The group of blue-green, red-violet, and yellow-orange is one example of a triadic harmony. Red, yellow, and blue (seen in fig.4-29) is another. Notice that Willem de Kooning used this combination in the painting *Untitled V* (fig.4-31). Look at the color wheel in fig.4-14. Which other triadic harmonies can you find?



4-29 This headdress is worn by men during various rituals. The breast feathers are arranged in the shape of rosettes around a bamboo center. With the help of a color wheel, name the triadic color harmony used in this work.

Amazon. Karajá tribe (Araguaia River, Mato Grosso, Brazil). *Lori-lori*, c. 1920. Tail and breast feathers of the blue and gold macaw, bamboo, and various plant fibers. Mekler Collection. Courtesy of Adam Mekler. Photo by E. Z. Smith, Fresno, California.



4-30 An example of triadic color harmony.

4-31 Compare this painting to the feather cap in fig.4-29. Consider the decisions about color that each artist must have made when selecting feathers and paint.

Willem de Kooning (1904-97). *Untitled V*, 1983. Oil on canvas, 88" x 77" (223 x 195 cm). Courtesy of the Anthony d'Offay Gallery, London. ©1999, Willem de Kooning Revocable Trust/ARS, New York, NY.



An artist may sometimes use only one color or hue within a design. If a painting is made using only one hue, plus black and white, it is called *monochromatic*. In a monochromatic work, contrast is created by the use of lights and darks. Because only one hue is used, all the parts of a monochromatic design work well together.



4-32 Why might the artist have chosen blue as the principle color in this work?

Lyonel Feininger (1871–1956). *Blue Coast*, 1944. Oil on canvas, 18" x 34" (45.7 x 86.4 cm). Columbus Museum of Art, Ohio: Museum Purchase, Howald Fund. ©1999 ARS, New York/VG Bild-Kunst, Bonn.

Discuss it

If you were a designer (interior, industrial, graphic, or fashion), what use would you make of color harmonies? Would you always use the hues at their full intensity? What might you mix with them to lessen their intensity?

Try it



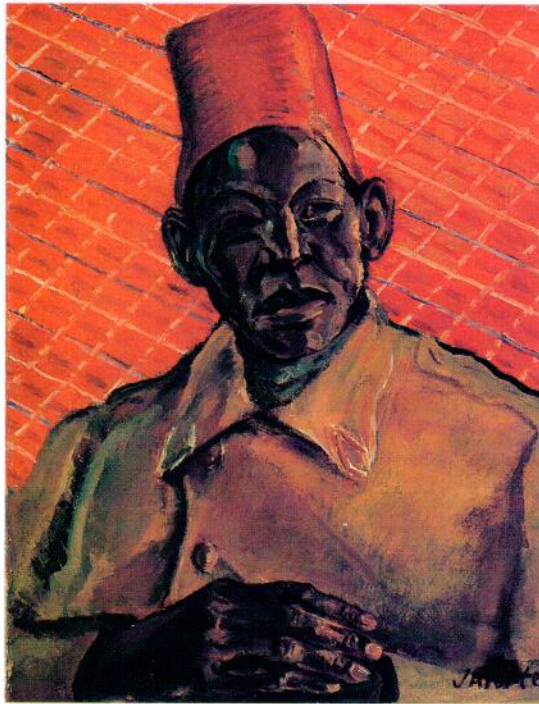
Make a design with a triadic color harmony. Select the brightest hue for the smallest area of the design.

Use the same triadic color harmony to create a different design, in which you use the brightest hue for the largest area. Then compare the moods or feelings produced by the two designs.

Warm and Cool Colors

Warm colors are the hues that range from yellow to red-violet. These colors are associated with warm objects or circumstances. The colors of fire, the sun, and desert sand, for example, are in the warm-color range. Look at the color wheel (fig. 4-33) and the line that divides it in half. This line separates the warm colors from the cool colors. The *cool colors* are the hues that range from yellow-green to violet. What are some examples of things that have these colors?

We react in certain ways to these colors. We sense that warm colors, especially reds and oranges, seem to come forward in a painting or photograph. These colors also make shapes and forms appear larger. We sense that cool colors, especially greens and blues, seem to recede, or move backward, in a design. These colors make shapes and forms appear smaller. Notice how Chagall contrasts warm and cool colors in *The Farm, The Village* (fig. 4-37).



4-34 Notice how the artist picked up the warm reds, yellows, and oranges of the background and clothing, and used them to create accents on the brown skin of the figure.

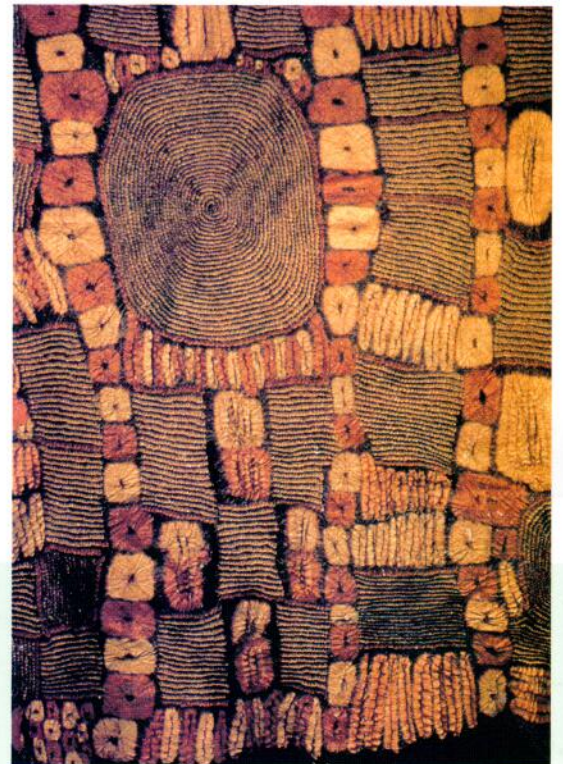
James A. Porter (1905–71). *Soldado Senegales*, 1935. Oil on canvas, 38 ¼" x 30" (97.2 x 76.2 cm). National Museum of American Art, Smithsonian Institution, Washington, DC. Photo National Museum of American Art, Washington, DC/Art Resource, New York.



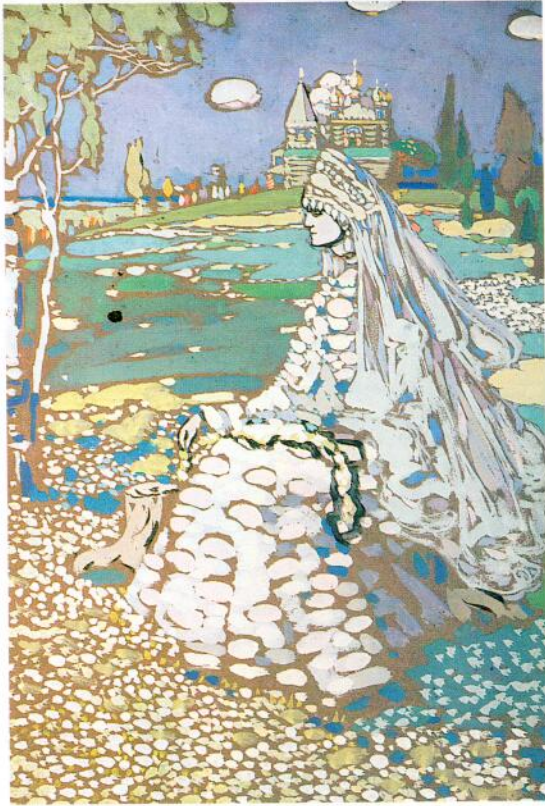
4-33 Warm and cool colors.

4-35 Raffia is a fiber product of the raffia palm of Madagascar, and is used as a textile.

Baule (Avikam or Dida), Ivory Coast. *Raffia work* with plangi and tritik decorative technique, fragment, 68 ¼" x 70 ½" (173 x 179 cm). Second half of 20th century. Depot Museum voor Volkenkunde, Rotterdam.



A painter's use of cool colors might emphasize the icy feeling of a wintry seascape. On the other hand, warm colors might express heat in a photograph of workers at a blast furnace. These examples are obvious, but artists and designers do use these characteristics of color to help communicate their feelings and ideas. Look at the painting *Russian Beauty in a Landscape* (fig.4-36). What do you think the artist hoped to convey by using such colors?



4-36 Compare and contrast this work with fig.4-34. How would you describe the individual and setting depicted in each?

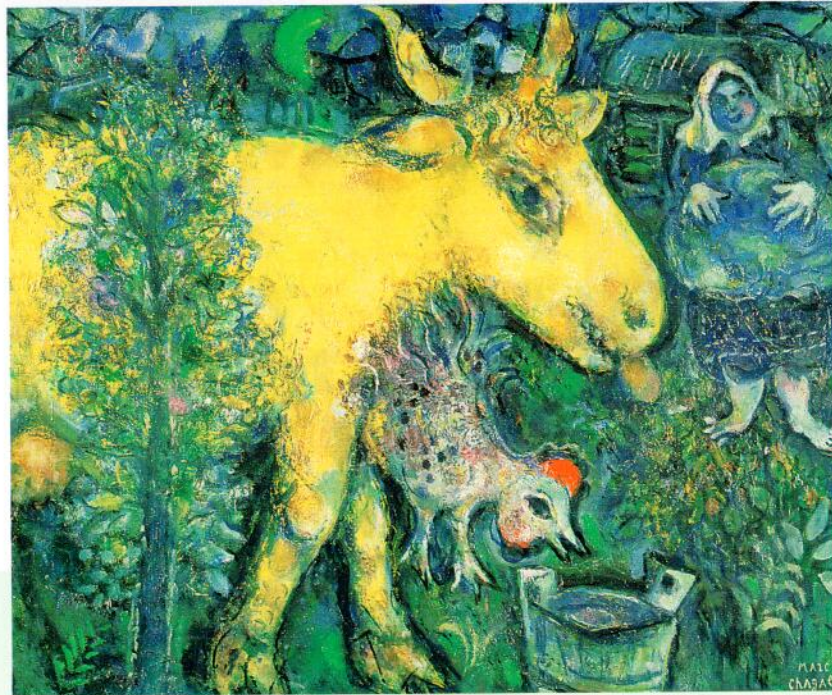
Wassily Kandinsky (1866–1944). *Russian Beauty in a Landscape* (Russische Schöne), 1904. Gouache, 16 3/4" x 10 5/8" (42.6 x 27 cm). Städtische Galerie im Lenbachhaus, Munich.

Note it

If a design has mostly cool blues except for a spot of red-orange on it, the small area of warm color will seem to float above the surface. This occurs because of the length of the lightwaves reflected from the surface and the way your mind interprets them. How do you think an artist or designer might use this knowledge? If you wanted a room to appear larger, would you paint it with warm or cool colors?

4-37 Artists sometimes combine warm and cool colors. Compare this work to the painting *Death on the Ridge Road* (fig.4-15). How did each artist use the warm color?

Marc Chagall (1887–1985). *The Farm, The Village*, 1954–62. Oil on canvas, 24" x 29" (61 x 73.7 cm). Courtesy Christie's Images, London/Superstock. ©1999 ARS, New York/ADAGP, Paris.



Another Look at Color



4-38 Which portion of this painting shows analogous colors?

James Rosenquist (b. 1933). *House of Fire*, 1981. Oil on canvas, 78" x 198" (198.1 x 502.9 cm). Purchase Arthur Hoppock Hearn Fund, George A. Hearn Fund, and Lila Acheson Wallace Gift, 1982, 1982.90.1a-c. Photo ©1982 The Metropolitan Museum of Art, New York.

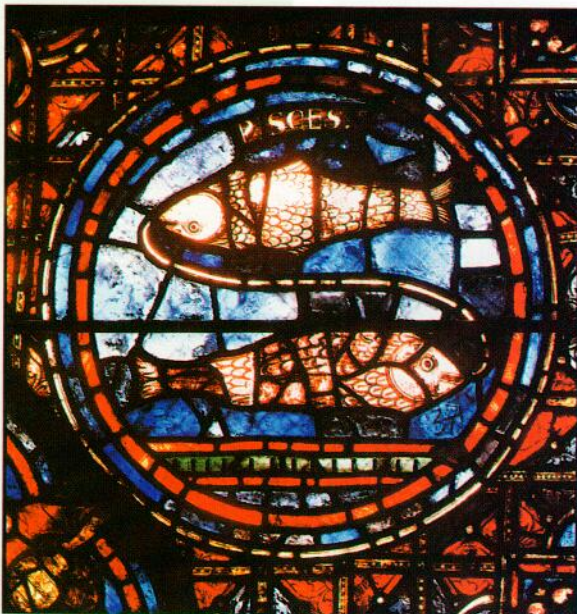


4-39 Compare the color intensities in this sculpture with those in the pastel drawing in *The Millinery Shop* (fig. 4-41).

Karel Appel (b. 1921). *The Tulip*, 1971-86. Stainless steel and enamel, 84" x 108" (213.4 x 274.3 cm). Courtesy of the Marisa del Re Gallery, New York. ©1999 Karel Appel Foundation/ARS, New York, NY.

4-40 Use terms from this chapter to describe the different ways color was used in this window.

Chartres, Zodiac stained glass window from the south ambulatory: *Labors of the months*, detail of February, Pisces. 13th cent. Cathedral, Chartres, France. Giraudon/Art Resource, NY.





4-41 Edgar Degas was a master of color. Consider how he used color to lead the eye through this scene. What kinds of colors did he use, and how did he arrange them in the composition?

Edgar Degas (1834–1917).
The Millinery Shop, 1884/90.
 Oil on canvas, 39 3/8" x 43 3/8"
 (100 x 110 cm). Mr. and
 Mrs. Lewis Larned Coburn
 Memorial Collection,
 1933.428. Photograph
 ©1998, The Art Institute of
 Chicago, All Rights
 Reserved.

4-42 Analyze the color combinations used in this student work.

Autumn Denton (age 18),
Windows of My Life, 1996. Oil
 pastels, 11" x 14" (28 x 35.5 cm).
 Lake Highlands High School,
 Dallas, Texas.



Review Questions

1. How do we perceive color?
2. What colors are not found in the light spectrum? What is the term for these colors?
3. Name the primary, secondary, and intermediate hues used in mixing pigments.
4. How are the secondary colors created?
5. To what does the term *value* refer in color mixing?
6. Explain how to lessen the intensity of a color.
7. Name five types of color harmonies. List a set of colors as an example of each harmony.
8. Why did Georgia O'Keeffe make the flowers in her paintings so large?
9. Describe how paint is applied in pointillism. Which artist is known for developing the pointillism painting technique?