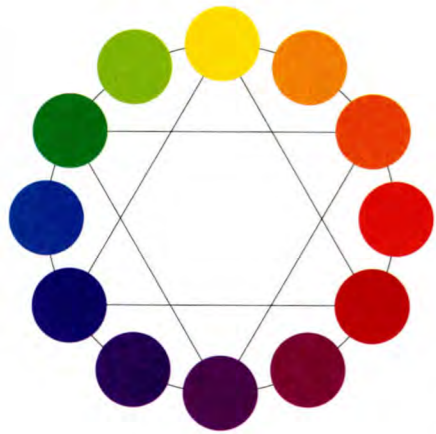


CHAPTER 3

Learning the Vocabulary of Color



“Delacroix [the nineteenth-century French artist Eugène Delacroix] was perfectly familiar with the complementary circle: he sketched one on a drawing of about 1839 and towards the end of his life seems to have kept a painted version in his studio.”

M. Platnauer, *Classical Quarterly* 15, 1921

SINCE LANGUAGE plays an important role in color, simply being able to use the vocabulary of color is immensely helpful in seeing, naming, and mixing colors. The basic vocabulary, derived from color theory, consists of fewer than a dozen essential terms. I present these terms in this chapter, and I urge you to learn and memorize them. The purpose is to set in your mind the *language structure* of color developed over the centuries by artists and color theorists. This will help you to understand and put into practice the fundamental principles of seeing and using color.

The goddess of memory in Greek mythology was Mnemosyne (pronounced ni-mo-sen-ee). Her name has come down to us as the word *mnemonic*, meaning “memory aid.” The color wheel is a truly valuable memory aid for artists, who often keep one tacked up in the studio for quick reference. For the rest of this book, the color wheel will be

our mnemonic, and, because of its importance, you will construct one in chapter 5. This may sound like a return to sixth grade, but, again, remember its origin in Newton’s great intellect.

Color expert John Gage has written that when Newton “rolled up” the rainbow hues into a circle (Figure 3-1), he brought two powerful ideas into being: First, color relationships are more easily visualized and memorized when arranged in a circle; second, that with colors so arranged, the inherent, locked-in relationships of the spectral hues are evident—the *similarity* of colors adjacent to each other on the wheel, and the *contrast* of colors opposite each other. These newly perceived relationships gave rise to the vocabulary of color still used today.

For example, the technical terms that describe Newton’s similarity and contrast are, respectively, *analogous hues* (colors next to each other on the wheel) and *complementary hues* (colors pairs opposite each other on the wheel). These very useful terms are of prime importance, but, to understand them, we first need to identify the three basic sets of colors that make up the twelve-hue color wheel: the primaries, the secondaries, and the tertiaries.

The Three Primary Colors

The three spectrum colors yellow, red, and blue are equidistant from one another on the color wheel. To help you visualize and recall their positions, keep in mind that they can be connected by an imaginary equilateral triangle within the circle (Figure 3-2). These three colors are the basic building blocks of color for the artist; they are called “primaries” because you must have them to start with. *You cannot make spectrum yellow, spectrum red, and spectrum blue by mixing any other pigments.*

Theoretically, all other colors—up to sixteen million or more—are mixable given just these three spectrum hues. In practice, however, the chemical limitations of the

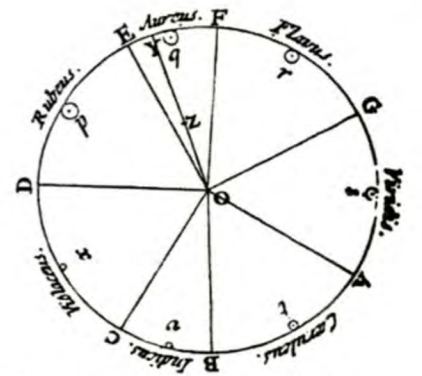


Fig. 3-1. Newton's color circle from his *Opticks*, book I, part II, London, 1704.

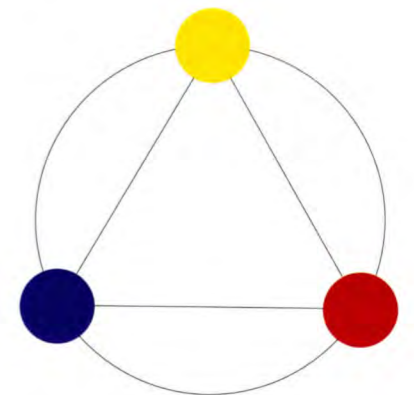


Fig. 3-2. Notice that the three primaries are connected by an equilateral triangle within the circle.



Fig. 3-3. Cyan, yellow, and magenta: the three primary colors of printing.

To complicate color even more, the three primary colors of light (the so-called additive colors) are green, red, and blue. Perception expert Carolyn Bloomer explains:

“Additive colors apply to computer and video images and to theatrical lighting. The screen of a color TV or computer monitor is made up of tiny dots of light (called *phosphors*) grouped in red/green/blue sets (known as *pixels*). The phosphors emit colored light when excited by electrons; the amount of light emitted depends on the number of electrons striking it.

Varying the red, green, and blue combinations of phosphor excitement within the pixels can produce a full range of colors. You can see the pixels on a TV or computer screen by looking at it through a strong magnifying glass.”

Bloomer, *The Principles of Visual Perception*

pigments themselves undermine this theory, illustrating, incidentally, one of the ways that actual practice diverges from theory. As you will see below, artists' colors are not necessarily true spectrum colors. Trace chemicals, especially in the red and blue pigments, reflect light rays other than single, pure wavelengths, causing problems in mixtures with other pigments. Therefore, artists must supplement the three primaries by buying additional pigments whose chemical structures do yield clear hues in mixture.

At this point, I will digress for a moment to make note of an argument that has been going on for many years: whether there exist three primary *pigments* for painters that work as well as the primary inks, dyes, and chemicals used in printing and dyeing. Those primaries are *cyan*, a deep greenish blue, *yellow*, and *magenta*, a brilliant purplish pink, and they reflect the pure spectrum wavelengths without distortion (Figure 3-3). Cyan, yellow, and magenta are aligned with the physiology of human color perception and, in printing, yield all colors from just those three. Life for the painter would be much simpler with readily available, fade-proof, reliable, nontoxic true spectrum primary pigments, especially in oil paints, watercolors, and acrylics, from which all colors could be derived.

So far, it hasn't happened. True, you will find many art materials catalogues listing “Spectrum Cyan,” “Spectrum Magenta,” and “Spectrum Yellow.” I've tried these pigments, and in every case, have returned to the traditional palette of colors I list for you in chapter 4. Later on, you may want to try these spectrum colors if you are curious, and you may find pigments that give better results than I was able to achieve.

I have no doubt that chemists will eventually succeed in formulating true red, yellow, and blue pigment primaries. For now, however, our only true pigment primary is among the yellow pigments. Because of limitations in red pigments, the artist needs two reds to start; among our blue pigments, there is no ideal primary blue.

The Three Secondary Colors

Orange, violet, and green are called “secondary colors.” Like the primaries, these three hues are equidistant from one another on the color wheel. They are called secondaries because each is theoretically born of primary parents: orange derives from red and yellow, violet from red and blue, and green from blue and yellow. In theory, you should be able to mix the secondary hues from the primaries; in practice, however, the results are very muddy hues. Again, this is due to the chemical limitations of artists' pigments. Since at present there is no way around this problem, the painter learns to deal with it by buying these three secondary colors as separate pigments.

The Six Tertiary Colors

The tertiary (pronounced *ter-she-air-ee*) colors are the third-generation hues. Each is formed by combining a primary and a secondary hue. These six intermediate colors all have hyphenated names that indicate the two source colors: *yellow-orange*, *red-orange*, *red-violet*, *blue-violet*, *blue-green*, and *yellow-green*.

Looking at the color wheel in Figure 3-5, you will see that yellow-orange (a tertiary) lies between yellow (a primary) and orange (a secondary). Note that for all six tertiaries, the name of the primary comes first: *yellow-orange*, *red-violet*, *blue-green*, and so on.

Analogous Colors

Analogous colors are any colors lying next to each other on the color wheel, such as orange, red-orange, and red. Analogous colors are inherently harmonious because they reflect light waves that are similar. Usually, analogous colors are limited to three, such as blue, blue-green, and green. A fourth—yellow-green, for example—is allowable, and

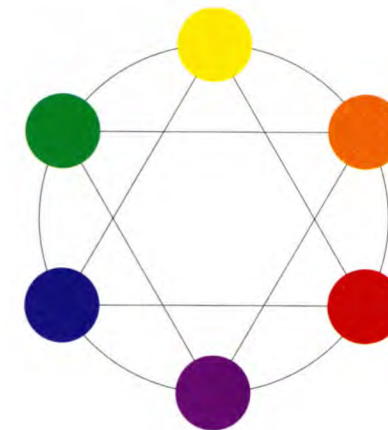


Fig. 3-4. The three secondary colors are connected by an upside-down equilateral triangle. Together, the primary colors and the secondary colors form a six-sided star.

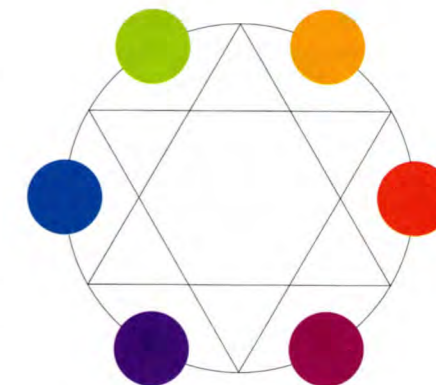


Fig. 3-5. The six tertiary colors.

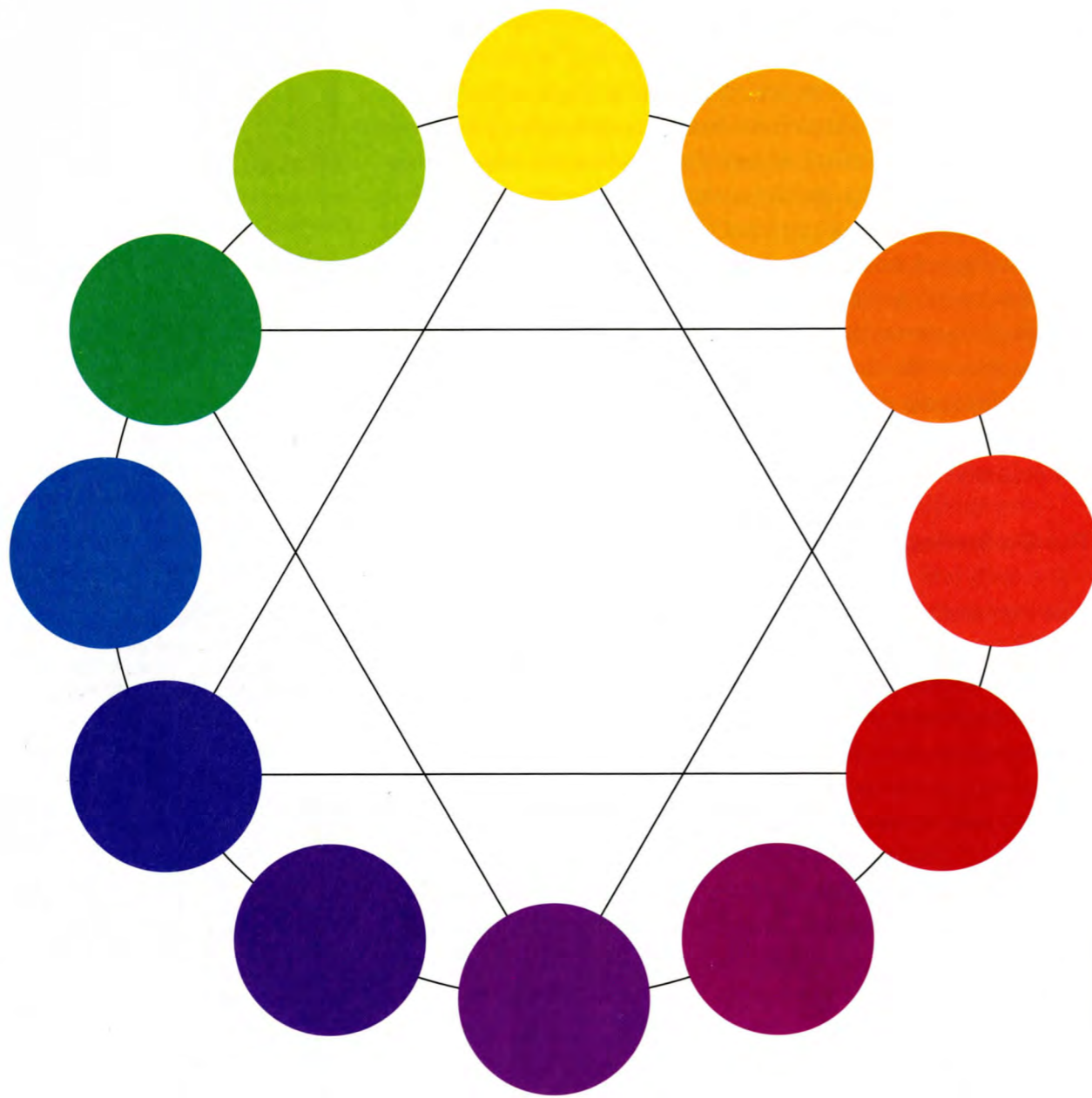


Fig. 3-6. Notice that each of the six tertiary colors comes in between two points of the six-pointed star formed by the primary colors and the secondary colors.

possibly a fifth, yellow, as shown in Figure 3-6. The next color on the circle, however—yellow-orange—will cancel the analogical sequence because the orange in yellow-orange is *opposite* blue on the wheel and reflects opposing wavelengths.

Analogous colors, therefore, can be thought of as small slices of the color wheel—three, four, or, at most, five color wheel hues (Figure 3-7). Lord Leighton's painting *The Maid with the Golden Hair* (Figure 1-2 on page 5) is a study in the analogous colors yellow, yellow-orange, orange, and red-orange, with just a touch of blue-green to provide complementary contrast.

Complementary Colors

Complements are pairs of colors that are opposite each other on the color wheel. My students sometimes mistake the word "complement" for the word "compliment," thinking that complementary colors are colors that go well together. Not so. The true meaning of the word complement is "to make complete" or "to perfect something." In color, complementary colors complete and perfect the central, fundamental role of the primary colors as the theoretical parents and progenitors of all colors. *Any two complements contain the complete trio of primaries.* Even though the artist's primary pigments are not perfect, as you have seen, the following statements are theoretically true. Refer to the color wheel on page 24 (Figure 3-6) to check the following statements:

- Yellow and its complement, violet (made up of red and blue), complete the primary trio—yellow, red, and blue.
- Red and its complement, green (made up of yellow and blue), complete the three primaries.
- Blue and its complement, orange (made up of yellow and red), complete the primaries.

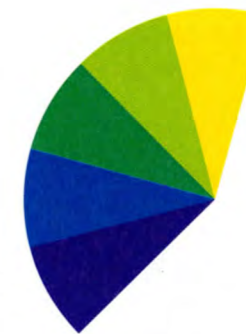


Fig. 3-7. Analogous colors from yellow to blue.

The color of artists' pigments is determined by the wavelengths of the portion of the light ray that remains after the rest has been subtracted out. Hence, pigment mixing is referred to as a *subtractive* process—color being the remainder.

Yellow pigment, for example, is a chemical substance that absorbs all light wavelengths *except* those that reflect the wavelength we perceive as yellow.

As perception expert Carolyn Bloomer states, "... paint pigments do not reflect a single wavelength. Instead, they reflect a wider portion of the spectrum... Hence, any paint color is actually a mixture of colors. Artists must work empirically, with impure materials" (*The Principles of Visual Perception*).

The tertiary colors and their complements follow the same rule. Each pair of tertiary complements is made up of the three primaries. For example, yellow-green is the complement of red-violet (Figure 3-8). If you think it through, you will see that yellow-green contains yellow and green (made from blue plus yellow). Its complement, red-violet, contains red and violet (made from red plus blue). These tertiary complements, therefore, also contain the complete primaries—yellow, red, and blue—again perfecting the primary triad.

Any pair of complements, therefore, does indeed contain all three primaries. In fact, many individual hues also contain the three primaries. *No matter how remote a hue may seem to be from the color wheel primaries of red, yellow, and blue, that hue is likely to contain all three primaries.* Take, for example, the light brown color of a paper bag: This color is actually a pale, dull orange (dulling orange yields brown) made of red mixed with yellow to make orange, lightened with white, then dulled with orange's complement, blue (Figure 3-9).

Summing up, the first secret to knowing how to mix a color that you see is in understanding the structural relationships of the color wheel: primary, secondary, and tertiary hues; analogous colors; and complementary colors. The next step is knowing how to identify the three *attributes* of a color: hue, value, and intensity.

Naming Colors: The L-Mode Role in Mixing Colors

In order to mix colors, you must first name, or identify, them in terms of their three attributes: hue, value, and intensity. The reason colors must be named by using this special language of color is that there is almost never a direct match between the colors that we see and the pure pigments that we must use to mix those colors. It would require hundreds, perhaps thousands, of tubes of paint to make direct matches possible. In actual practice, the num-

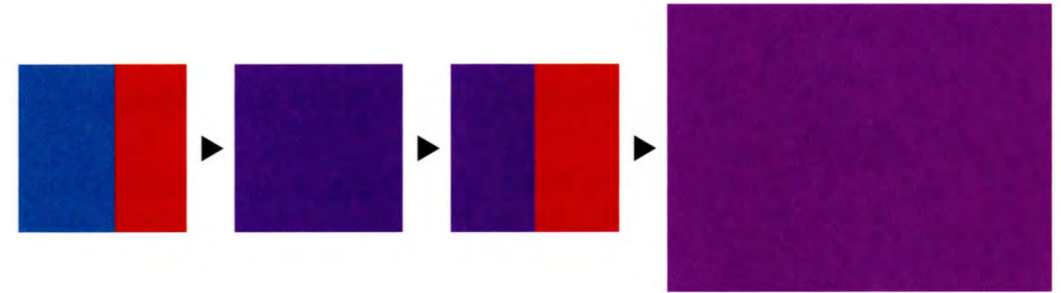
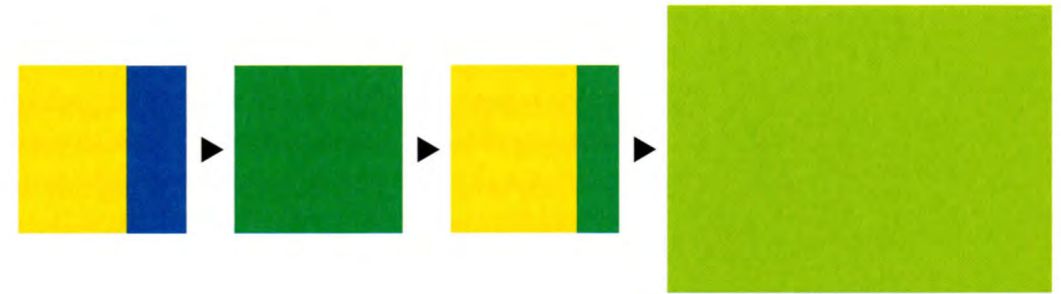


Fig. 3-8. Every pair of complements such as yellow-green and red-violet contains the complete trio of primaries: red, yellow, and blue.

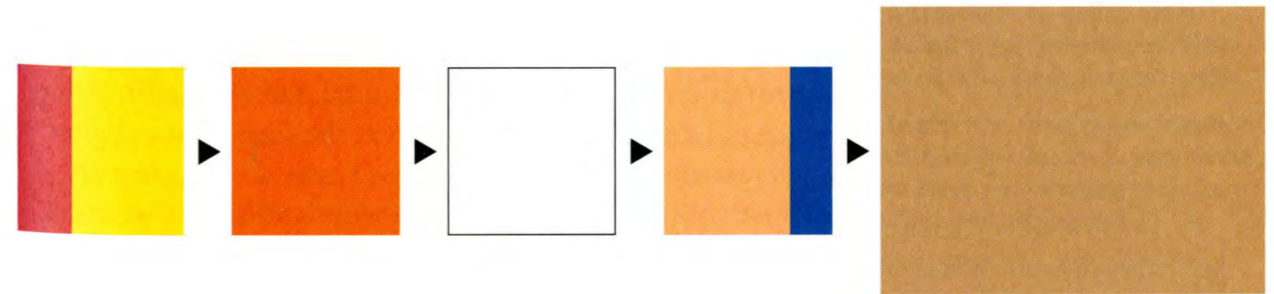


Fig. 3-9. Even the color of a brown paper bag contains all three primaries.

ber of pure pigments we work with is usually about eight to ten—the three primary and three secondary hues of the color wheel, plus black and white and perhaps two or three additional basic colors. Confronted with colors such as an overcast sky or a peach-colored rose, the artist has no corresponding pigments to match those hues. To achieve these colors, the artist must mix them, using the attributes of a color as a three-part description in order to unlock the “recipe” for mixing that specific color. The next section explains the attributes of color.

The Three Attributes of Color: Hue, Value, and Intensity

To be able to mix any color he or she sees, the artist must first learn how to see into a perceived color in order to identify: (1) the *hue*, (2) the *value*, and (3) the *intensity*. The perceived color is then mixed based on that guiding recipe. Every color existing in our world can be identified by this three-part description. To name a color, we first name the *hue* by identifying the basic source of the color (one of the twelve color wheel hues). Next, we determine the *value*—the color’s lightness or darkness. Last, we state the *intensity*—the color’s brightness or dullness.

In a way, naming a color by its attributes is similar to identifying an object. We ask ourselves first “In what category is this object?” then “What is its size and shape?” and, last, “Of what material is it made?” The object might be, for example, a box, six inches long, rectangular in shape, made of wood. It might be a vase in the shape of a cylinder, twelve inches high, made of glass. These descriptions are precise enough to give us a fair understanding of the object. The same self-questioning process also works for naming colors. An artist painting a scene is confronted again and again, until the painting is finished, with the question “What is that color?”

Naming the Hue

To answer that question, the artist must first name the first attribute, *hue*. Figure 3-10 shows a color that might be called “lavender” or “mauve.” Those “fashion” names are not helpful if you are trying to mix the color you see. You need to say to yourself, “Putting aside for a moment the lightness or darkness of this color as well as its brightness or dullness, which of the basic twelve color wheel hues is the starting point for the hue in Figure 3-10?” You then (correctly) decide that the starting point is the color wheel tertiary red-violet.

Naming the Value

The question you ask yourself to determine this second attribute is “How light or dark is this red-violet relative to a seven-step value scale from white to black?” For this step, compare the color in Figure 3-10 to the value scale in Figure 3-11. You decide that the red-violet is light (level 2). You have now named two of the three attributes.

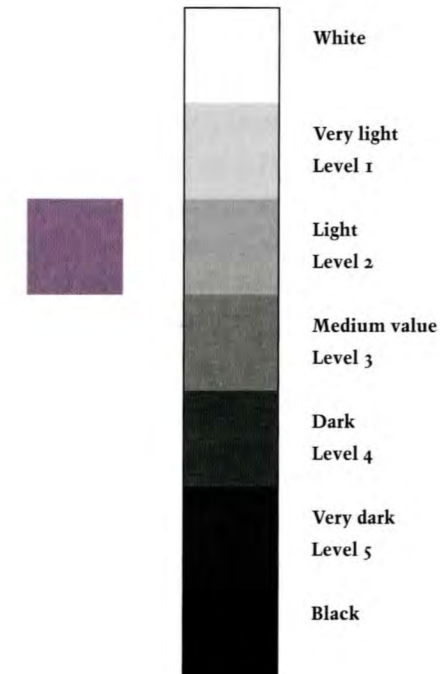


Fig. 3-10. The color “mauve.”

The first step in naming is to state the color wheel source of this hue: red-violet.

Note that the “fashion” name of the color, *mauve*, is not useful for mixing, because you have no such pigment color.

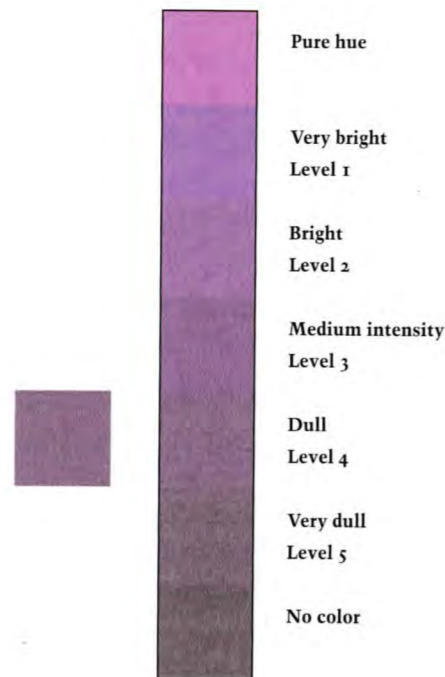
Fig. 3-11. Value scale next to mauve.

Note that we are using only seven steps from white to black and (in Figure 3-12) seven steps from a spectrum hue, such as orange, dulled by its complement, blue, to no color for an intensity scale.

In practice, there can be hundreds of minute value steps from white to black and intensity steps from a pure hue to no color.

Research shows, however, that seven or so value and intensity steps are about the maximum a human can retain in visual memory.

Fig. 3-12. Intensity scale next to mauve.



Naming the Intensity

The third attribute, intensity, is the brightness or dullness of a color. The question you ask yourself is, "How bright or dull is this color relative to an intensity scale from the brightest color possible (one of the pure color wheel hues) to the dullest color possible (where the color is so dull you cannot discern any hue at all in it)?" Consulting the intensity scale in **Figure 3-12**, you decide that the hue is dull (level 4). You have now identified the color by its three descriptors:

<i>Hue:</i>	<i>Value:</i>	<i>Intensity:</i>
Red-violet	Light	Dull

You can then proceed to mix the hue by mixing white with red-violet and dulling it with red-violet's complement, yellow-green, since adding a color's complement is the best way to lower its intensity.

From Naming to Mixing

Let's use a hypothetical example of an artist at work to demonstrate how you will go from learning the vocabulary of color to how you will use the vocabulary in seeing and identifying colors. Imagine an artist painting a landscape, which includes a weathered brick wall. The sun shines on part of the wall, and the painter is at the point in the work that she needs to mix a hue for that part of the painting. She must decide, "What is the color of that sun-drenched section of the wall?" This requires, first and foremost, *seeing* what the actual color is, naming it, then mixing it.

The artist looks closely and perhaps feels surprised that the bright sunlight has changed her *expected* color of the bricks (in terms of color constancy, the whole wall "should be" brick red). A novice in color might identify the hue as "beige," but the experienced painter knows that is not descriptive enough to mix the color. She first needs to know which of the pure color wheel pigments is the basis of the hue, because those are the colors she has on her palette. Even though the color is very pale and dull, she sees that the underlying tint is reddish and orangish and therefore knows that the base color of the mixture will come from the color wheel tertiary, red-orange. (This sounds more difficult than it is. Remember, there are only twelve basic color wheel hues, all derived from three primaries, yellow, red, and blue.)

Next, the artist must determine the value level and intensity level. By mentally comparing the value of the wall color with an imaginary scale from white to black, the painter decides that the value is very light (about level 1, just below white). Then, she compares the intensity level to an imaginary 1- to 7-level scale from the brightest to the dullest level for that particular color wheel hue, red-orange, and she is then able to decide that the wall color is of medium intensity (about level 3). Now the artist can name the perceived color by citing its three attributes: "the hue

You will encounter many variations in color terminology, a problem that contributes to the complication of color.

The following list includes the most frequent variations:

Value:

- Shades
- Tints
- Luminance
- Luminosity

Intensity:

- Chroma
- Chromaticity
- Saturation

Gray scale hues:

- Neutrals
- Achromatics

Hue, value, and intensity, however, are the simplest and most widely used terms for the three attributes of color.

Fig. 3-13. Value and intensity scales.



is red-orange, the value is very light (value level 1), and intensity is medium (level 3)." Figure 3-13 shows examples of value and intensity scales.

Having *seen into* the color on the brick wall and having identified it in terms of its three attributes, the artist can begin mixing the color, perhaps with some unspoken verbal prompts. "I first need some white, then cadmium red and cadmium orange to make a pale red-orange. Next, I need to *dull* the color. Let's see, the opposite of red-orange is blue-green. I'll mix permanent green and ultramarine blue to make blue-green for dulling the pale red-orange."

When the mixture looks right (meaning *red-orange*, *very light*, and *medium intensity*), the painter tests it either on a scrap of paper or in the painting itself. Seeing that the mixture has gone a bit too dull, she perhaps adds a speck of yellow to restore colorfulness lost through lightening the

red-orange with white. (I explain this in a later chapter.) Once the mixed hue is right, the artist then turns back to the painting to reenter *R-mode* and continue her work. Note that the actual time it might take for the whole seeing, naming, and mixing process described above is likely to be no more than a minute, or two at most.

Moving from Theory to Practice

You now have the essential information you need to start putting into practice what you have learned about color. Before we leave these language-based aspects of color, however, I urge you once more to be sure you have memorized the vocabulary of color: the names of the three primary, the three secondary, and the six tertiary hues; the meaning of the terms analogous and complementary colors; and the attributes of color—hue, value, and intensity. I urge you also to retain your awareness of the complications of seeing color, which you read about in chapter 2: color constancy (seeing only colors you expect to see), simultaneous contrast (the effects of adjacent colors on each other), and the unexpected effects of light on color. As we start working with paint in the chapters ahead, you will put this language foundation to good use in seeing color with new eyes.

When the color you are about to mix is pale or high in value, it is usually best to start with white and then add the colored pigments.

If you reverse that order, you may find that it takes a great deal of white to lighten the "strong" hues sufficiently. Often, you end up with a great blob of paint on your palette when you may have needed only a small amount.

The Symbolic Meanings of Colors

It is important to note that among color experts there are no hard-and-fast rules about color meanings, and while experts generally agree on broad meanings, there are many disagreements about the credibility of specific meanings. One of the complicating factors is that nearly every color has both positive and negative connotations, an ambiguity that does not fit well with scientific inquiry. Yet, we somehow know that colors are important to us in ways that are hard to pin down, and that the ambiguity of colors does not negate that importance. As Enid Verity puts it in *Color Observed*, "... color is recognized as a strong emotional factor in the lives of most normal people. Certainly the psychological and emotional aspects of color have the most popular appeal, and, although scientific and medical opinion may be skeptical of the rational validity of these aspects, the apparent universality of general interest, lends weight to what is essentially a subjective field."

With that caveat, I will briefly present some current opinions on the meaning and symbolism of the eleven colors that have names in most world cultures: red, white, black, green, yellow, blue, orange, brown, purple, gray, and pink. What follows is not intended to be a complete or scientific presentation of the meanings of colors but an overview of some general thoughts and cultural references. I hope that the information given might provide you with some valuable insights into the meaning of your own personal, expressive vocabulary of color. On a practical note, color self-knowledge will give you greater confidence in choosing colors for everyday life and certainly makes choosing colors more interesting.

For each of the colors discussed in the following section, remember that value and intensity changes modify meaning. Bright colors indicate intense emotions and pale colors just the opposite. Additions of other colors also change meaning. For example, as red moves toward orange or toward purple, or lightens in value toward pink, the meaning changes, taking on modifications related to the intermingled colors. Check below for the meanings of orange, violet, and pink to extrapolate the meaning of mixed colors.

Red

Of all the colors, the greatest agreement occurs on the symbolic meaning of red. Researchers tell us that red is associated with virility, stimulation, danger, and sexual excitement. Red is the color of blood, fire, passion, and aggression, the color that is the most violent and exhilarating. It is the color of war: Roman soldiers carried red battle flags, and many nations have clothed their soldiers in red tunics. In ancient Greece, actors wore red to symbolize the disastrous war in Homer's *Iliad*. Red is associated with the Devil, who is often depicted with bright red skin or wearing red clothes. A red flag represents a warning, and red tape—bureaucratic hindrance.

On the other hand, red is the color of the Christian church's Passion ceremony of the death of Jesus, and Christian priests often wear red chasubles to symbolize the shed blood of martyred saints. To the Russian people of the early twentieth century, the red flag of Soviet Russia signified revolution and freedom from the tyranny of the czars, but, as power-driven Russian leaders corrupted the ideals of the revolution, communism became the "Red Menace" to the Western world. On a softer note, brides in

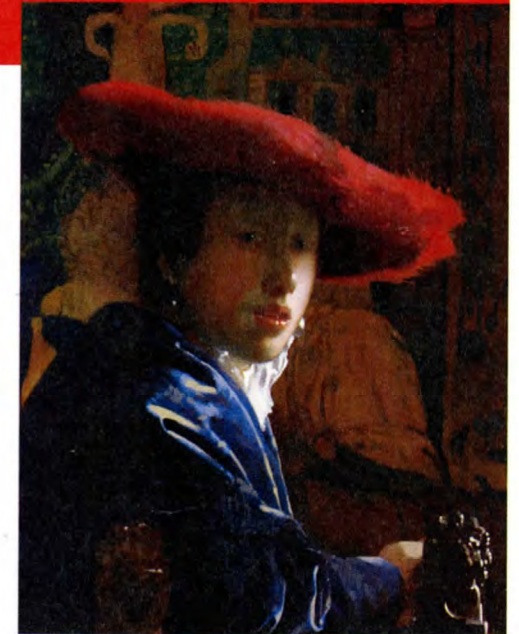


Fig. 12-16. Jan Vermeer (1632–75), *Girl with the Red Hat*, 1665–66, oil on panel, 22.8 × 18 cm (9 × 7 in.). Andrew W. Mellon Collection, Image © 2003 Board of Trustees, National Gallery of Art, Washington, D.C.

Imagine how the effect of this painting would change if the hat were light blue or pale green.

China wear red, and in many cultures red is used as a burial color. In America, red means love, action, dynamism, and power (think of Valentine's Day, red-blooded Americans, and the American flag in which the red stripes have come to symbolize hardiness and valor).

Now, regard your own paintings from the standpoint of the symbolic meanings of the color red—specifically speaking, a very bright, medium value red. Does your use of red convey any of the meanings described above or have you used red in an altogether different way? It is probably safe to say that you were more likely to use red to express “Anger” than to express “Tranquility.”

White

White evokes contradictory interpretations. In Western cultures, for example, white symbolizes innocence and purity (think of a bride's gown or a baby's baptism dress), but in many other cultures—Chinese, Japanese, and many African nations—white represents the color of death. The Chinese wear white clothing to funerals to honor the purity of the departed soul, but a white mask in Chinese drama signifies a frightful person. A curious echo of the latter meaning is our own representation of ghosts as white. The white whale in Herman Melville's *Moby-Dick* is perhaps the most sinister evocation of white in American literature, and a white feather in British folklore signifies cowardice. On the other hand, a white flag of truce signals an honorable intent to surrender peaceably. In the ancient symbolic meaning of colors in dreams, white meant happiness in the home, which brings to mind all of those detergent commercials that shout the importance of white.



Fig. 12-17. John Singer Sargent (1856–1925), *The Fountain, Villa Torlonia, Frascati, Italy, 1907*, oil on canvas, 71.4 × 56.5 cm (28 × 22¼ in.). Collection, Art Institute of Chicago, Friends of American Art Collection, 1914.57.

In this painting, Sargent's use of white conveys a sense of luxury and leisure.

Regard your own paintings in terms of these meanings of white. If you chose a white flower for your floral still life, for example, that choice may carry a connotation of purity since, in the Christian faith, the white lily symbolizes the Madonna. A viewer of your painting probably will not be consciously aware of that connotation, but these deeply embedded color meanings are likely to be there in the viewer's subconscious mind. The negative connotations of white may appear in your “Seasons” or “Emotions” paintings.

Black

When told that the public wanted colored automobiles, Henry Ford, the company's founder, responded,

"They can have any color they want, as long as it's black."

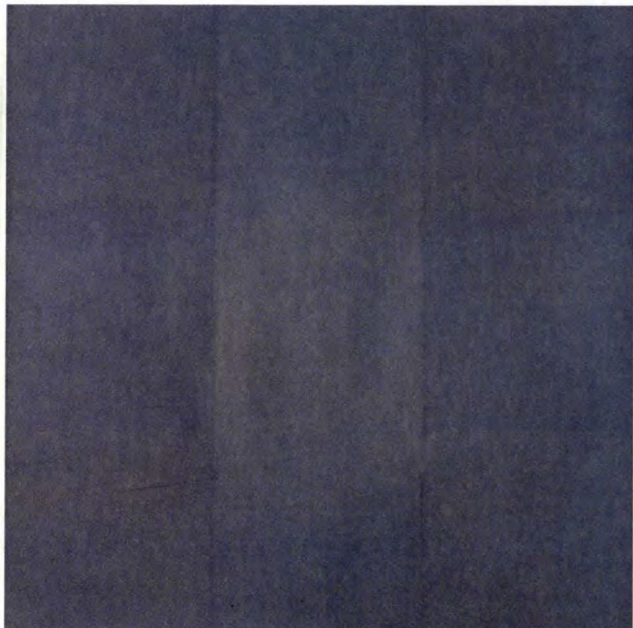


Fig. 12-18. Ad Reinhardt (1913–67), *Painting*, 1954–58, oil on canvas, 198.4 × 198.4 cm (78 1/8 × 78 1/8 in.). © Ad Reinhardt, 1954–58/ARS. Licensed by VISCOPY, Sydney 2002.

"From 1950 until his death in 1967, Reinhardt purged his paintings of color, eventually arriving at his black paintings, the solemn, reductionist canvases for which he is perhaps best known."

Virginia M. Mecklenburg, 1989

In the Western world, black connotes death, mourning, and evil, and a liberal use of black has negative overtones as the color of ill omen, hell, and damnation. In old western films, the black hat and white hat were the symbolic headgear for the "bad guys" and the "good guys." For the ancient Egyptians, however, black (the color of the Nile Delta soil) meant life, growth, and well-being. In our own time, the African-American "Black is beautiful" campaign urges a return to this more positive orientation toward black. Black has always been associated with night (the absence of light), and, for this reason, is also associated with unknowing, mystery, and intrigue. Perhaps that association explains the preference for "basic black" as a sophisticated fashion statement in clothing and the fear of black cats crossing one's path. In the Western world, black became the color of the clergy and, at the same time, the color worn by widows and graduating college students.

Regarding your paintings, do you find a liberal use of black, or is it confined to specific themes of seasons and emotions? Black and white contrasts form the clearest of messages: good versus evil, right versus wrong, future versus past, success versus failure, good luck versus bad luck. On a scale of values, black also represents the lowest possible value, meaning the complete exclusion of light. Scan your paintings for your use of black and note down its frequency or absence.

Green

Color experts generally agree that green is the color of balance and harmony and symbolizes spring and youth, hope and joy. In Christianity, green is the color of new life, and is associated with baptism and the feast of the Eucharist. In the Muslim world, green signifies the Prophet Muhammad and therefore represents the entire religion. As Islam's sacred color, however, green is reserved as a special sign of respect and veneration. In England, the color "Lincoln Green" has a heroic connotation because of its connection with the folk figure Robin Hood. In the Western world, the "Go" sign is green, and "Think green" has become the byword for ecological preservation.

As with most colors, however, green has negative as well as positive connotations. Oddly, in view of its generally positive connotation of health and growth, green can also symbolize illness, as in the green of bile or in someone's being said to "turn green"—which comes from actual loss of the healthy skin color (perhaps due to the loss of its complement, red, from the "blush" of good health). It is also the color of envy and jealousy, especially in its less popular mixtures, such as intense yellow-green and olive green. Recall that in William Shakespeare's play *Othello*, Iago warned his master, "O, beware, my lord, of jealousy! It is the green-eyed monster..." Green also appears in oddities, such as "Little Green Men" from outer space and "The Incredible Hulk." As Jim Henson's creation Kermit the Frog said, "It's not easy being green."

Regard your paintings now in terms of the color green. Does its frequency indicate it is a favorite color, or is it confined to small areas and sparse use? Which of your "Seasons" paintings emphasize green? Does green appear as a major color in any of your "Human Emotions" paintings? Does your use of green carry negative connotations? Make a note of your use of green.



Fig. 12-19. Paul Gauguin (1848–1903), *Green Christ (The Breton Calvary)*, 1889, oil on canvas, 92 × 73 cm (36 × 29 in.). Musees Royaux des Beaux-Arts de Belgique.

For Gauguin, color signified mystery. In 1892, he wrote: "... we use it (color) not to define form, but to give musical sensations which spring from it, from its peculiar nature, from its inner power, its mystery, its enigma..."

John Gage, *Color and Culture*, 1993

Yellow

Yellow is one of the most ambiguous colors. It is the color of sunlight, gold, and happiness, of intellect and enlightenment, but it is also the color of envy, disgrace, deceit, betrayal, and cowardice. In Islam, golden yellow is the color of wisdom, and during the Chinese Ch'ing dynasty (1644–1912), only the emperor was allowed to wear yellow. In the Christian tradition, however, Judas wore a yellow cloak when he betrayed Jesus with a kiss. In his book *The Primary Colors*, Alexander Theroux expounds the enigma of yellow: "So few colors give the viewer such a feeling of ambivalence or leave in one such powerful, viscerally enforced connotations and contradictions. Desire and renunciation. Dreams and decadence. Shining light and shallowness. Gold here. Grief there. An intimate mirroring in its emblematic significance of glory in one instance and, in yet another, painful, disturbing estrangement. An opposing duality seems mysteriously constant."

Reflecting this ambiguity, the Yellow Brick Road of L. Frank Baum's *The Wonderful Wizard of Oz* was paved in bricks of gold, but they symbolized the bitter congressional fight over the gold standard and tight money policies in the early 1900s. The Beatles' 1968 animated film, *Yellow Submarine*, was a lighthearted modern version of the ancient mythology of good versus evil. The yellow submarine symbolized youthful optimism, and the Blue Meanies, who despised both music and love, were the unsuccessful opposing force. Modern law enforcement uses bright yellow tape to mark a crime scene, another good-versus-evil sign. In the ancient symbolism of dreams, pale yellow meant material comfort, but deep yellow signified jealousy and deceit. Gentlemen are said to love blondes, but women with blonde hair were called—by those same gentlemen—"dumb blondes." On the other hand, yellow in nature is often extolled as

"I have always felt it significant, incidentally, that the enchanting autumnal forest in Robert Frost's poem, 'The Road Not Taken,' be autumnal, making the line, 'Two roads diverged in a yellow wood,' a prefigurement of a time when the speaker, though now young, will see how, when he gets older, choosing one road over another crucially matters."

Theroux, *The Primary Colors*, 1994

cheerful and charming, as in Wordsworth's 1804 poem "Daffodils":

*I wander'd lonely as a cloud
That floats on high o'er vales
and hills,
When all at once I saw a
crowd,
A host, of golden daffodils...*

In Jungian psychology, yellow symbolizes the flash of insight called "intuition," which seems to come "from out of the blue" or "from left field," which, incidentally, is the visual field of the right hemisphere of the brain.

Regard your paintings now in terms of your use of yellow. Like many people, you may be fond of yellow and see it only in its positive aspects. If so, yellow will appear among your favorite colors, preferred seasons, positive emotions, and in your still life paintings. On the other hand, shades of yellow may appear in your "disliked colors" and your painting of "Jealousy" or "Sadness."

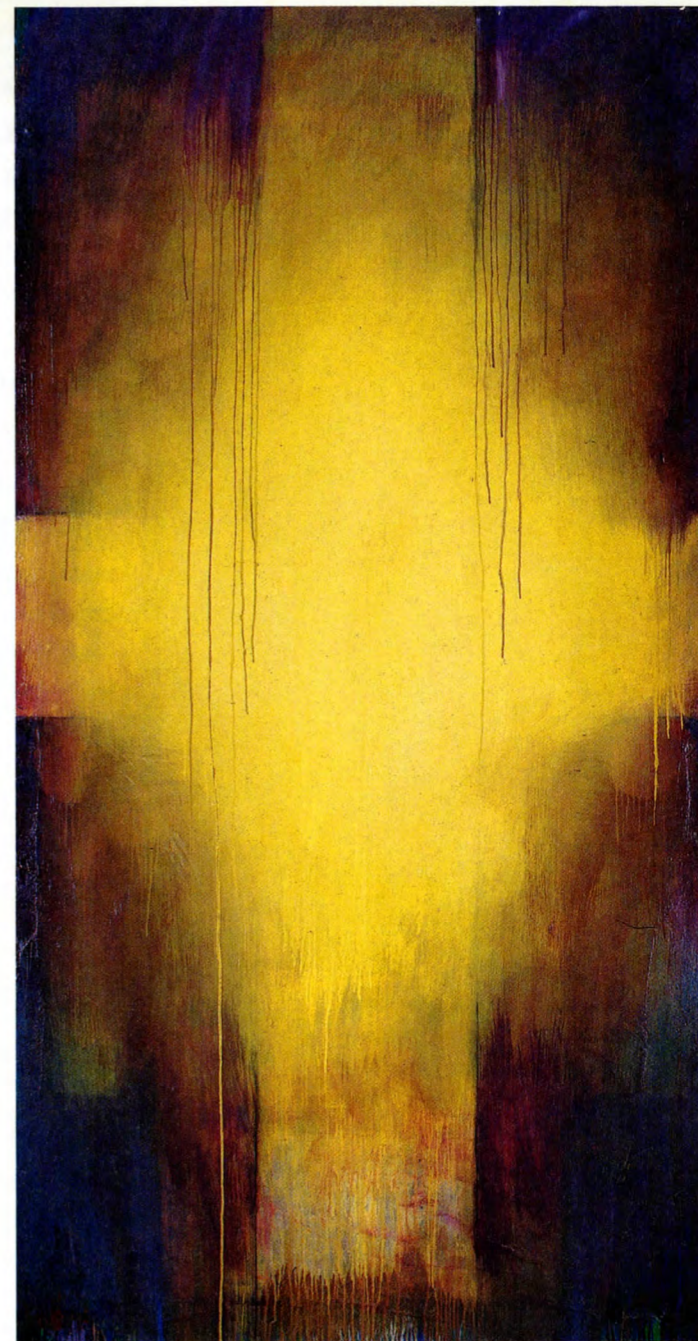


Fig. 12-20. Brian Bomeisler, *Yellow Cross*, 1992, oil on canvas, 213¼ × 111¼ cm (84 × 44 in.). Collection of the artist.

Blue



Fig. 12-21. Pablo Picasso (1881–1973), *The Old Guitarist*, 1903–1904, oil on panel, 122.9 × 82.6 cm (48¼ × 35½ in.). Helen Birch Bartlett Memorial Collection, The Art Institute of Chicago.

In world languages, words for the color blue came long after words for black, white, red, green, and yellow. This is surprising in view of the fact that both sky and water are blue and that this blueness is visible nearly everywhere. In all of Homer's epics, with countless references to sky and water (as in "the wine-dark sea") there is no mention of the color blue. Similarly, with hundreds of references to the sky and heaven in the Bible, the word *blue* never appears. Perhaps this was because the early writers felt the color blue to be ethereal and insubstantial—essentially unreal, unlike the colors red, white, black, green, and yellow, which were viewed differently. Blue evokes the void or vast distances, as in something disappearing "into the wild blue yonder." "Blue is the color of the millennium [the twenty-first century]," according to a recent announcement by a color-prediction firm, the Color Portfolio. "It is serene and pure, like the ocean..."

In its darker versions, blue represents authority (the prototypical elected official's dark blue suit), and, in the symbolic meaning of colors in dreams, blue means success. Both the Ford Motor Company, founded by Henry Ford, the quintessential authoritarian manager, and IBM adopted blue as an identifying color. IBM came to be known as "Big Blue," linking it with the success aspect of the color. In its paler versions, blue means happiness. In Christianity, the Madonna is usually clothed in blue, symbolizing fidelity, as reflected in our modern phrase "true blue."

Yet, like other colors, blue is ambiguous and mysterious. Blue connotes reverie, sadness, and melancholy.

Picasso, in his "blue period" paintings, depicted the lowlife of Paris with its sadness and poverty (Figure 12-21). When Picasso's mood improved (along with his living conditions), he initiated his "rose period." And how many hundreds of sad songs have the words *blue* or *blues* in the titles? Enigmatically, blue signifies both immorality, as in "blue movies," and Christian morality, as in "blue laws," meaning laws to curb immoral behavior, and "bluenose," meaning an excessively puritanical person.

Regard your paintings now from the standpoint of your use of blue and the meanings described above. If, for example, blue appears in your painting of "Anger," it may mean that anger, for you, is related to authority and power. If it appears in your depiction of "Love," for you it could mean that love is boundless and vast, or, conversely, it could mean that love carries an element of sadness or "the blues." Scan your paintings for your use of blue and note any repetitions of blue in your depictions of the seasons, emotions, and the colors you like or dislike.

Orange

Orange is singular among the primary and secondary colors in that it seems to carry little symbolic meaning, though it is often used as an identifying color for sports teams, as in the uniforms of the Baltimore "Orioles," and, illogically, the new uniforms of the Cleveland "Browns" (although the helmets remain brown). Curiously, there is little mood or feeling connected with the color orange—that is, there are no phrases in our language about *feeling orange* or *being orange*, as there are phrases about feeling blue, being in a black mood, being yellow (cowardly), or thinking green.

Orange is related to heat and fire, but without the intense feelings ascribed to red and, as red becomes more red-orange in mixture, it loses its meaning of danger. The

Why make so much
of fragmentary blue

In here or there a bird,
or butterfly,

Or flower, or wearing-stone,
or open eye,

When heaven presents in sheets
the solid hue?

Robert Frost, "Fragmentary Blue,"
1920

"Blue is a color that moves easily from reality to dream, from the present to the past, from the color of the daytime into the blue amorphous tones of deepest night and distance... In his *Farbenlehre*, Goethe called blue 'the color of enchanting nothingness.'"

Theroux, *The Primary Colors*

The Color Marketing Group, an international association for color professionals, produces each year a "Forecast Palette" of fifteen to twenty colors with Crayola-like imaginative names. The 2003 predictions included these versions of orange:

"*Squash*: Representing the natural evolution of orange, this warm and comfortable, non-gender specific color bridges the age gap from youth to maturity."

"*Tangy*: A natural yet clear orange. Adventurous, daring color that rockets into space."

Fig. 12-22. Mark Rothko (1903–70), *Orange and Yellow*, 1956, oil on canvas, 231.1 × 180.3 cm (91 × 71 in.). Collection Albright-Knox Art Gallery, Gift of Seymour H. Knox, Jr., 1962.



Protestant Orangemen of Northern Ireland are passionate about the color, and Buddhist monks are highly visible in their saffron orange robes. Every decade or so, orange emerges as a fashionable color in clothing and furniture, as it did in the 1960s and the 1980s, and, according to the color prediction industry, it is back in favor again. Orange is connected to the fall season and to Halloween, and seems to carry some connotation of frivolity, lack of seriousness, or mischief, but on the positive side, perhaps, energy without aggression.

In light of the indefiniteness of orange, it will be interesting to scan your paintings for your personal use of orange, since it seems to have few distinct symbolic meanings. You may find that you used orange in conjunction with brown, which is actually a dulled orange, and which does have symbolic meaning, especially for the fall season.

Brown

The fact that brown is the color of the earth's soil probably explains why it is one of the few colors named in early languages (along with black, white, and pink) that is not a pure primary or secondary color. Brown is a low-intensity color made by mixing blue or black with orange. It is not surprising that brown is often regarded as a dreary color. It frequently symbolizes misery or gloominess, as in the phrases "in a brown study," meaning in deep thought, or "in a brownout," meaning loss of focus or ability to concentrate. The color of uniforms is often brown, as in Nazi Germany's Brownshirts, a particularly unsavory group. On a more



Fig. 12-23. Vincent van Gogh, *The Potato Eaters*, 1885, oil on canvas, 82 × 115 cm (32 × 45 in.). Vincent van Gogh Foundation, Rijksmuseum Vincent van Gogh, Amsterdam, the Netherlands.

In a letter to his brother, Van Gogh stated his aims for this painting: "... to emphasize that those people, eating potatoes in the lamplight have dug the earth with those very hands they put in the dish, and so it speaks of manual labor and how they have honestly earned their food."

The Complete Letters of Van Gogh

positive note, the Brownies in folk literature were small brown elves who helped with housework, and the sobriquet “Big Brown” now humorously identifies the United Parcel Service delivery vans. These links may provide insight into your personal use of brown.

In your paintings, it is likely that you used brown in some of the “Seasons” paintings, but it will be interesting to note whether you also used brown in any of the “Emotions” paintings or among the colors you like or dislike.

Purple and Violet

Purple is a dark color, the closest in value to black, and some of its symbolic meaning stems from the fact that it reflects so little light. Purple’s complement, yellow, is the palest of the color wheel hues and the color that reflects the most light. Thus, the two together form something like sunlight and shadow (or perhaps, in emotional terms, joy and sadness).

Purple is a color associated with deep feeling, as in “purple passion” or “purple with rage.” It is a color associated with mourning for the death of loved ones. In early cultures, purple dye was extremely difficult and expensive to produce. Therefore, “royal purple” quickly came to symbolize the ruling class, dignity, and power, and purple clothing was forbidden to those of lower rank. A “purple patch” in painting and in writing is a section that is overwrought and even lurid, but fondly clung to by the painter or writer. Purple connotes bravery, perhaps an extension of its connection with royalty, as with the “Purple Heart”—a heart-shaped purple-and-gold military medal on a purple ribbon signifying injury in battle. It is not difficult to imagine how the symbolism would change if the medal were, say, yellow instead of purple. Would any military person want a “Yellow Heart”?



Fig. 12-24. Pieter Bruegel the Elder (1529–69), *Parable of the Blind Men*, 1568, oil on canvas, 78.7 × 154.9 cm (36 × 61 in.). Galleria Nazionale, Naples.

Violet, in color theory, is interchangeable with purple. Both are made from red mixed with blue. In common usage, however, the term “violet” calls to mind a somewhat paler, softer hue, without purple’s connection with authority and power. Violet has a slightly different connotation, one of sadness, fragility, and vulnerability. A “shrinking violet” is a shy, withdrawn person, and the phrase “the violet hour” refers to dusk, rest, and reverie.

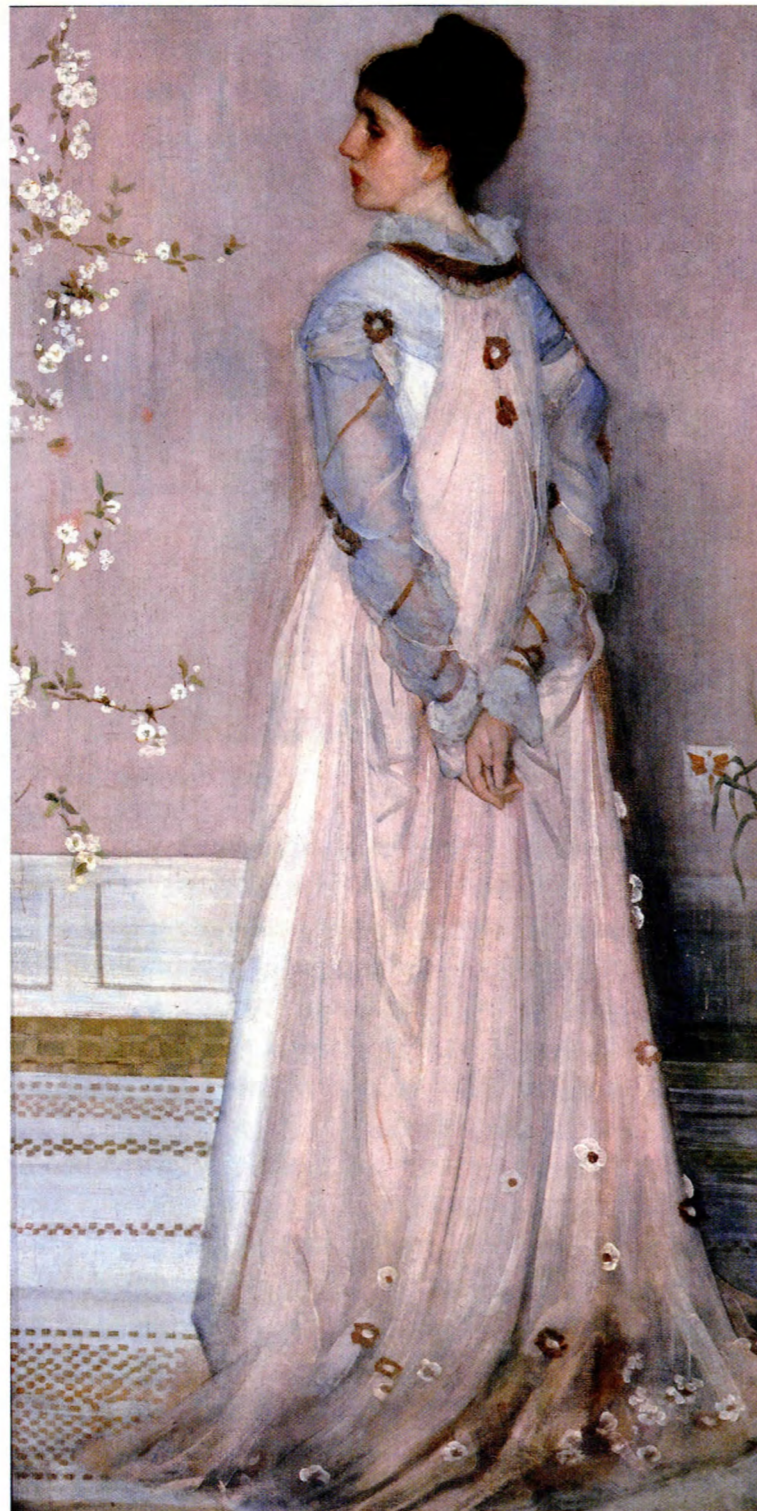
Scan your paintings now and make a note of your use of purple and violet. It will be interesting to note whether you used the complements yellow and purple together in any painting, and if you have differentiated symbolically between deep purple and lighter violet.

“This sorry train, in its shadowless incorporeality, has a ghostly, unreal effect.”

Itten, *The Art of Color*

Here violet represents false piety and blue-gray represents superstition.

Fig. 12-25. James Abbott McNeill Whistler (1834–1903), *Symphony in Flesh and Pink: Portrait of Mrs. Frances Leyland*, 1871–73, oil on canvas, 195.9 × 102.2 cm (77⁷/₈ × 40¹/₄ in.). © The Frick Collection, New York.



Pink

Pink, although it is made from red mixed with white, has none of red's violent connotations. Pink is quite benign and generally symbolizes light moods. It is associated with girl babies, femininity, and cotton candy, although, in its "hot pink" version, it becomes more aggressive and sensual. During the 1950s, the word *pinko* was a derogatory term for left-leaning political views, and politicians, even today, avoid wearing pink ties. Illogically, however, politicians often wear red ties, a color even more highly charged relative to communism.

Scan your paintings and make a note of your use of pink. It could show up anywhere—in your depiction of "Love," obviously, but also in "Spring," "Tranquility," "Joy," or "Anger," where pink might temper the aggression of red, indicating a milder form of anger.

Gray

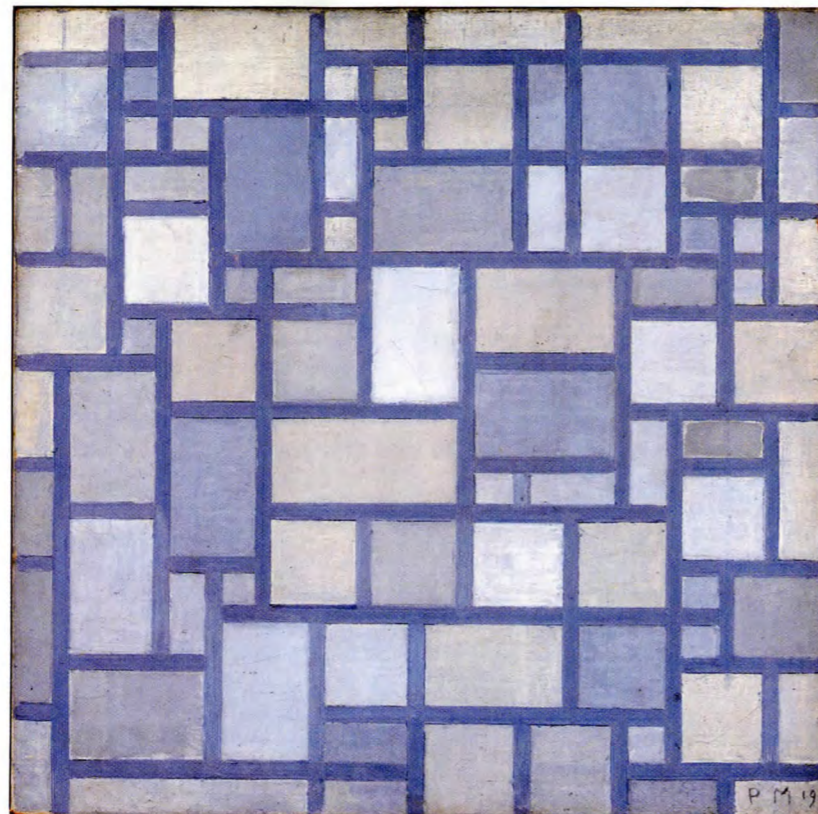
Gray is the color of gloom and depression. A Billie Holiday recording of the song "Body and Soul" has the lines, "What lies before me? A future that's stormy, a winter that's gray and cold." Gray is also the color of indecision and uncertainty—of "gray areas" that defy direct action. It is the color of ash and lead, and it is associated with aging, as in "the graying of America." It carries the connotation of lack of strong feeling and an abdication of self: the classic movie *The Man in the Gray Flannel Suit* portrayed the frustrating lack of autonomy in American corporate life. In nature, however, gray is a common color that provides camouflage, as in gray wolves, gray whales, and gray elephants, which may explain the otherwise puzzling popularity of noncommittal gray clothing in the business world.

Piet Mondrian (1872–1944),
*Composition: Light Colour
Planes with Grey Contours*, 1919,
oil on canvas, 49 × 49 cm (19¼ ×
19¼ in.). Basel, Kunstmuseum,
Offentlich Kunstsammlung.
© 2004 Mondrian/Holtzman
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(ARS), New York.

The gray lines both bind and separate the planes of pale color, with an overall effect of indefiniteness.

The painting may reflect the ennui of post-World War I Europe. At the time of this painting, Mondrian wrote: "I use those mute colours for the time being, adjusting to present day surroundings and the world; this does not mean I would not prefer a pure colour."

In Mondrian's later paintings, the grid lines became black and the colors became full intensity reds, blues, and yellows.



Scan your paintings for your use of gray. It is more likely to appear in your rendition of "Sadness" and "Winter" than in your paintings of "Joy" and "Spring," but be prepared for some surprises. Gray may show up in your painting of "Love," suggesting indecision, or in "Jealousy," signifying withdrawal from conflict.

Practicing Your Understanding of the Meaning of Colors

Your set of paintings and the summarizing notes you have made of them represent the gains you have made in learning the basic structure of color, and the insight you have achieved in understanding your personal color vocabulary. This knowledge can be useful in everyday life, since all of us continually face color choice decisions, whether in clothing, house paint, furniture, accessories, gifts, or gardening.

In most of these areas, the goal is generally to select harmonious colors, not discordant colors—unless, of course, your personal preference is for discordant colors, sometimes called "clashing colors." They can be startlingly beautiful—for example, high-intensity purple, red-orange, yellow-green, and blue, all in one room—and our modern tastes have become much more accepting of discordant colors. Most of us, however, will not want our brains jarred to that extent on a daily basis, and we will opt for color harmony in our surroundings.

The solution to color-choosing problems lies in knowing your color preferences and the subjective meaning of colors, added to your knowledge of how to harmonize a set of colors by providing what the brain seems to long for: complementary colors, varied by transforming the original colors and their complements to varied values and intensities.

The harmonizing process, as you have seen, is quite simple and straightforward. You can start with one color that you like (a color that will convey the meaning you intend) and take the first step by adding its direct complement at the same value and intensity level. The next step is to transform both of the complementary colors to their opposite value and intensity levels. In this way, you will end with a set of harmonized colors that is satisfying to the eye and brain.

Of course, this is only one method of creating beautiful color harmonies. Analogous colors (hues that lie next to each other on the color wheel) are inherently harmonious, as are monochromatic schemes that are value and intensity variations of one color. Conversely, you can avoid using colors altogether and work out an *achromatic* design in shades of gray, black, and white. Most of us, however, love complementary colors, and, as you have seen, the human brain seems also to seek that combination, especially when the hues are harmonized by the method you have learned.

**A course in
mastering the art
of mixing colors**

Color

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