hue and YOU


Learn how to effectively paint your garden in plants, the first of our two-part series on using color in the garden, by internationally recognized author and designer Tracy DiSabato-Aust.


PHOTOS BY (CLOCKWISE FROM UPPER LEFT) KATRINA JÄRVINEN, THOMAS M. PERKINS, ROSSCO, RADU RAZVAN, TOMO JESENICNIK, CHRISTOPHER S. HOWETH, ANNETT LINNEA RASMUSSEN, ZIMMYTWS

It's an understatement to say we gardeners are fond of color; we're often obsessed with it. Many times it's the feature that sells us on a plant. Although a colorful garden is eye-catching, it should be created with consideration to all design elements.

Understanding a little color theory and some basic color principles can help us create harmonious and unified mixed gardens. Let's start with the three dimensions of color: hue, value and intensity.

## Heavenly Hues

Hue is pure color, containing no white, black or gray. The primary hues are red, yellow and blue. The secondary hues, each a combination of two primaries, are orange, green and violet (also called purple). Mixing a primary and secondary hue creates a tertiary hue: red-violet, redorange, yellow-orange, yellow-green, bluegreen and blue-violet. The three primary, three secondary and six tertiary hues make up the 12-part color wheel (see illustration
below).
Analogous colors-orange and yellow, for example-are adjacent, or nearly so, on the color wheel. Colors opposite each other on the wheel, such as green and red, are complementary or contrasting colors.

Pure spectral hues are uncommon in nature because they don't occur on the flat, uniform surfaces we need to perceive them as such. Thus, garden combinations that contain only colors closest to pure hues don't work well because they're too contrasty. For example, a bright-red flower next to a blue spruce is glaring to the eye because both plants contain pure hues. The combination will work much better if one or both hues are lightened or darkened, so a pink flower would be better beside a blue spruce (see photographs at right) because its color value is less pure and contrasts more favorably with the spruce's blue hue.

Every color has both a warm and cool range. We usually perceive warmer colors as being near and cooler colors as receding.

Hues that are close to being pure, such as this blue and red (top photo), can create unappealing contrast when juxtaposed in the garden. A more pleasing combination would be pink and blue (middle photo), because the pink is a lighter value of red and the contrast with the blue is not as great. In the larger garden context, the spruce's blue color works well with greens, pinks and whites (bottom photo).


This 12-part color wheel differentiates colors into shades (inner ring), pure hues (middle ring) and tints (outer ring). Colors opposite each other, such as green and red, are complementary. Colors next to each other, or nearly so, are analogous.


Above: This illustration demonstrates how the hue, value and intensity of a single balloon flower (Platycodon grandiflorus) are affected by the color of light, the type of light and the interaction between surrounding colors.

Because of this, blue flowers usually seem distant, while warmer orange or red flowers seem closer. By applying this principle in the garden, we can make a combination, border, or even an art element appear closer (hence more prominent) or more distant and less prominent by our color selections.

## Sound Values

Value, color's second dimension, refers to a color's luminosity, or the amount of light reflected back from it. Lighter colors, or tints, of a color contain more white and have a higher value. Darker colors, or shades, contain more black and have a lower value. For example, pink is a high-value tint of red and maroon is a low-value shade of red.

Every hue has differing values as well. Yellow, the lightest color in the spectral wheel, has the highest value of any pure hue, while the darkest color, violet, has the lowest value (see illustration below). Many different values-or areas of light and dark-are apparent in a single leaf, plant or flower combination, depending not only on the actual color value, but also on how light reflects off various parts of the plant. Light increases a color's apparent value; shade decreases it. The contrast between light and shadow in the garden creates depth and interest.

As you move from a sunny to a shady area, your eye perceives a value shift that it must adjust to. Too much value contrast can create an unsettling space, while too little can be boring to the eye. Likewise, color values can appear more or less prominent, depending on their color



> Early morning light
> (above) enhances this garden's depth and threedimensional nature, while backlighting (left) makes translucent plants glow. Take advantage of lighting conditions in your garden through strategic planting.
interaction with surrounding plants (see "top illustration on opposite page.)

All garden elements are affected by value, including hardscaping materials. So making the color value of your maintenance path similar to the plantings around it will make the path appear less conspicuous.

Tints of colors-peach, pink and laven-


These two spring-flowering plants charmingly complement each other. The full form of the daffodils adds weight to the composition and contrasts nicely with the phlox's open form, as do their complementary colors. The daffodils' bright white appears more brilliant in this partially shaded location because of its higher color value.
der-imply lightness or fragility; shades of colors-dark blue and maroon-imply weight or solidity. Thus, we can make a smaller garden seem larger by planting tints (and cooler colors and finer textures) in the background of a border or at the far end of the garden or path. Conversely, planting shades (and warmer colors, stronger contrasts and bold forms) in the background can make a larger garden appear smaller and more intimate.

A simple rule is to keep lights light and darks dark. It's more pleasing to combine tints of lighter colors with shades of darker colors than shades of lighter colors with tints of darker colors. The "color police" have forever told us that pink and orange shouldn't be used together, and now we know why.

To balance colors in the garden, you generally need more of a darker color than a lighter color if both are at full intensity. For proper proportion, use about twothirds blue flowers (darker hue), for example, and one-third orange flowers (lighter hue), if both are fairly pure in color.

## Intense Information

Color's third dimension, intensity, refers to the tone (or relative brightness or grayness) of a color. Tone is what distin-

The combination of a dark orange with a light blue (above) doesn't work because the natural order of the colors is wrong. This blue and orange combination (below) is more effective, because the blue is dark and the orange is light, almost peach, which is more in line with the natural value order of the colors.

guishes the colorful from the dull. I like to think of intensity, or color saturation, in this way: picture a sponge or rag soaking up as much paint as it can-it will be fully saturated. A pure hue, without the addition of another color, has the highest saturation. Yellow and red grab our attention because they are more highly saturated than purple, blue or green.

The addition of white makes a pure hue a tint, the addition of black makes a pure hue a shade, and the addition of gray makes a pure hue a tone. If we plant less saturated (grayed) hues in the background, with saturated hues nearby, the gray-hued plants will recede into


The cooler colors of this classic, romantic early-summer combination are relaxing and appealing. Different flower shapes add interest, and the peony flowers' weight and mass help to anchor this lighter mix of textures.

the distance, creating a feeling of depth. Conversely, placing saturated colors in the background reduces depth. Low-saturated colors are apparent in bricks, stones, mulch and gray-foliaged plants, which are good backgrounds for our plantings.

For good proportion and color balance, combine two-thirds lower-toned colors with one-third intense colors.

## Colorful Factors

Light, associations among colors, textures and forms, time of day, and the distance from which it is viewed all affect the way color appears in the garden.

In average daylight, red, yellow and orange are most apparent, followed by green, blue and purple. In dusk's blueviolet light, red darkens while the color of blue flowers may appear heightened. In sunny situations, vividly colored flowers and foliage shine, while pastel colors appear washed out.

It's worth noting that many pastel-colored flowers are naturally more adapted to shady sites (which suit their true color), while most richer-colored flowers require sunny sites for best growth. Because of their higher value, whites, pastels and yellows are more brilliant in shade than are deeper colors.

In early morning, late afternoon and weak winter light, contrast is reduced, enhancing the garden's depth and three-
dimensional nature. Backlighting causes translucent objects to glow, while front lighting makes them appear flat and two-dimensional. As gardeners, we can capitalize on different lighting by strategically placing certain plants to take best advantage of these conditions.

Color interactions are another important consideration when designing the garden. For example, in a yellow border, including small areas of violet flowers (which is opposite yellow on the color wheel), creates dramatic relief and bright focal areas that are more stunning than a sea of yellow alone. In the same way, green foliage in a red garden (also opposites on the wheel) is a ready-made brightening contrast. Surrounding a color with neutrals, such as grays or browns, or with less saturated colors, is another way to dramatize a color. For example, splashes of gray foliage will enliven a purple garden.

Surrounding a color with analogous colorsthose adjacent to it on the color wheel-will decrease the color's brightness, as will surrounding it with more highly saturated colors. Placing flowers against a darker background will lighten the flower's color value, while placing them against a lighter background will darken the color value.

Texture and form also affect color. Vivid colors in soft, airy textures have less impact than the same colors in bolder, heavier textures (see above-left photo). Bold flower or leaf forms have more surface area, and therefore carry more color impact, than delicate shapes of the same color. Fine-textured flowers and leaves will make colors appear mixed at a distance more so than coarse-textured ones. Bolder leaves will show more distinct colors at a distance, which can be important in certain mixed border situations.

Balancing color in a garden takes time and practice, and spring is the perfect time to put these principles to work in your garden. So dig in, and have fun with the process.

Tracy DiSabato-Aust is an award-winning garden designer and owner of Horticultural Classics and Consultations, a garden design, installation and maintenance company. She is an intettrnationally recognized horticulture author whose books include The Well-Tended Perennial Garden and The WellDesigned Mixed Garden (Timber Press), from which this piece was adapted. Look for her article on creating color schemes for the garden in the next issue.

