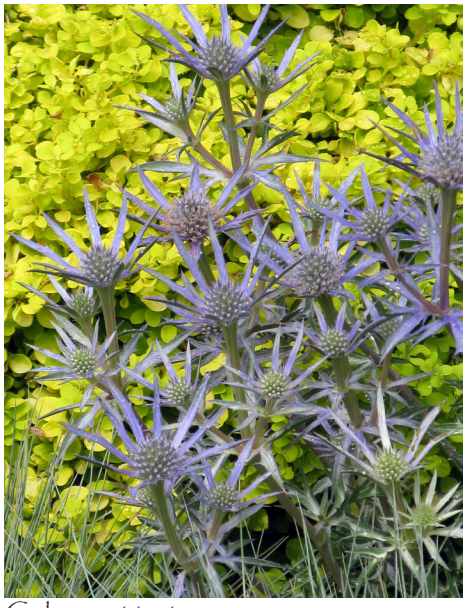
Color
A Study for the Fall Garden

by Eva Monheim

Working with color has always been a passion of mine. Mixing colors fascinated me from the time I painted my first oil painting at the age of twelve. I remember that finding the right colors was everything, because it was an expression of my perception of the world around me. I carry that same thought in my work today, when I teach woody plants and create garden designs.

I think of colors like friends that mix and mingle and form new visuals and interactions. This is especially true in the fall of the year when plants begin to "show their true colors" as the leaves begin to change. The vibrancy of the fall colors set the scene from eye-popping color combinations to soothing and restful visuals, the latter a foreshadowing of the coming winter months ahead.



Color positioning

Color is strongly influenced by texture, which can make a color look far away, or it can make it look very close. In the yellow and blue study (photo, lower left), yellow should seem closer to the viewer because of its vibrancy, but the blue-gray moves forward because of the bold texture of the Bourgati's eryngo 'Picos Amethyst' *(Eryngium bourgatii* 'Picos Amethyst'*).* Small-leaved Bonanza Gold Japanese barberry *(Berberis thunbergii* 'Bogozam' Bonanza Gold®) creates a flatter and finer texture which pushes the yellow back into the distance creating the reversal of color positioning.

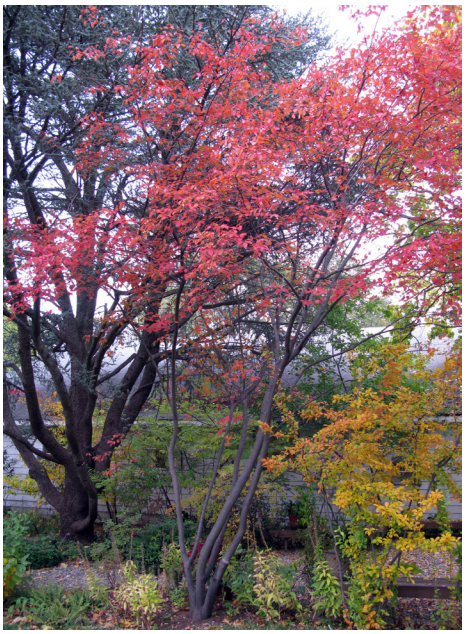
In the photo of the Bourton House Garden border below, yellows, yellow-greens, reds, burgundies, greens, and blue-greens can be found. The complex color scheme includes primary, secondary, and tertiary colors. The texture of the two masses of yellow, yellow-green allows the coarse textures of the reds and burgundies to take center stage—middle ground. Texture opens up the central area through the use of line and bold shapes and forms. This area is made up of Red Star dracaena palm *(Cordyline* 'Red Star'), just behind lady's mantle *(Alchemilla mollis)* and in front of Moonfire dahlia *(Dahlia* 'Moonfire').

Bourton House Garden, Bourton-on-the-Hill, Moreton-in-Marsh, England

Lucifer montbretia *(Crocosmia* 'Lucifer') takes the highest point of the middle ground, drawing the viewer in at this level of the view—which is the focal point. In the design, another grouping of montbretia is placed further along the border pulling the eye up along the walkway. The blue-green shrubs in the background enhances the depth of the border with its fading, ethereal affect.

The red berries of tea viburnum *(Viburnum setigerum),* above photo, along with the purple berries and green leaves of the purple beautyberry *(Callicarpa dichotoma),* show primary and two secondary colors which creates this vibrant color scheme. The

red/burgundy fall leaf color of the tea viburnum adds further depth and intricacy to the combination.



Ambler Arboretum of Temple University

The blue Atlas cedar *(Cedrus atlantica* Glauca Group), serviceberry *(Amelanchier* sp.), and Oriental photinia *(Photinia villosa)* comprise the above photo. The latter two plants have similar leaf size while blue Atlas cedar has fine needles. The combination of fine foliage and blue-green color pushes the tree to the background and strengthens the red-orange serviceberry leaves. Red-orange and blue-green color are opposites, and the combination draws the eye to this area. The yellow Oriental photinia plays a supporting role. Notice the green foliage from the middle ground downward; it anchors the color scheme.

In one of my former gardens, I planted red chokeberry *(Aronia arbutifolia* 'Brilliantissima') with variegated greater periwinkle *(Vinca major* 'Variegata'), (photo, right bottom). The complementary colors of red and green create a visual tension, producing a wonderful focal area under a white pine *(Pinus strobus),* which was otherwise drab.

I love bright colors on my patio. The analogous colors in this design (photo, right top) may not be evident at first because the purple in the purple

Analogous color scheme

sage *(Salvia officinalis* 'Purpurea') is subtle. The blue Victorian ashtray with red-leaved sedum *(Sedum* sp.) ties together the red in the red coleus *(Plectranthus scutellarioides* 'Red Head'). Bits of red-purple in the New Guinea impatiens *(Impatiens hawkeri)* complete the red, purple, and blue analogous color scheme.

Shown above is an extremely effective, two-plant combination—pink Knock Out rose *(Rosa* 'Radcon' Pink Knock Out®) with Tiger Eyes sumac *(Rhus typhina* 'Bailtiger' Tiger Eyes®).

Note that the rachis on the sumac is a pink color echoing the pink from the rose. The deep green rose foliage pushes the sumac forward, while still commanding the middle-ground in the left portion of the photo. When the sumac turns orange to red in fall, the pink will fall further back in the design, adding a new look to the planting scheme.

Above is a yellow, red, and purple theme with crocus *(Crocus sativus).* Imagine these bulbs planted near fragrant sumac Gro-Low *(Rhus aromatica* 'Gro-Low'). The red to red-orange fall foliage of the sumac would make the crocus pop in the landscape. Or, consider a red chair in the design with crocus shooting up at the base of its legs.

Japanese red maple *(Acer palmatum* 'Atropurpureum') and its popularity continue to increase, especially as a small tree in city gardens. Planting it in areas where large trees do not have ample space is the idea. The maple comes in ranges of colors, shapes, and sizes. The new growth in the spring can be just as spectacular as its fall extravaganza. In the photo, the red fall color is backlit to provide a stained-glass window effect.

The blue in the background from the sky intensifies the red, making the display that much more dramatic.

Have fun as you continue to design your gardens. Be imaginative and playful—especially when working with the watercolors (see sidebar below). You will find that you will view color with a keener eye and a greater appreciation for those not-so-common color combinations. Keep records or photograph color groupings that really appeal to you and that will provide another layer to your color palette in your designs. You will find that your plant selections will become more diverse. Start planning now for your fall additions to the garden.

Eva Monheim *is an assistant professor of instruction at Temple University in the Department of Landscape Architecture and Horticulture. She also teaches at Longwood Gardens in the Professional Gardener Program and in the Continuing Education department. Eva lived in England and studied garden design at the University of Reading on a Rotary Ambassadorial Scholarship. She has presented over 1,000 lectures in the U.S. and abroad and holds degrees in horticulture, art, and English. She is a master floral designer and certified arborist. Color continues to inspire her each day, especially in the garden where the landscape is her canvas.*

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Using a Color Wheel for Design

Color wheels are always helpful when making plant selections and planting schemes. This color wheel provides primary colors of red, blue, and yellow; secondary colors of orange, purple, and green; and tertiary colors of blue-green, blue-purple, red-purple, red-orange, yellow-orange, and yellow-green. Tertiary colors are usually hyphenated to express the mix of colors that make them. It's also important when writing a color name that you write it in occurrence of color—when there is more blue pigment than purple, you say blue-purple.

It is assumed that primary colors, when mixed, will make the secondary colors, which lie equidistant from each primary color. You will also see, when looking at the color wheel, that primary colors form a triangle, while secondary colors do the same. When we get to tertiary colors they form rectangles or tetrads. Red-purple, blue-purple, yellow-orange, and yellow-green is considered to be a tetrad.

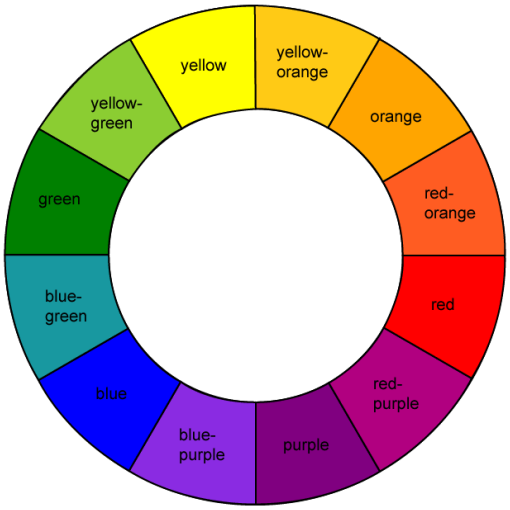
When combining colors, look across the wheel from the color that you want to use. Suppose you want to use yellow in the garden. You can create a split complement using the colors directly next to the complementary (opposite) color of yellow (which is purple), yielding blue-purple and red-purple. Yellow, blue-purple, and red-purple is also classified as a primary and tertiary color scheme.

Primary Colors

Secondary Colors

Tetrad

Split Complement



There is yet another scheme called a square. You can determine squares by drawing a cross on the color wheel. Yellow, purple, red-orange, and blue-green make a square. Possible plants that could make this color combination are yellow daffodils *(Narcissus* sp.), Purple Gem rhododendron *(Rhododendron* 'Purple Gem'), red-orange tulips *(Tulipa* sp.), and Blue Star singleseed juniper *(Juniperus squamata* 'Blue Star').

Square

Adding white to lighten any of one of the colors on the wheel will result in a tint, and by adding black will result in a shade. Understanding the basic theory will enhance your plant palette and help convey the mood that you are trying to create.

Monochromatic color schemes are a series of one color ranging from a light tint to dark shade. See the red study above.

Reds and yellows are in the infrared wavelength (warm colors) and blues and purples are in the ultraviolet spectrum (cool colors), green is considered to be the neutral between the two color wavelengths and actually sits equidistant between the two. It is the status quo until other colors of either of the spectrums are mixed into green, varying the green's function. A good example is Tiger Eyes sumac *(Rhus typhina* 'Bailtiger' Tiger Eyes®).

Analogous colors appear next to each other on the color wheel. The example above is blue-purple-red.

The yellow-green to yellow leaf color of this plant are no longer considered neutral but are now on the warm color spectrum of the infrared band. In the fall, the leaves turn orange to red, maintaining the warmth of the infrared spectrum.

The color magenta (red-purple) seems to be one color that people love or hate—perhaps because this color is a transition color between the ultraviolet and the infrared spectrums. An example of magenta in the garden is rose campion *(Lychnis coronaria)*.

Building on these concepts, we can develop complex color schemes for the garden that will inspire and excite the viewer. Experiment with color by using a small box of watercolors. Let the colors bleed into one another to help blur the lines between imaginary plant boundaries. When viewing the garden, color blurring or blending occurs when allowing plants to grow close together and viewing from a distance. New colors are created to increase the visual diversity (see the random color design, near right).

Outline the color patterns that appeal to you and number or letter them. On my example, I have broken these colors down further so you can see the colors in charts, see the colors charts that are lettered A-H (diagram, far right).

Once you make your selections, you can use these examples when purchasing plants for your garden. Remember to consider the colors of the plants throughout the entire growing season, so you can tap into the changes in color—especially for the fall display.

The lettered color schemes are from my original excise of painting. You can see that some use primary, secondary, and tertiary colors (B, C, E, G, H), while others use primary and tertiary colors (A, F) or primary and secondary in D.