

COLOR WHEEL 101

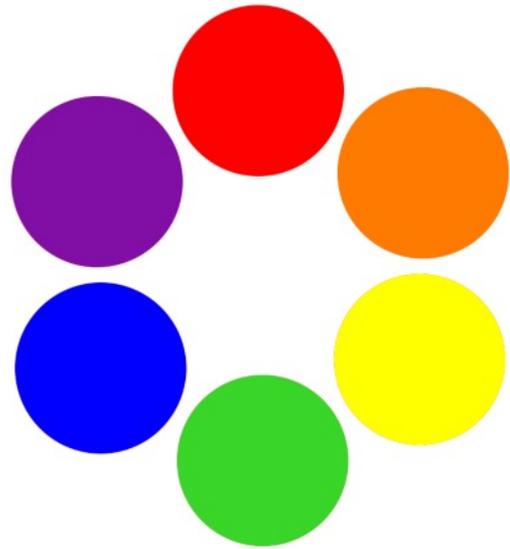
Roy G. Biv, you ask? He's the anagram for the color wheel:
Red, Orange, Yellow, Green, Blue, Indigo, and Violet!



INTRODUCTION

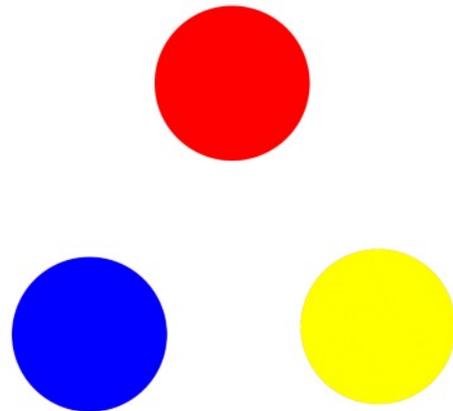
Throughout the tutorials on this site we do refer to colors, color terminology, and the color wheel, so it seems worthy to take a few moments and define these terms. We will be working with paint colors for this quick look at the color wheel.

Working with colors can seem confusing especially when those colors fall into the different categories of light, color, and paint. Each color wheel, those for light, color, and paint, has specific properties. Here we will be working with paint colors, so our color wheel is an RYB wheel not the CMYK wheel for printing and computers or the CMYK wheel of light.



SOME BASICS TO PAINT COLORS

1. There are only three colors, called Primary Colors: red, yellow, and blue.
2. White is the absence of all color- think of an unpainted white canvas
3. Black is the presence of all colors -paint a canvas with every color in your box and it will end up black. Remember, think paint not light.
4. Pure colors, those that have no added white, black, or brown are called hues.
5. Hues can be primary, secondary, and tertiary. It is not how many pure colors are mixed but that all the colors contain no white, black, or brown.
6. Colors that have the addition of white, black, or brown are called tones. Both pink (red + white) and burgundy (red + black) are tones of the hue Red.
7. Since there is no color Black, black paint is made by darkening either blue or green.



PRIMARY COLORS

There are only three colors: red, yellow, and blue. These are called primary colors. That's it, just three. Theoretically every other paint color that you need can be created from just the primary colors. Primary colors can not be created by mixing any other colors together.

So your paint kit must contain these colors:
Cadmium Red Medium
Cadmium Yellow Medium
Ultramarine Blue

SECONDARY COLORS

The secondary colors are orange, green, and purple. These colors are created by mixing equal amounts of two primary colors. The quality of color you can create is dependent upon the quality of the primary colors that you use.

Red + Yellow = Orange
Yellow + Blue = Green
Blue + Red = Purple

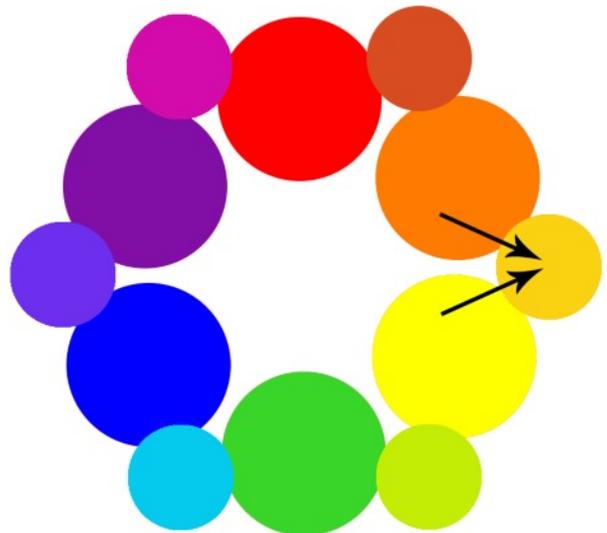
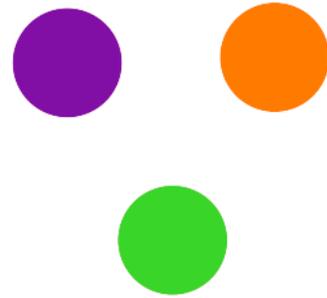
My paint kit does contain pre-mixed secondary colors:
Cadmium Orange Hue
Cadmium Verde Green (Permanent Green)
Dioxazine Purple

TERTIARY COLORS

Tertiary colors are created by mixing one primary color with one secondary color. Pure colors, those that have neither white, black, nor brown added, are called hues. All other color hues are made by mixing the primaries.

Orange + Red = Red Orange

Since Red + Yellow = Orange this can also be written
(1/2 Red + 1/2 Yellow) + Red = Red Orange or
1 1/2 parts Red + 1/2 part Yellow = Red Orange



Rooster Weather Vane original color pencil work by L. S. Irish

This rooster weather vane is worked using a color palette limited to the primary hues - red, yellow, and blue - for the main feathering in the chicken.

To keep the primary hues dominate shades of sepia brown, gray, and black-blue have been used to create the background wood texturing, border area, and chicken wire.

Pure hues most often fall in the middle layer of your design. For a scene with a grassy field in the foreground, barn complex in the middle ground, and mountain range in the background, the barn complex would be painted with the pure hues.



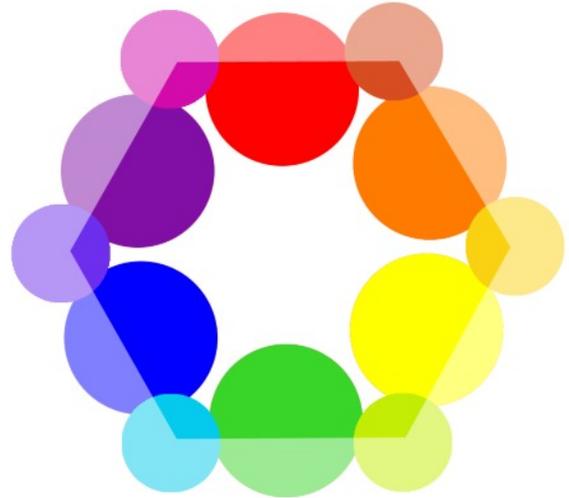
Gone With The Wind original watercolor by L. S. Irish

Tertiary colors that dominate *Gone With The Wind*. Red-purples, turquoise tones, golden orange, and terra cotta are used throughout the work with the only primary color area found in the American flag.

TONES - ADDING WHITE

Adding white creates pastel shades of a color hue. Once a color has white, brown, or black added it is called a tone. If you were painting a landscape, the light or white tones would fall in the background area and be used to color the mountain range. Pastels are used in the background areas because the atmosphere through which we look is filled with fine water particles. These give a thin "white" appearance to the sky and therefore whiten the colors of the shapes that lie behind the air.

Red + White = Pink
Blue + White = Baby Blue
So Pink (Red + White) is a tone of the hue Red.



TONES-ADDING BLACK

Adding black darkens a color hue without muddying the color. Dark tones or black tones are usually found in the foreground area of a painting, in the landscape example this would be in the grassy field. Since the foreground is closest to us we begin to distinguish more and more shadows within the foreground. This gives those shapes closest to us a darkened tone.

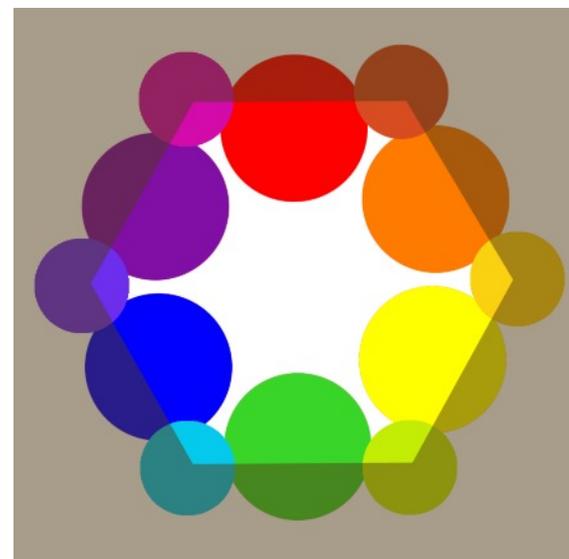
Orange + Black = Burnt Orange
Red + Black = Burgundy



TONES-ADDING BROWN

Adding brown to a color hue mutes or muddies the color. Brown or mute tones are used for shadows and shading. Each area of our example painting would use varying mute tones to create that 3-d look.

Yellow + Brown = Sienna
Green + Brown = Moss





Deep In The Shadows
original color pencil work by L. S.

Each color used in this color pencil work is a shade of gray or brown. The only area of pure color hue is the primary yellow ring of the eye.

To add to the muted color effect this pencil art is worked on a medium beige Stonehenge paper. Artist quality colored pencils are translucent - you can see through the layer of pencil to the color applications or paper color below. The beige colored paper therefore adds a second neutral toning to each color used.

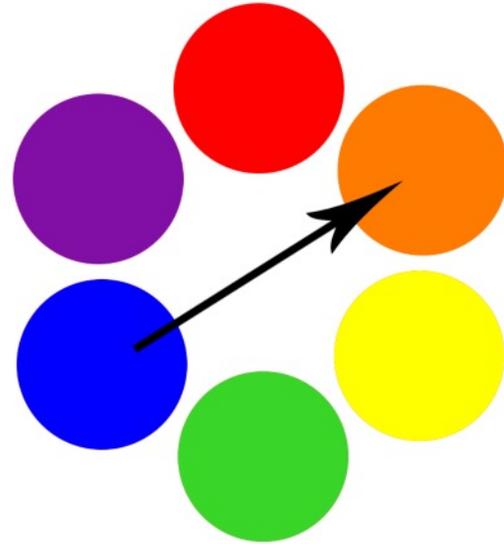
COMPLIMENTARY COLORS

Complimentary colors are two colors that lie opposite each other in the color wheel. Every color has a compliment and every tone of a color has a complimentary color of the same tone.

If you wish one color to have more emphasis in a design than any other color, use a small touch of its compliment somewhere in the pattern so that it touches that focus color.

Inside the eye are color cones that determine which color you are seeing. These cones are divided into two parts, one part sees a particular color and the other part sees the compliment to that color. So one cone would have a combination of blue and orange and another cone will be red and green.

Since a cone can only see one color at a time, placing a small amount of its compliment to that color in the design forces the eye to see the main color; a small amount of orange makes the blue/orange rods see blue!



MIXING COMPLIMENTS FOR BROWN

A color and its compliment mixed together will create brown.

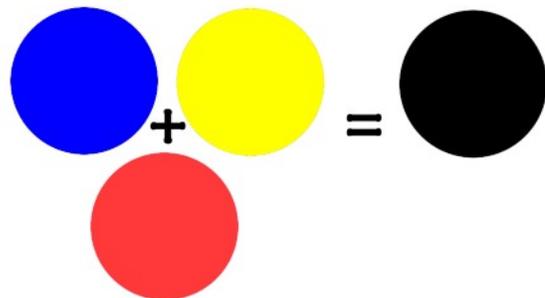
- Red + Green = Brown
- Blue + Orange = Brown
- Yellow + Purple = Brown

When you mix complimentary colors you are mixing all three Primary colors together.

- Red + Green = Brown
- Green = Yellow + Blue

So the formula of Red + Green = Brown can also be written Red + (1/2 Yellow + 1/2 Blue) = Brown !

This is why brown becomes the main shading tone for your painting. It allows for any combination of colors in that shadow area.



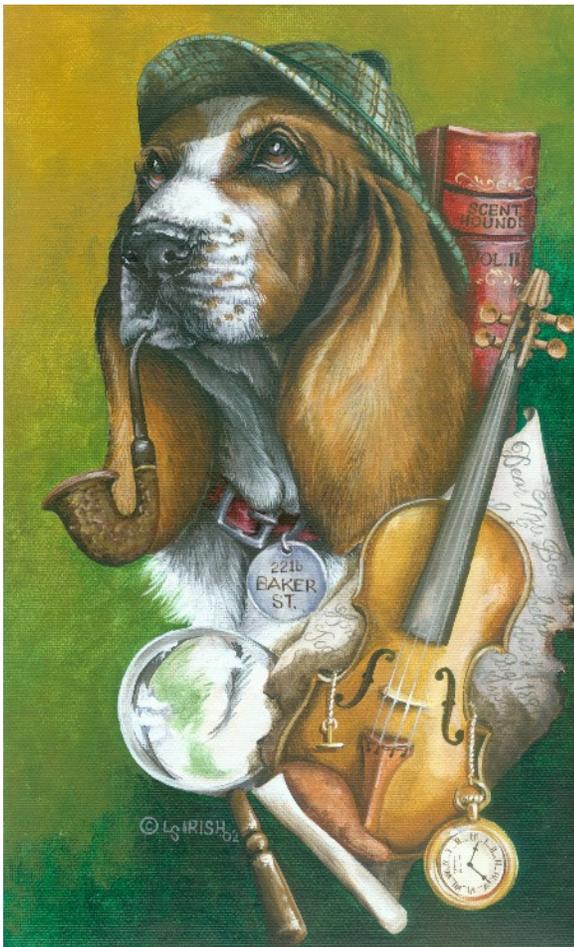
MIXING PRIMARIES FOR BLACK

The three primary colors mixed together will create black. Where brown is made by mixing one part primary with one half part of the remaining two primaries, black is made by mixing equal parts of all three primaries.

Again, there is no color black so even the pre-mixed colors in paint will be deepened tones of either blue or green. Test your black paint to determine which hue the color is created from by thinning the color to a wash consistency with the appropriate media.

The full palette for Sherlock Bones is ochre yellow, Verde green, cadmium red medium, titanium white, and carbon black. No pre-mixed browns or golden brown colors were used - all shades of brown were created by mixing the Verde green and cadmium red.

Sherlock Bones
original oil painting by L. S. Irish



Since the brown tones are so important in painting my kit contains:

- Raw Sienna - a yellow brown
- Burnt Sienna - a red brown
- Raw Umber - a blue brown
- Burnt Umber - a dark red brown
- Van Dyke Brown - a black brown



Colored Pencil Portrait
original colored pencil work by L. S. Irish

In this portrait, worked on off white Stonehenge paper, the black and extremely dark blue tones were created by using layers of complementary colors.

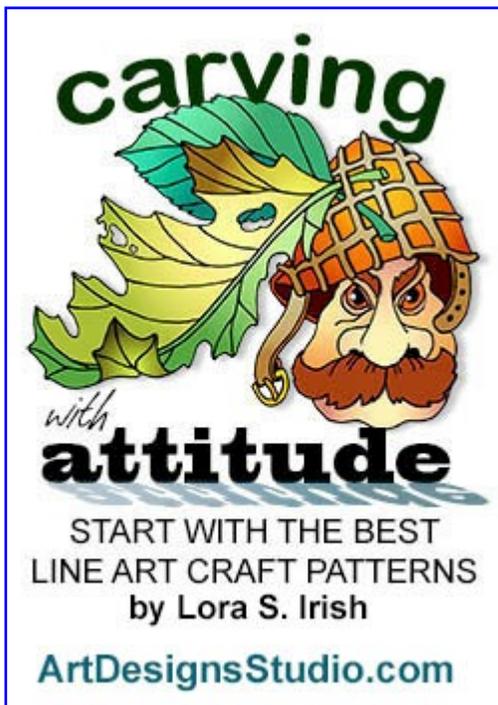
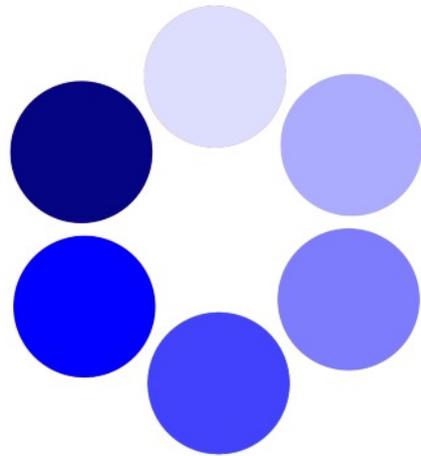
The black shadows of the skin tone have layers of black cherry, indigo blue, and forest green.

MONOCHROMATIC - LIMITED PALETTES

This is a wonderfully big word for saying that you are only using one color to create your painting: Mono, meaning one and chromatic, meaning color.

Paintings done in monochromatic style heavily rely on tones, the use of black, brown, and white additives to the basic color. Using just one color forces the eye to concentrate on the shapes and shadows of the design, not the color work.

The Sea Dragon, shown right, is a classic monochromatic color image. Worked in shades of yellow, from pale yellow through golden yellow brown.



Sea Dragon
original color pencil work by
L. S. Irish

From the
Eastern Dragons Pattern Package
available at
ArtDesignsStudio.com

GREAT BLUE HERON

Very few feathers in this water bird portrait are the actual blue tones of the great blue heron.

The back and wing area use a limited palette of red, purple, and blue where the face and neck areas use one red, oranges, and yellow.

With the dominate color tone of the back and wing feathers worked in shades of purple, it complements the yellow tones found in the neck.

The head dress area, eye area, and beak were worked using carbon black but all other dark toned areas in this work were developed with layers of black cherry, indigo blue, and forest green.



Great Blue Heron
original color pencil work by L. S. Irish

USING COLOR WHEEL 101 IN YOUR WOOD CARVING OR PYROGRAPHY

Wood carvings and pyrography works often have color added during the finishing steps of the project. Colored pencils and watercolors are common coloring agents for pyro with oils and acrylics added to the list for a carving.

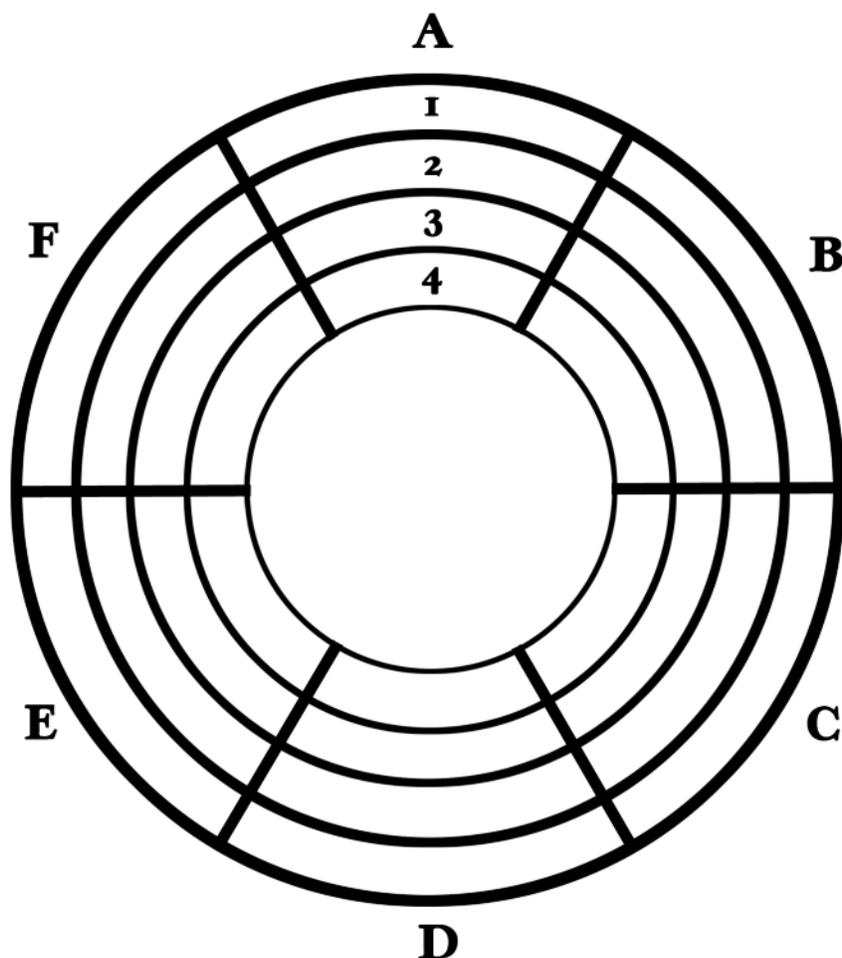
Coloring media are often low on the list of priorities when you are investing in your craft. I really do understand saving your money for a nice variable temperature burning system with several different pen tips or wanting a set of standard handle mallet chisels can be far more important than investing in a large assortment of colored pencils or paints.

So I thought I might show you what you can do with a minimal investment and limited numbers of colors. In any of the paint media you can purchase a set of five basic beginner's colors - cadmium red, cadmium yellow, ultramarine blue, titanium white and carbon black. This is as basic

as you can get and theoretically you can create every color in the rainbow palette from just these five.

Hopefully you can go a bit better and obtain a set of twelve in your choice of media - medium pink, cadmium red, light orange, cadmium orange, medium green, green, medium blue, ultramarine blue, lavender, purple. To this set I would add five shading tones - titanium white, carbon black, 50% french gray also called Payne's gray, black cherry and indigo blue. With this selection you have enough to make any color or color tone that you might need.

The color wheel template, below, shows a simple blank color wheel that you can print and use for your own color wheel work. The wedges of this circle are lettered A through F. throughout this practice A will be used for red, B for orange, C for yellow, D for green, E for blue and F for purple. Inside of the wheel are four circles numbered 1 through 4.



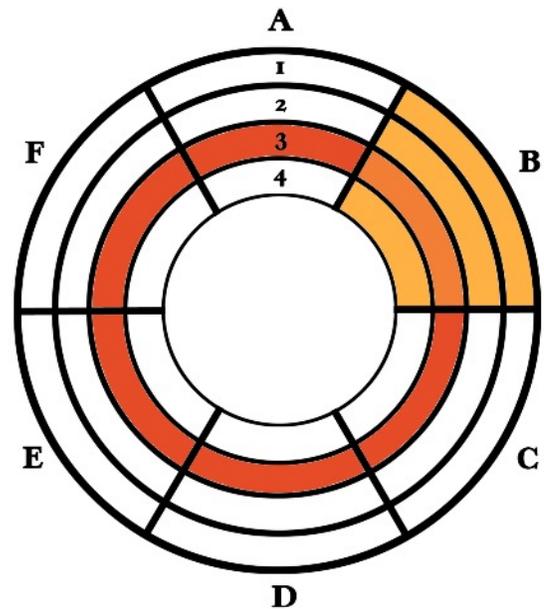
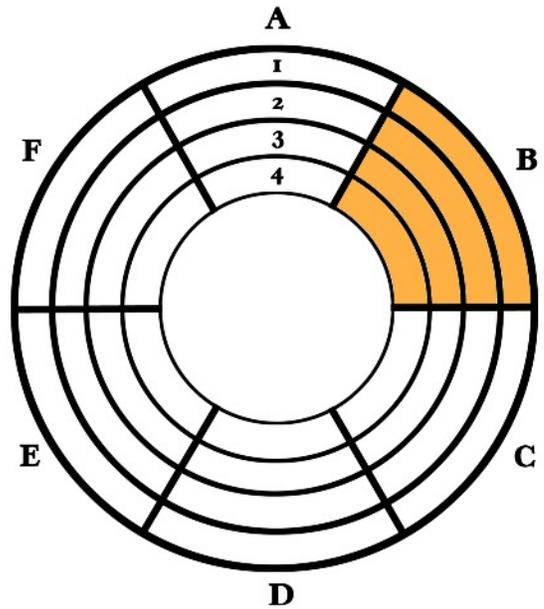
COLORED PENCIL PRACTICE

For my color wheel practice I have used artist quality colored pencils. Colored pencils are fantastic for pyro work as they are transparent, allowing the tonal values of the burn to clearly show through the color. They require no mixing, no media and they never bleed or run.

If you want to use colored pencils for the exercise but do not plan to make them a regular part of your craft kit you can pick up inexpensive sets at your local drug store, office supply store or large box store. If you are planning to make colored pencils a standard part of your kit invest in high quality artist pencils.

You can use watercolor or acrylic paints for your color wheel. I would suggest that you thin these colors 1 or 2 parts water to 1 part color to aid in their transparency. Work your practice wheel or either watercolor paper or canvas paper.

For my test color wheels I have used the pie slices A through F for my color hues and worked the entire slice to one even color. The rings 1 through 4 are where I have added other colors to experiment to create new shades, tones, and shadow colors.



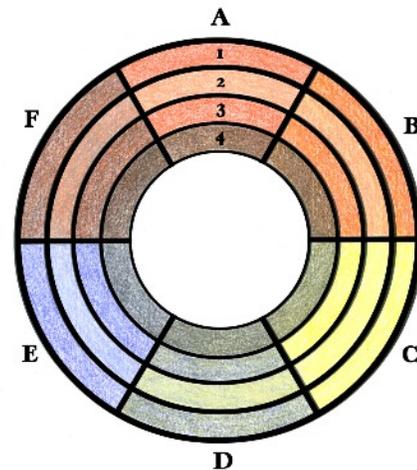
Peony Corner Pattern

ArtDesignsStudio.com

WORKING TEST SAMPLES

In theory you can create all of the colors you need using only red, yellow, blue, white and black. However, this is only in theory. Each media uses some type of float or mixer to create the actual paint or pencil core. Hues and tonal values change ever so slightly between media and manufacturers. So just because you have ultramarine blue acrylic paint and I have ultramarine blue colored pencil does not mean that once on paper or canvas they are the exact same color. Using the true or primary colors in colored pencils often results in blue + red = brown or blue brown. Yellow + blue = olive green instead of pure green.

Doing a test color wheel with the coloring agents you have at hand will help you determine exactly what colors, hues and values you can create.

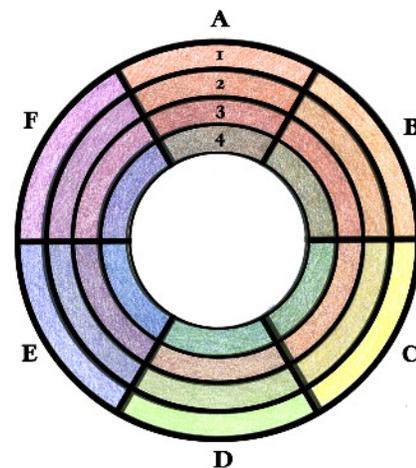
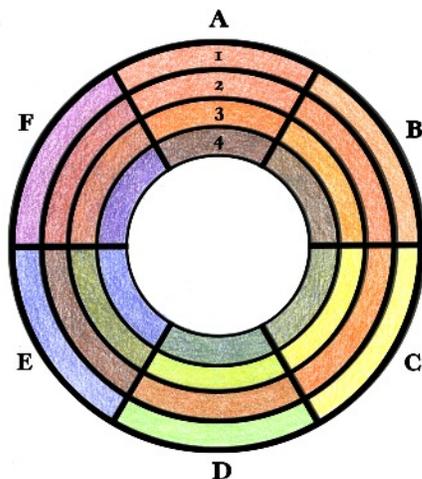


TESTING FOR LIGHTS AND DARKS

All of the pie slices were worked first in their primary or secondary color - red, orange, yellow, green, blue, and purple.

Ring 2 has been worked with several coats of white to create pastel or pale tonal valued color.

Ring 4 has been worked with several coats of black to establish the dark tones.



MIXING COLORS

In this test sample each pie slice was worked with its primary or secondary color.

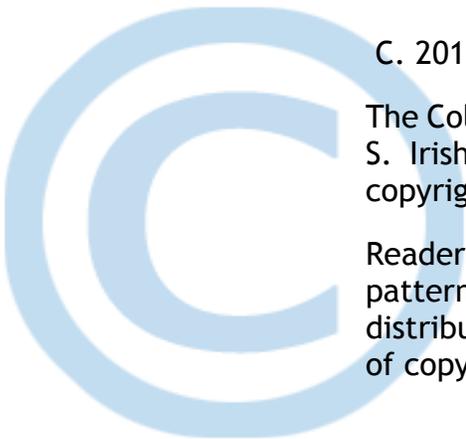
Ring 2 has had several added layers of red.
 Ring 3 has had several added layers of yellow.
 Ring 4 has had several added layers of blue.

SHADING TONED

In this test sample each pie slice was worked with its primary or secondary color.

Ring 2 has one added layer of brown.
 Ring 3 has two added layers of brown.
 Ring 4 has four added layers of brown.

COLOR WHEEL 101



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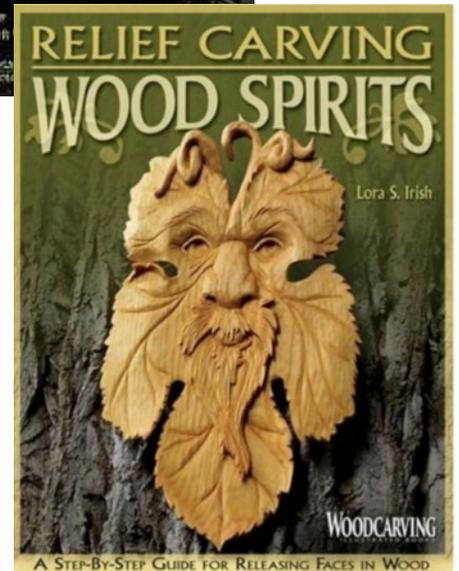
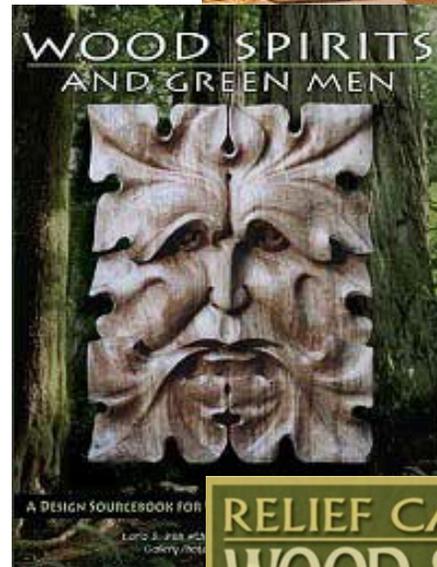
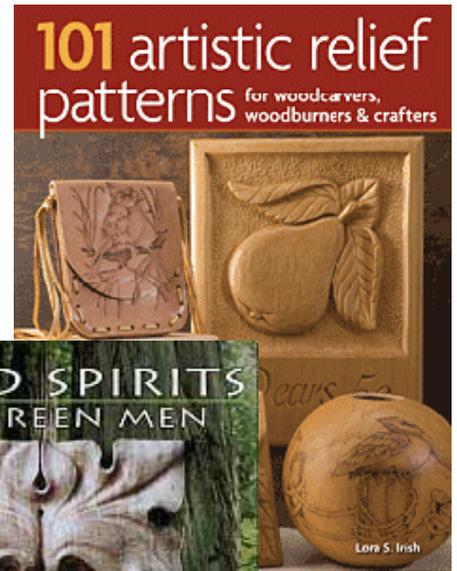
[Basics to Painting Wood Carvings and Pyrography Projects](#)

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About the Author

Lora and her husband Michael are the creators of [Art Designs Studio](http://ArtDesignsStudio.com), formerly known as Carving Patterns web site, an online pattern warehouse. Their site now features well over 2500 patterns and line art for fine crafters.

Trained as a fine artist Lora has focused her talents over the years to wood carving, wood burning, copper jewelry and fine art prints. Today she is the author of twenty-two craft and hobby books.



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