## Color Theory - background

The first two posts in this series were about using value in creating your color palettes for quilts. I said at the beginning that I believe that value is the most important element for quilters. But there's so much more to cover when it comes to color. I'm going to now start "at the beginning".....at least the beginning as I see it in my little mind.



As with many things in my life, my pursuit of color study began on a whim. Over 10 years ago I was looking through the Mid-Atlantic Quilt Festival catalog for classes to take. There was a class called Color Theory for Quilters by Jean Ray Laury. I had no idea who Jean Ray Laury was and wasn't all that interested in a color class but it met my primary class requirement: I no sewing machine required. So I signed up.

It was an all-day class and I could not figure out how she was going to be able to fill an entire day talking about color.

## Ha! Was I ever surprised!

First I was totally surprised by Jean Ray Laury. What an amazing instructor she was and when I was telling a friend about the class my comment was "I need at least 5 more all-day classes to even get started understanding color." It was as if I had my first taste of chocolate. I walked out of that class wide-eyed and energized and completely overwhelmed about all the other things that I knew I needed to know. That one class over 10 years ago started me on a great journey to study color.

I followed that class a few years later with a 2-day value class with Hollis Chatelaine and I've read over 12 books on the subject.

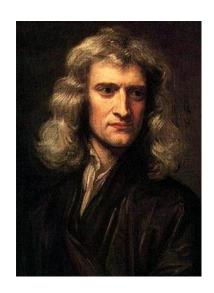
I'm no expert but I have learned a lot and will share all I can with you. With this series I'm going to take you through the bits of information that I know on the subject and show you how I use color theory principles in my own projects.

First let's talk about the physics a bit.

## What is color?

Color study goes all the way back to Aristotle and Seneca. The artist Goethe wrote a book on color theory in 1810 but the father of modern color study is Sir Isaac Newton.

Through his study of optics Newton proved that **color is a property of light and not a property of the object being viewed**. By using a prism he could split a beam of white light into bands of color and by placing another prism about 3 feet in front of the first he could combine the colors back into a beam of white light.



In another experiment he projected the bands of color from the first prism onto a white screen. He punched a hole in the screen in the path of the yellow band. He placed the second prism in the path of the yellow beam and the light was still yellow. It could not be recombined to great any other colors or back to white.

We all learned this in elementary science classes. It's all second nature to us now but it was quite controversial at the time and while we have all played with prisms and we understand this concept, we don't act that way in our daily lives. We still think of grass as green. In reality the grass is absorbing all light rays except for the green ones. What we see are the reflected light rays.

And grass is not green in the dark. It's only green in light and it's different shades of green in different lights. That's why color is a property of light and not the object.

Here's an example from our studios.



Here's a set of fabrics that I picked for the January Color Palette



Here's how it looks in darker light producing deeper, richer colors.



In bright light the darkest color looks blue instead of almost black and the pale colors lose some of their depth. They look "washed out".



Here it is in cool light where the reds have become purple and the light blue is bright turquoise.



In warm light everything is a little grayer.

This is why our fabrics sometimes look so different at home than they looked in the store. Look at the difference in that lightest blue from the two different light sources. In one it appears turquoise and in the other is appears kind of a gray-blue. This is why we obsess over natural light and try so hard to mimic natural light in our studios.

In my next post I'll introduce you to some a very brief history of color study and then we will get into color mixing and color wheels.