

Nature
Happiness
Strength/Security
Danger
Earthy, Natural
Hunger
Purity

GRC 101
 INTRODUCTION TO
 GRAPHIC COMMUNICATIONS
**THE THEORIES
 OF COLOR**

Information
 Sheet No. **302**

You may never think about color when you design. You may just think what looks good is what is good. Well think again, because it goes much deeper than that.

In these classes we want to begin talking about color theory. Beforehand, remember that some of this is hard and true "Color Theory" as it has been written for the past 100 years. Some of it is personal opinion about color. As an artist we must rely on intuition as much as we rely on theory and practice. It's like a musician: you can teach them all the music theory you want, but you should never "train-out" their ear. That's what makes them an artist. Let's begin by talking about some really simple ideas about color and then move on later to more complex ideas, psychology and practice.

First you need to be introduced to a term in color theory called "analogous color". This means when you have a series of colors that are the same hue, but a different shade or saturation value. Look at the image below to see what I mean.



Here is a series of brown colors going from a dark shade to a light one. You should be able to feel a sense of something with this color scheme, but we will talk about that later. What we have here is a series of analogous colors. Now brown isn't the best example, so let's look at blue.



Here we have the same series, but with blues. Now, analogous colors can be any hue. If you were using a greyscale version, they would go from black to white through a series of grays. Technically, black is not a color per se, but you get the idea.

So why do you care? Well, you care because the values you choose in your color scheme whether your scheme is for print, the web, or anything else is vitally important. Choosing analogous color schemes is very useful for tying together elements in a layout. You can use it to evoke a sense of structure, simplicity and sophistication. It is also useful as an underlying color scheme, where design elements can compliment it. We will deal with complimentary colors later, but think about how often you see combinations of blue and orange, or blue and yellow on the web. Those colors are complimentary to one another.

The level of saturation in color is important in making sure your color scheme works. Take a look at the image below.



This is the blue image that has been completely saturated. I used the Hue and Saturation command in Photoshop to do this. See how different it feels from this next image.



The first image is not my idea of sophistication. Typically, web sites and print material that are trying to evoke calm, structure and maturity use soft, desaturated colors. Full saturation is sometimes useful for work that is aimed at younger folks.

Just for clarity here are the brown images to look at.

The saturated one:



The desaturated one:



This is the subtlety of color theory. How to work with color in Photoshop will be discussed throughout this Information Sheet.

Remember, you can have several colors that are similar to one another, but yet different. That's almost right, but not quite. What we previously discussed is really what is called "monochromatic". I didn't want to confuse you with the term monochromatic, because a lot of people that hear that think that we are talking about a single color. What we are really talking about when we say monochromatic is a single hue, but several tints or shades. Remember, as a scheme, this is *monochromatic*.



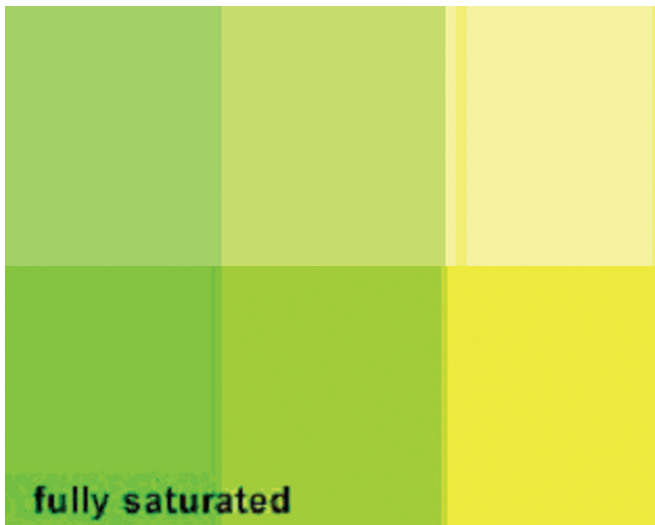
Now to truly discuss analogous color schemes we have to break out the color wheel. The color wheel is a circular pattern of colors that go from one hue to the next in a continuum. Take a look at the next image.



You see that there are lines going across a series of hue values. These would be analogous to one another. As monochromatic was the use of a single hue with different shades, this is the use of two or more hues to provide a color scheme. In other words, you use two different colors next to each other on the color wheel. So this could be purple and blue or red, purple and blue etc... Take a look at the next color scheme to see what I mean.



Notice that there are a couple of actual hues here. It is subtle, so that you can see the usefulness of the idea. You may not particularly like the combination of a fully saturated yellow coupled with a fully saturated green. But when you desaturate the two, you get a nice combination. Compare the next two images.



While the first one is sort of light and Springish (as in the season of Spring), the second one actually makes me feel a little queasy. That doesn't mean that the second combination doesn't have its place in the world. A few colleges have chosen green and yellow for their school colors. Even combinations which don't, at first, have appeal may work well.?

In review to this point the discussion has been about analogous color. Analogy means that things are alike, or have something in common. Monochromatic color schemes use a single hue with several



shades. See the image below.

I hope you have soaked this all in. Like most theoretical things, this whole process can be a little confusing, but practice playing with these colors and others. You might also go out on the web and see what people are using as color schemes. In the next section will be a discussion about colors that are dissimilar.

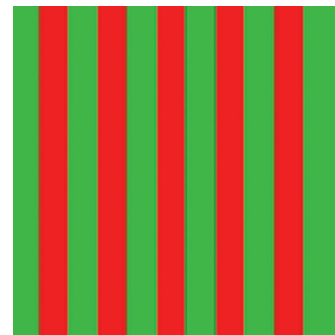
Look at the following image and notice that the arrows point in opposing directions. This is demonstrating the concept of complementary colors. First of all, consider the color directly across from any other color as being completely opposite. They are as dissimilar as you can get. The theory behind this concept is that you have colors so different that they compliment each other like a symbiotic relationship.

One color compliments the other. That is the bare-bones version of the theory. You get combinations like green/purple or blue/orange. Utilizing this knowledge,



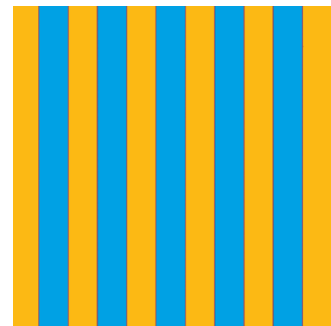
COMPLIMENTARY COLOR

you can have tension come out with your color. Instead of having a peaceful feel, you get a degree of contrast or conflict. This of course does not mean that it's a bad thing. Contrast is a good thing, if that's what you are going for. Take a look at the next image.



Here you have red stripes against green stripes, or the opposite if you like. Notice how the two colors are fighting for your attention? The red one sort of wins out, but that is because it is a warm color. Warm colors are considered to be "advancing". They appear to jump out at you from the image. This is especially true if you place them against an opposing cool color.

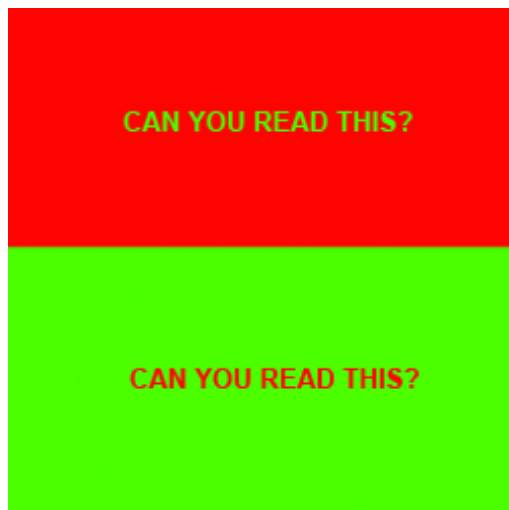
Here you have another version using orange and blue. Yellow and blue also works. You'll see a lot of web sites using this combination. It sort of jumps out at you. It sticks out like a sore thumb so to speak. But it also compliments the layout and adds



a little excitement.

There are good ways and bad ways to use complementary colors. One great way to do this is when

discussing type. Why is type so important on web pages, and why does it matter what the color of it is? Well, because you have to be able to read it, right? So how about an all orange site that used blue text? For one thing, it would look horrible, and you would have a terrible of a time trying to read the text, unless I made it large and extremely dark. The same goes with red/green combinations or red/purple combinations. They just hurt your eyes, unless you use the warm color as the text against the cool, complimentary color background. Take a look



below.

Can you see what I mean?

Now remember that color theory is a "THEORY". That means that it is not written in stone. every serious student is encouraged to go out and learn more about color theory. Start with the other information sheets provided on the web site as part of this class. There are sources on the web, if you search for them, or you can buy a book. Sometimes it is very effective if a designer steps out of bounds and uses a non-traditional color scheme. But please don't go out and make a red page with green text on it in 7 point type. It can't be read--guaranteed! What you can do is experiment with these techniques on your own, and see how things feel and look. Always keep these basic concepts in your head, and you will be better off for it.

Why do McDonalds and Burger King use orange and red in their sign' color schemes. To better understand all of this, go out and surf the web, making note of how designers use color. What sites do a good job and what sites do a bad job? You now are empowered to decide.

Why all of this talk about color? Big deal, who cares? Well you should, if you want to present effective graphics.



After looking at the above image, do you feel hungry? Do you feel happy or sad or anything? Actually, in this context, you probably don't feel anything. Let me ask, other than blueberries, when is the last time you ate something blue? How about a blue, hard-boiled egg? How about green potato salad? Do these sound disgusting? How about blue pasta? Sounds great huh? No, it doesn't.

There are colors that affect us psychologically. The reason for comparing the upper image of oranges and yellows with blue is that the former is much more appealing with regard to food than the latter. In other words, you can accept the idea of orange and yellow when it comes to food, but blue or green?.

Companies like McDonald's, Burger King, Wendy's etc. take advantage of these psychological effects, and so should you. When you design, you should at least consider the implications of the colors you use. Many of you have heard this before. Some of you have no idea. This part is for those who have no idea.

How does green make you feel? How about

white? Your answer will depend on where you come from in the world. For us in the United States there is a set of “cultural” rules that define what colors mean. White is pure, like in weddings. Black is solemn, like at funerals. These colors do something to use mentally. They affect how we think about what we look at. Take a look at the graphic below. On each color is the general meaning it conveys in the United States.

Do these colors and descriptions make sense to you? They do to most people. In fact, a number of studies have been conducted to find qualitative evidence that they do affect people in ways that we sometimes don’t even realize. Hospital rooms have certain colors such as yellow and green to help



soothe patients back to health. Martha Stewart uses greens in her branding to convey a sense of nature and serenity. Take a look at a bank’s logo. Most times, they will be blue, conveying a sense of security, calm and strength. And of course, all your favorite fast food places use orange to make you hungry. Think about it.

The point is that color is vitally important. As a designer, don’t pick colors that are your favorites. In fact... don’t even have favorites. If you ever fill out a survey and they ask for your favorite color, you should be stuck for an answer.

Like every color when it is used well and have no favorites. That does not mean that you can’t break the rules! That is what rules are for: Break ‘em since they are there! But you have to know the rules before you can break them.

Just be mindful of color in design. It is important to your subject matter. Use color to make your designs more user friendly, and more usable overall. The color should be a reflection of the site’s content and the company’s branding. Or, just from a completely artistic point of view, color can bring harmony or clash to a site. Both are cool, but you have to know what goes with what to pull it off. So break out the color wheel and have a go mate.