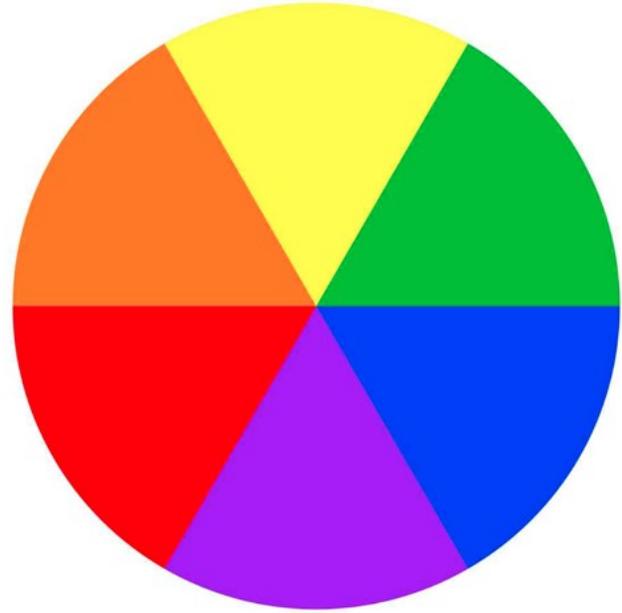


## Mixing Clean Bright Colors by Bobbi Heath

I like to paint with clean bright colors. In years of studying with many teachers I've learned to mix them and it makes painting so much easier. There are three things that will help you create clean bright color, and also to make neutrals that are appealing rather than muddy.

The most important thing is to minimize the number of pigments that you mix together. Our primary colors are yellow, blue, and red. When you mix two of them together you get the secondary colors, orange, green, and purple. You get orange by mixing red and yellow, green by mixing yellow and blue, and purple by mixing blue and red.

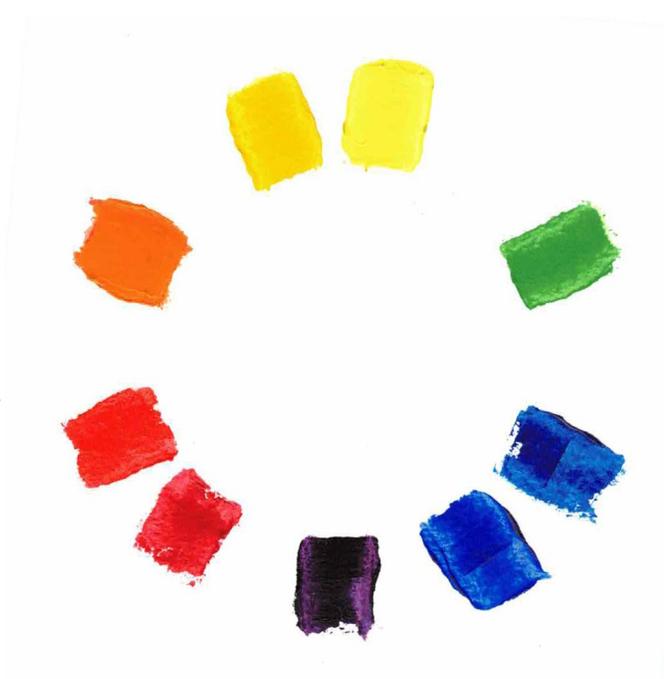
But the problem is that there are no perfect primary colors using the pigments available for us to paint with. Any yellow pigment that you choose is either going to be a little closer to orange or a little closer to green than the perfect yellow pigment. And that's true for blue and red as well. But we can take advantage of that!



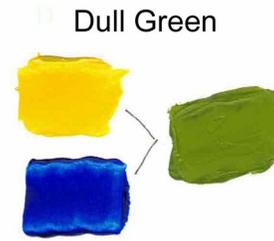
### Use a Double Primary Limited Palette

A double primary palette contains two of each primary color plus white. The secondary colors and any others that you need are mixed from those seven. This gives you a huge amount of control of the brightness of each mixture.

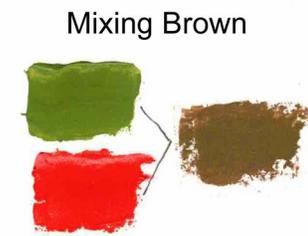
In the double primary palette on the right you can see that I have two yellows, two reds, and two blues. There is a yellow next to orange, it leans towards the orange. There's a yellow next to green, it leans towards the green. The brightest secondary colors are made by mixing the two primaries on either side of the desired secondary. The green paint in this color wheel was made from mixing the blue next to the green and the yellow next to the green. I've made the purple with the blue next to the purple and the red next to the purple. I've made the orange with the red next to the orange and the yellow next to the orange.



Note what happens if I mix my green using the yellow and the blue that are not next to the green. As you can see, I have a rather dull green. That one could be useful for some foliage, but it is not as bright as the green shown on the layout of my paints on the color wheel. The reason it is duller is because by using the pigments that lean towards the primary not involved in this mix, i.e., orange and purple, I'm getting some red in the mixture. Red is the complement of green, and mixing it into green is going to dull the green. If you add in too much red, the green will become brown, as shown in the image.



That's what's going to happen if you mix any of the primaries with enough of their complement, you're going to get brown. And that's what causes mud, especially when you start adding white. If you want to create a clean bright color, make sure that you are not mixing in the complement of your desired color.



How do you choose the two paints of each primary color for your palette? There are some differences of opinion, but most oil and acrylic painters use Ultramarine blue for the blue next to purple. I use Phthalo blue for the blue next to green, others use Cobalt blue. I use Hansa yellow for the yellow next to green and Cadmium yellow medium for the yellow next to orange. Some use Indian yellow instead of Cadmium yellow. In this palette I've used Naphthol red for the red next to orange, but sometimes I used Cadmium red medium, and I used Quinacridone red for the red next to purple.

### Use Single Pigment Paints

The second thing you can do for clean bright colors is to minimize the number of pigments that you're using by using single pigment paints. If your paint out of the tube has more than one pigment in it, you've already got a mix before you start mixing!

You can find the pigments in your paint by taking a look at the tube. See the above example of Ultramarine Blue in both acrylic and oil paint tubes. The information is on the front of Golden Acrylics and on the top left of the back for most oil paint brands. In both examples you can see the name of the pigment (Ultramarine Blue) and the number PB29. The number starting with the P tells you what pigment is in the paint and that number will be the same no matter which manufacturer made the paint. When you only see one number you know you have a single pigment paint, and that's what we're looking for.

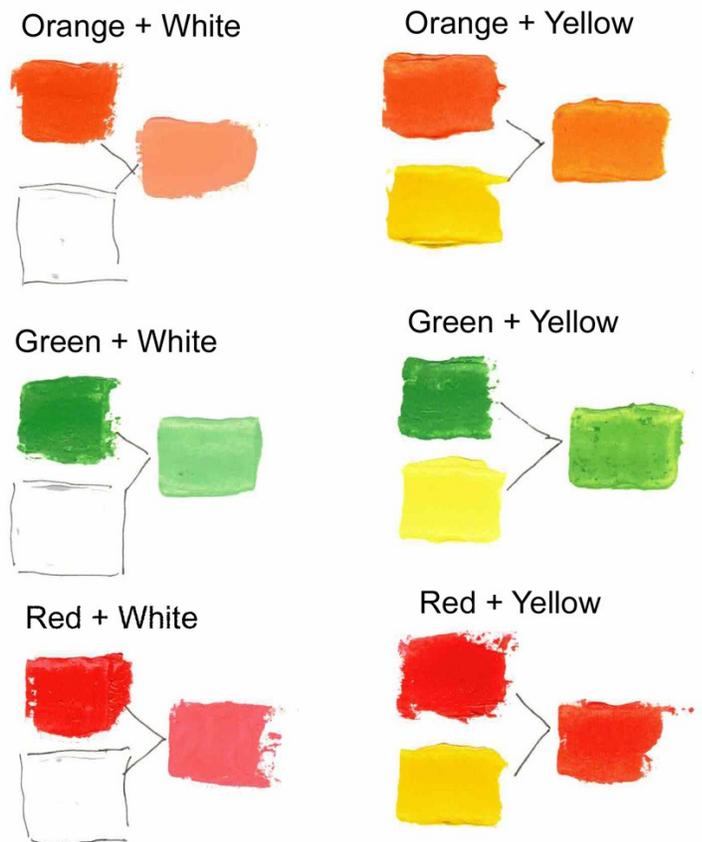


## Be Careful with White

The last thing I want to mention is using white to make colors lighter. Adding white to a color makes it dull. This prevents your light colors from being bright and clean.

In the example on the right, I've mixed a bright orange, and lightened it in two ways. First I added white, which gave me a peachy color. Instead I tried again by adding more of the yellow that I used to make the orange. That gave me a lighter orange. I tried the same thing with my nice bright green. Adding white gave me an interesting color, but it's not what I usually want for foliage. Adding yellow gave me the lighter green I was looking for. If you do this with red, you'll see that adding white makes pink. Adding a little of the yellow that leans towards red instead, makes a lighter red.

To be clear I'm not suggesting that you never mix white to lighten a color, it works quite well with blues and purples. Or that you never make brown. Or that you never mix a little of the complement into a color to make it darker. What I'm saying is be careful when you're mixing color and think about how many pigments you're mixing together. Find the way to mix the minimum that you can to achieve your goal, whether it be a bright clean color, or a beautiful neutral that is not mud.



I hope these suggestions help you to create clean bright colors in your paintings and eliminate mud. If you'd like to learn how to do this with me, please check the classes page on my website.