



## HOW DID THEY GET THAT COLOR

There are often situations where you are asked to not only match the color of a sample but also the look. Coming up with an exact match can sometimes be a daunting task. Our examination of the different wood coloring systems has shown us that different color/stain systems create different color effects on the surface and in the grain of the wood. Often color is built up in layers so at times you have to play archaeologist and “dig” thru the different layers to figure their make-up.

Here are some thoughts and tricks that I use.

- Hold the sample and rock it slightly from side to side. If the color dances around the surface, flipping from light to dark then the wood has a dye applied to it. This iridescent effect is called **chatoyancy**.
- If the color is clear and bright, then it's a dye.
- If the color is clear and bright and did not take on the harder latewood, then it is a dye applied to the bare wood. For instance you will see white latewood grain lines on maple.
- If the color is clear and bright and very uniform, then it is a dye used in a spray only stain base or mixed with finish and used as a toner.
- If the color is clear and bright, but the early wood is darker than the latewood than it could be a waterbased stain.
- If the color is flat or muddy then there are pigments involved.
- If the pores are open but dark, then either a wiping stain, a glaze, or both are involved. Wiping stains and glazes will mark the pore on open grained woods like oak. Dyes and spray only stains won't.
- Wiping stains will leave a little bit of color in the fine texture of even closed grained woods like maple and cherry. It gives it a slightly dirty or pecky appearance.
- If the color is a little flat and muddy and the surface is an even color, no dark pores, then a pigment was used in a toner somewhere in the system.
- Paste Wood Filler- color in the pore, grain is filled. Color can look a little muddy.
- Glaze - grain is open. Color in the pore, cracks or corners. Color looks a little more on the surface than with a stain.
- Applying a glaze or a paste wood filler over a stain will usually alter the stain color somewhat. If a dark paste or glaze is used then not only will the pores darken, but the overall color will darken as well. If a lighter color is used then the opposite is true. This can make it a little more difficult to determine what exactly was the paint or stain color before the glaze was applied.

- Bleach - background color is very uniform, lacks surface color variations. Color looks unusually cold, or is lighter than the natural background color of the wood. Stains do not mark the pore as dark as they would on an unbleached piece of the same species.
- Toners - colors look a little more on the surface than a stain. Color is uniform even over the grain. Can sometimes muddy the grain. Toners made with dyes are more transparent than toners made with pigments.

Deep dark colors are usually a 2 part system such as:

- Dye and a wiping stain - marked pores.
- Dye and a glaze - marked pores but still a very clear color.
- Dye and a toner - unmarked pores.
- Wiping stain and a glaze - marked pores and a good color contrast between pores and surface.
- Wiping stain and a toner - marked pores but color contrast is not as great. The color is a little more blended.

Sometimes you have to play detective and use whatever means are available to help solve the puzzle. This is particularly true on multi-step systems like painted and glazed pieces.

- Flip the piece over or look at the edges. Often there are tell tale signs of drips, runs and overspray that can help you figure out the components of the color system. Sometimes its not what's there, but rather what's not. Maybe an edge or back didn't get glazed or toned and that lets you see one of the colors before another was applied over it.
- Look under any hardware that may be on the piece. The color there is usually not affected by sunlight or wear. Helps you figure out if the color you are seeing is influenced by aging of the wood or yellowing of the finish.
- If possible carefully scrape thru the layers of finish with a corner of a razor blade. Look at the color of the shavings, is there evidence that a toner was involved? Did you go thru a layer of glaze. Look at the color of the wood, was it stained. Scrape a little into the wood, does the wood get darker indicating that the surface was bleached, either chemically or by sunlight.
- Make sure the sample you are looking at is clean. This sounds really dumb, but more than once I have seen remarkable differences in color after a sample was wipe off with a rag and a little soap and water.
- Be aware of the differences sheen can make on the color. As the sheen goes up so does the amount of yellow that we see.
- When evaluating a freshly made color sample let the sample dry until it reaches its final sheen. As stated before, the shinier the finish the brighter, or more yellow the color.
- Some paints darken as they dry, so give them time.

## HOW DID THEY GET THAT COLOR - Continued

- Mother Nature can be difficult to copy. Most woods darken with age. Maple turns a golden yellow, cherry a rich brown. Cherry and teak darken with exposure to sunlight, walnut on the other hand lightens as it goes from a purple brown to a golden brown. Red dyes tend to fade in sunlight, so a brown wiping stain that contained some red dye may have gone from a warm brown to a cool brown. Finishes can also yellow over time, adding even more confusion to the matter. Compound the fact that all of this is going on above and below what may have been the original stain color. When recreating colors that have aged it is important to not only get the right color combinations, but you must also get them in the right color layer of wood, stain or topcoat to get a perfect match. Order counts.
- Paints made in a clear base will let some of the background color show through, so they will change their intensity depending on how many coats of paint are applied and sometimes even be affected by the color of the primer beneath the paint.
- Always spray out your paint sample, don't dip. Some pigments are lighter than others and can float to the surface if the film is too thick, causing an incorrect color reading.



## MAKING COLOR SAMPLES

**Always make “stepped” samples.** They simply show each of the steps you took to create the sample. You can see the color intensity of the various layers of stains and dyes as they appeared before they were sealed or glazed over.

**Be real.** The way you finish the sample is the way you are going to have to finish the piece. If you have to baby it, be sure that the extra time and money are covered in the price.

**Develop a standard size sample.** This will make them easier to store in your library and it also makes for a very professional presentation.

**Print a label and have a disclaimer.** Design a label that contains your company name, address, logo, etc. Then have an area where you present your explanations about the possible variations in color, grain, and anything else that you feel important. Leave space for a description of the sample and also the date. You can print these labels out and put them on the backs of all your samples. This is for your protection, and it is your most probable defense in case of a dispute.

**Don't forget to date your samples.** Woods like cherry darken quickly with age. It can be difficult to recreate that dark patina on new wood. If you think that this could be an issue, state it on your label.

## COLOR SAMPLES A DIFFERENT WAY OF THINKING

Everyone has had to make their share of color samples, and most of the time we don't greet this part of the job with a lot of enthusiasm. Quite often a lot of expensive time and material go into that little scrap of wood.

Because of the high cost of making a sample, we should find more ways to get value from it, certainly more than using it just to show a color match. As I hope you will see, the lowly color sample can be a key element in adding some profitability to your finishing operation.

**Making samples isn't a waste of time; it's an investment in time.** If you look at from the perspective of being an opportunity rather than an obstacle, you can turn your simple color samples into a marketing and sales tool, a production aid, and an insurance policy all rolled up into one.

### Your samples speak volumes about you

It pays to spend some quality time when making samples because first and foremost they are a marketing and sales tool. When you present a customer with a finish sample, you are giving them a physical example of your work. This is your opportunity to make a great first impression. Make it yet another example of your high level of quality and professionalism. Realize it or not, you are being judged on more than your eye for color.

**Take good notes as you create the sample and then clearly write down the final recipe.** These two simple acts are the key to the rest of this value added system. Each color that you match is a victory won, and you should have to win each victory only once. Doing the paperwork will not only make your formulas accurate, it will make them repeatable.

**Build a library of your samples and refer to it often.** Even samples that didn't get approved might appeal to someone on another project, and now you not only have the sample, you have the recipe as well.

