



Warp & Weave

Design your own beautiful handwoven fabrics

www.warpandweave.com

Color mixing is a complicated topic, especially in weaving. In this course, I'm going to focus on giving you some basic concepts of color mixing and then give you tools to experiment with it on your own.

A brief recap of color mixing from the hues section. Primary colors are pure colors. They cannot be created by mixing other colors together. The primary colors for weaving are yellow, magenta, and cyan, also known as turquoise. Mixing two primary colors in equal proportions gives you a secondary color. The secondary colors are orange, green, and purple, and they fall between your primary colors on the color wheel.

Here's how this works in weaving. These two yarns, magenta and yellow, are primary colors. They weave into an orange plain weave fabric.

Mixing a primary and secondary color gives you a tertiary color. There are six tertiary colors, and they fall between the primary and secondary colors on the color wheel.

Here's how this plays out in weaving. A green yarn and a yellow yarn blend to make a yellow-green plain weave fabric.

Mixing two primary colors produces an equally bright color somewhere between those two colors on the color wheel. In theory, mixing all three primaries in equal amounts should produce gray. It's not usually that neat, but in general, adding a third primary to the mix does dull the color, introducing some gray. So if you want to keep your colors bright, mix only colors that fall between two primaries on the color wheel.

Another way of looking at it is that colors that fall between two primaries will mix into equally bright colors. So colors that fall into each of these three segments of the color wheel will mix into other bright colors.

For example, this blue and magenta fall into the same segment of the color wheel, so they will mix into an equally saturated blue-purple, as you can see. But orange and blue fall into different segments of the color wheel. And these two yarns weave into a muted blue-gray that is much less saturated than either of the original colors.

Weave structure determines what proportion of warp and weft will show on the face of your fabric. Here the warp is turquoise, and the weft is magenta. Woven in 1/3 twill, the weft dominates, and the cloth appears mostly magenta. In 2/2 twill, the proportions are equal, and the fabric is purple. In 3/1 twill, the cloth is blue.

Weave structure also determines how much the warp and weft will blend. In plain weave, optical mixing dominates, and the fabric appears to be a nearly solid color. In twill, there is more texture to the color. In the twill blocks, the colors are nearly separate. This is particularly useful when two bright colors blend into a dull one and you want to preserve the bright colors.

A full discussion of color mixing would occupy an entire class in itself. If your weave structure blends the yarns together rather than keeping them separate and you are





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wondering what color two yarns will weave into, a good first step is to try an online color mixer, such as the one above. The URL is in the lecture notes. It won't give you a precise result, but it will give you a rough idea of how the colors will look when mixed.

Another way to test your colors is to use the online color editor at handweaving.net. This was recently developed by Kris Bruland. It allows you to upload a .wif file, choose a solid warp color, and choose a solid weft color. You can also change the size of the display and whether the grid lines show in the drawdown. It's a great way to explore simple color combinations in weaving drafts. You will need a handweaving.net subscription, but that also gets you access to all of the handweaving.net drafts, so it's a great deal at only \$20.00 a year.

