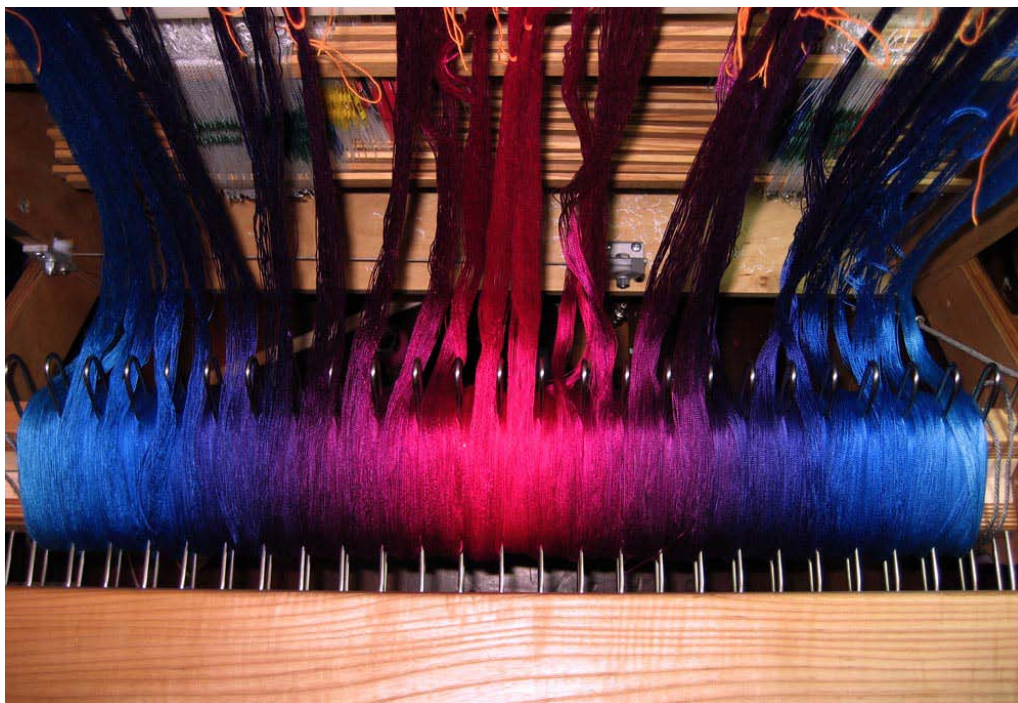


I love playing with color, especially gradual color changes. In 2008, I made a shawl that shaded gradually from red to yellow in both warp and weft, using an 8-shaft advancing twill pattern by Flavian Geis. The result was my "Liquid Fire" shawl, shown below:



As you can see in the photo, the warp shades gradually from red to yellow and back again, and the weft also shades from red (left) to yellow (right). The result is ever-changing color, and a very interesting-looking shawl using a relatively simple weave structure.

As an encore to "Liquid Fire", I decided I wanted to play with more color changes. This time I dyed 29 skeins of yarn that shaded gradually from fuchsia to turquoise:

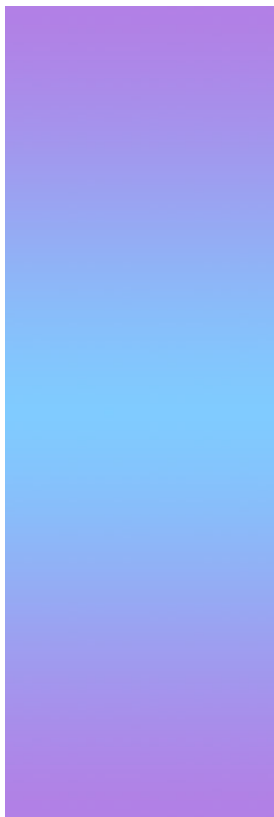


I already knew I wanted to do something complex with color, but what? Since it took many days to dye each set of graduated colors, I couldn't afford to sample at random. I needed some way to visualize what was going on.

I started by going to Photoshop and combining simple gradients. I started with a single layer, representing the warp, composed by using the gradient tool:



Then I created a new layer, this time representing the weft, with the opacity set to 50%:



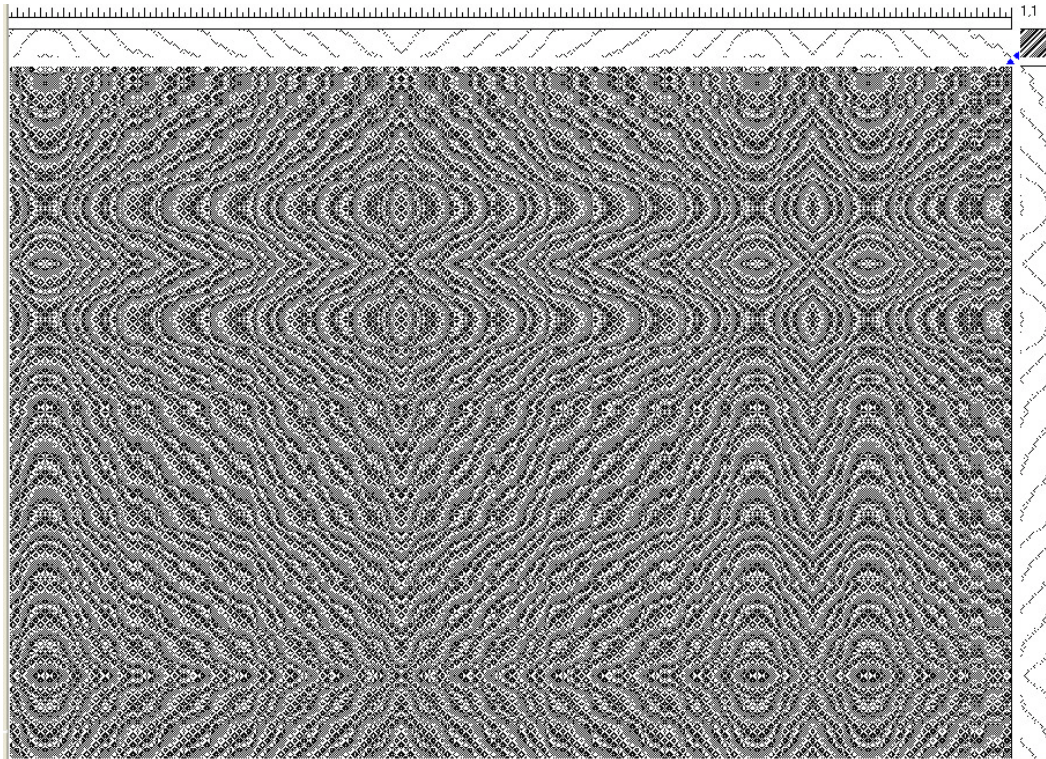
Superimposing the weft on the first warp yielded this:





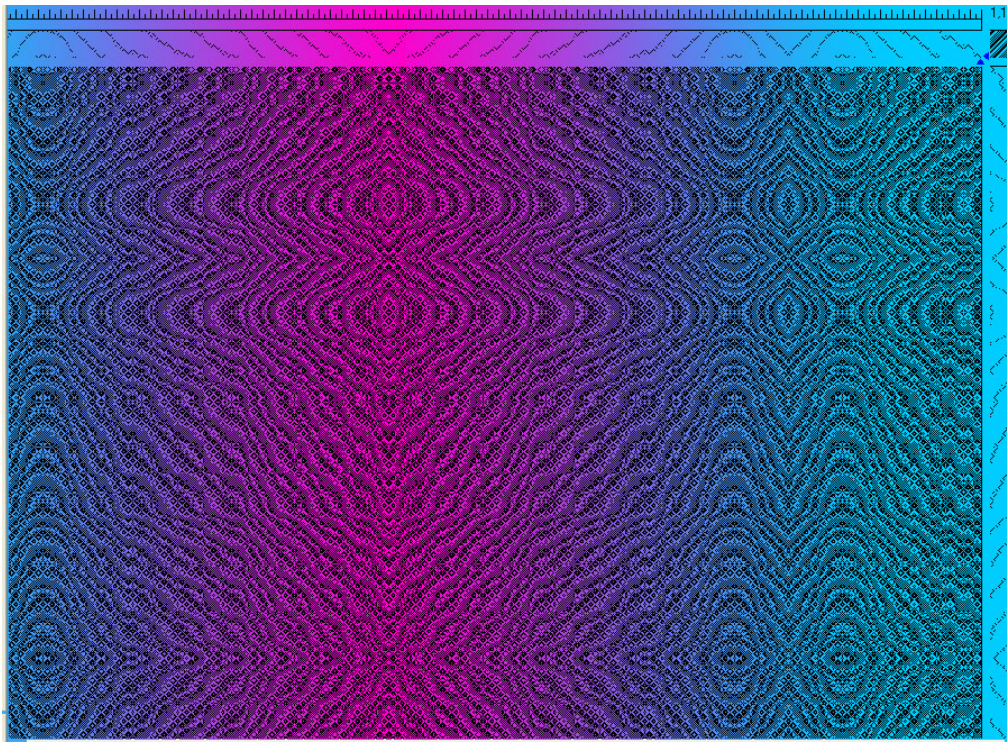
This was a decent enough color simulation of what would happen, but it didn't really capture the interaction of color with pattern, especially since I was planning to use a rich, complex network drafted twill. Photoshop could show me the color gradients, but it couldn't show me the dots of color that would be visible in the woven piece.

Back to Photoshop. This time I took a screenshot of the draft as it appeared in Fiberworks PCW (zoomed out as far as possible), and pasted it into Photoshop. I cropped out everything except the draft, selected all the white pixels using the magic wand, and deleted them. This left me with only the black pixels on a transparent background:

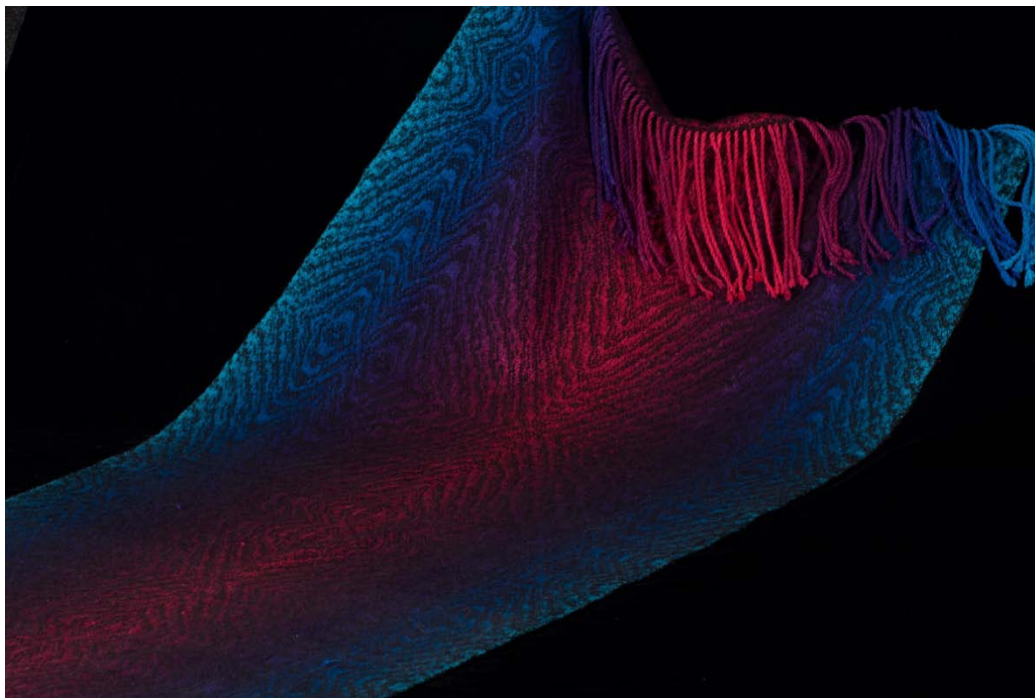


Putting the semi-transparent drawdown on top of the gradated warp simulation yielded this:





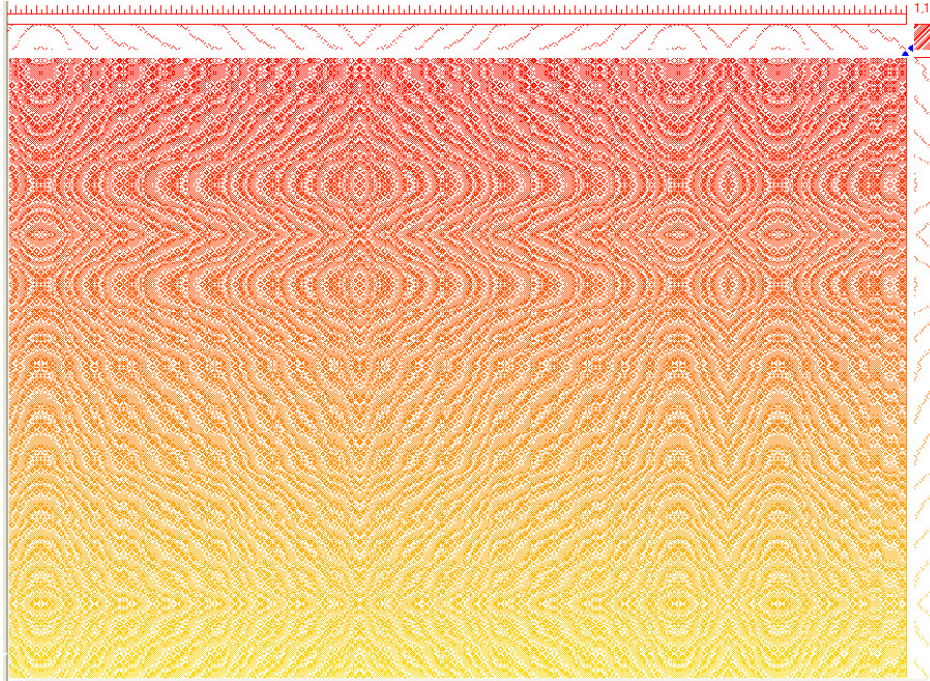
This got me closer to my goal, and actually turned out to be a pretty good simulation of my Black Jewel shawl, woven with a black cashmere weft:



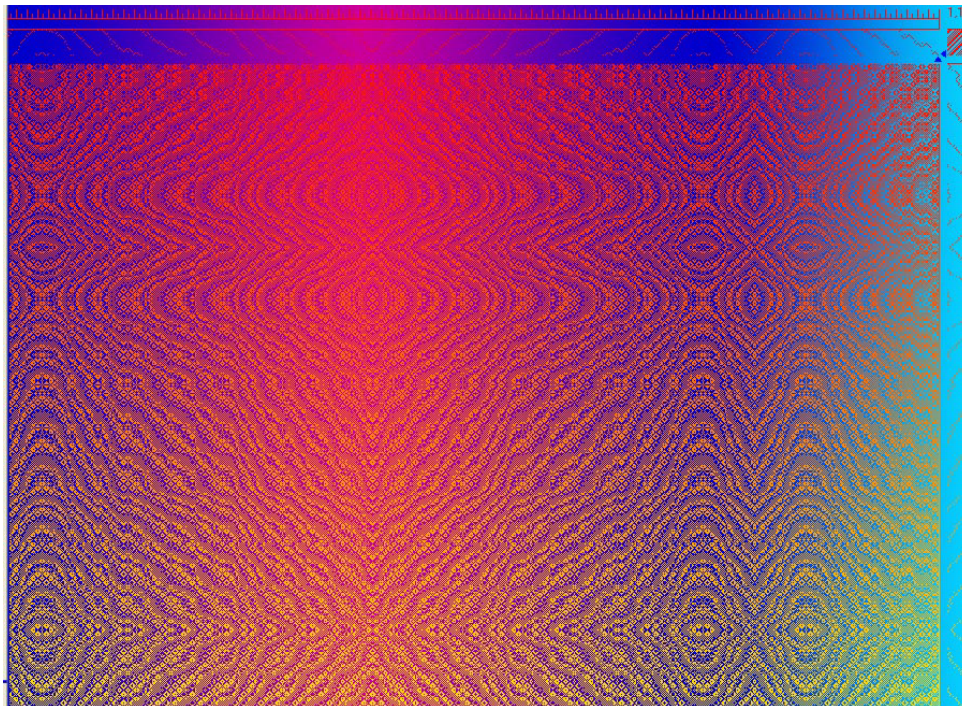
However, I planned to use graduated colors in the weft as well. What to do?



Back to Photoshop! First, I selected the layer with the screenshot/drawdown. Then I selected all the black pixels using the Magic Wand tool. I then switched to the Gradient tool, and applied a color gradient to the selected pixels, yielding this:



Now I could combine this image with the warp simulation to get the full effect:





Voila! A complex color simulation. And quite true to the "real" thing, my Ocean Sunset shawl:



This method, unfortunately, still does not allow for really satisfactory simulation of an entire piece, because of the need to cut and paste from a screenshot. If someone comes up with a simple method for handling this, I would love to know!