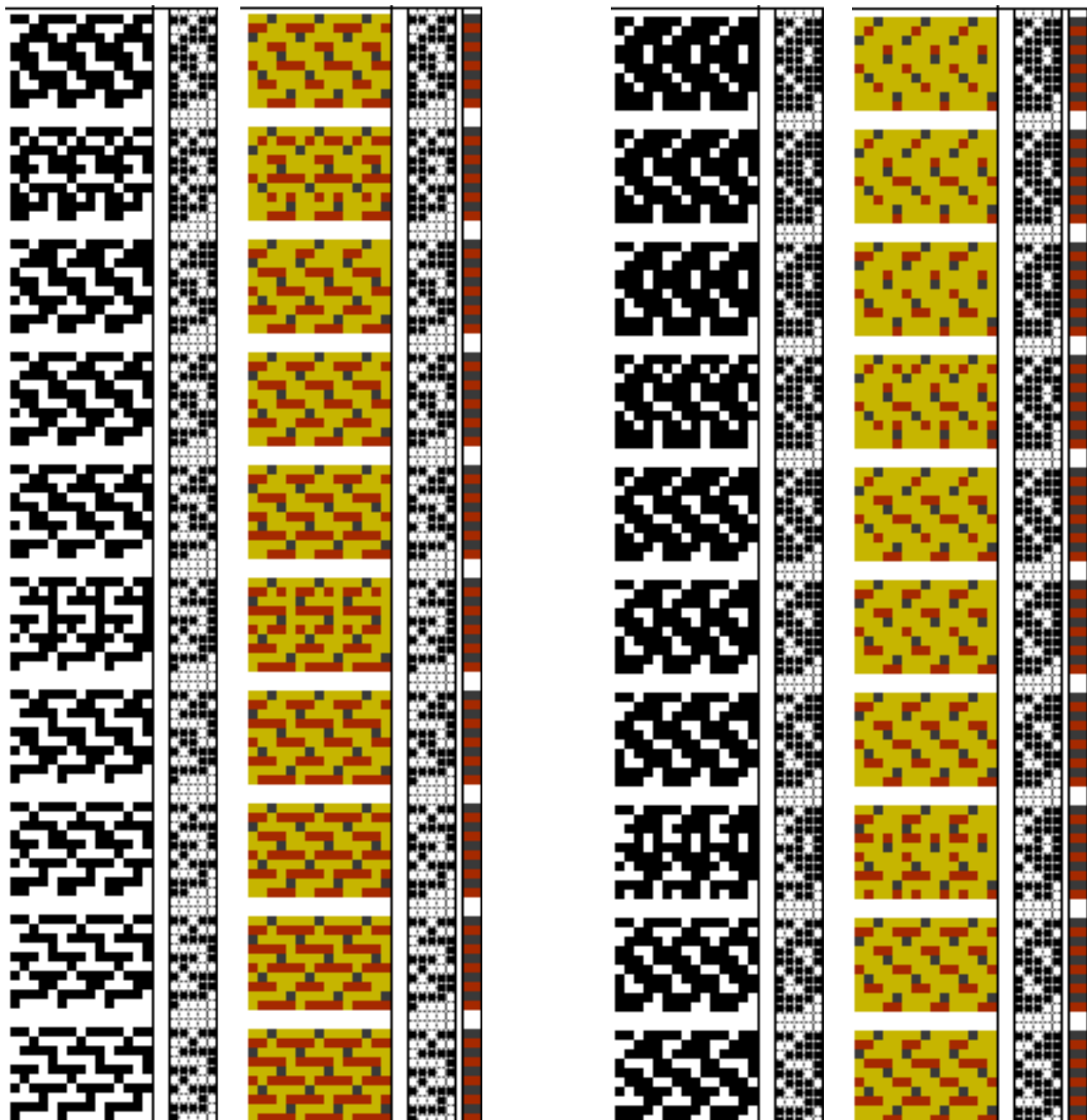
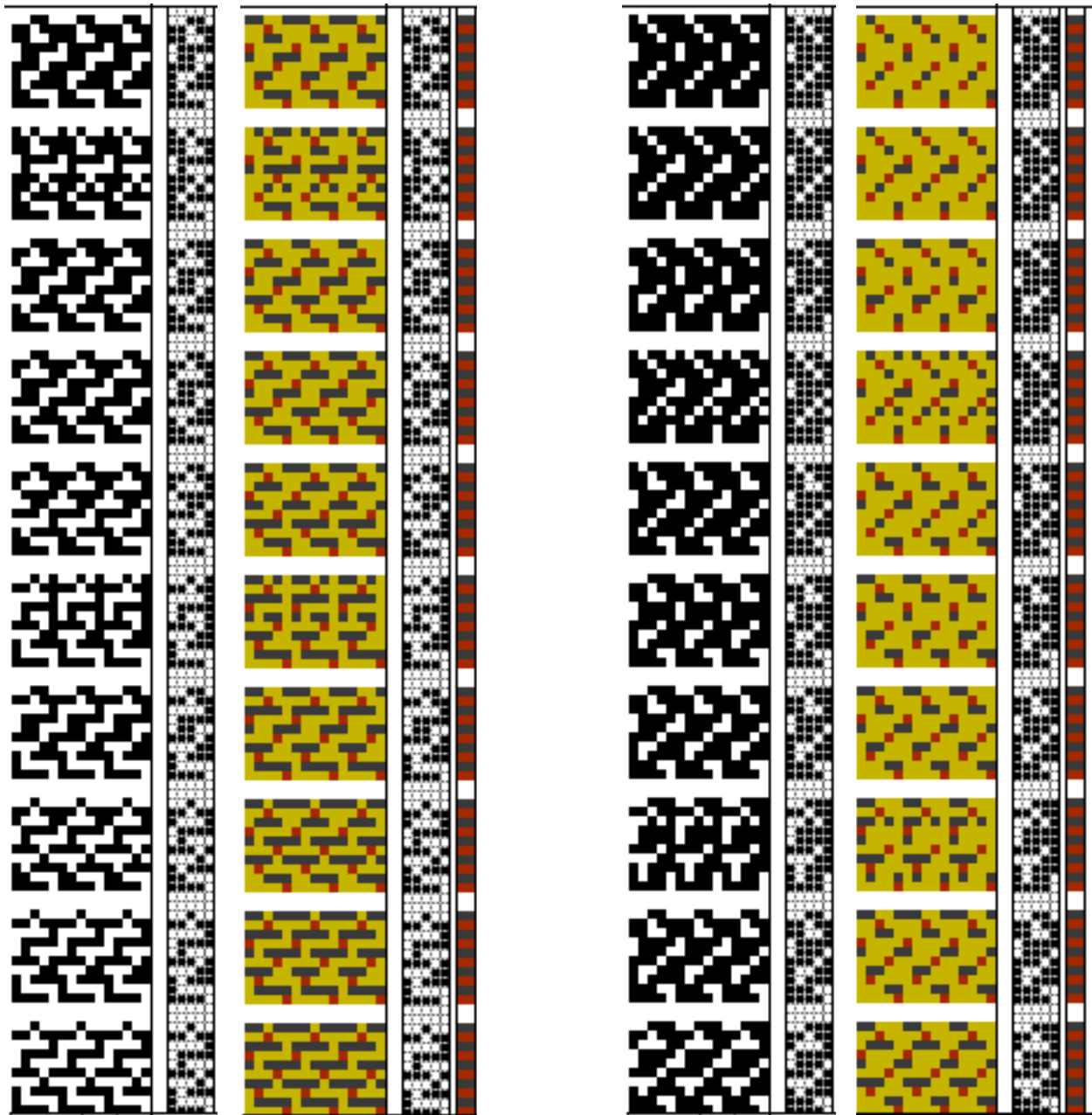


Optical Color Mixing with Satins of 5

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Since I have always been interested in subtle color relationships, I've been exploring ways to achieve them via weft-dominant weaves on my TC1 loom. Most recently, I've been using one warp color with two differently colored wefts to experiment with the 20-step gradation of 5-end satin tieups that Alice Schlein wrote about in the last *CADE Newsletter*. In my weaves, depending on which weft is to be more prominent, the other weft moves to the back of the fabric in a manner similar to that detailed by Vibeke Vestby in her recent *Complex Weavers Journal* article. Below are the weave drafts, adjacent to their resulting color effects, and an image of a section of the woven gradation studies. (The warp color in the actual fabric is a random mixture of various golds, and the wefts are light blue gray and light brown.)



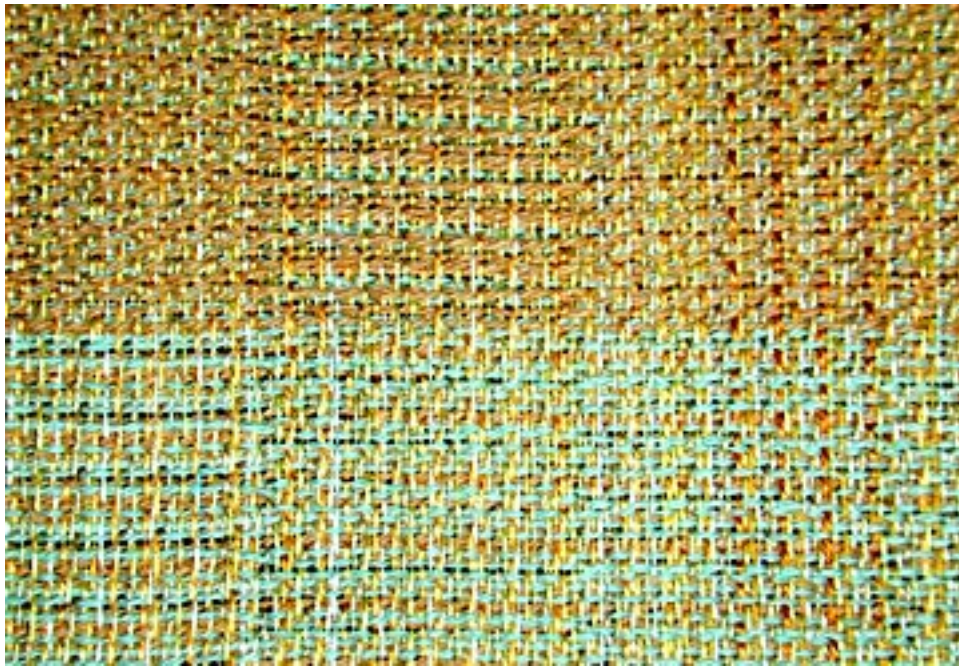


The weaves on page one all have the first weft woven on the face of the fabric, while the weaves on this page all have the second weft woven on the face of the fabric. As a result, the weaves on page one result in a gradation of the color of the first weft, in this case a dark salmon; while the weaves on this page result in a gradation of the color of the second weft, a dark gray. In actual weaving, the face wefts cover the back wefts somewhat, so that the face wefts have more impact on the optical color mixing than would seem to be the case in the weave drafts.

The color changes that result from choosing wefts having different value relationships, both with each other and with the warp, have turned out to be very interesting. Weft and warp colors that are closest in value blend best optically, just as color theory says they should. Weft colors that have stronger value contrast result in weaves that contrast somewhat more with each other, and the

warp color affects them somewhat less strongly when it is visible. Additionally, the textures that result from more and more of the warp becoming part of the face weave add more richness than occurs when only regular satin weaves are used to make a gradation of weaves.

I intend to use some of these weaves in my work with differential shrinkage, weaving them with silk wefts on the top layer of two-layer areas that will become dimensional when I shrink the completed fabric in a 30% lye solution. These color effects would, however, work just as well in block or network drafted weaves.



References:

Schlein, Alice. "Some Plaids Derived from 5-end Satin Blocks," *CADE Newsletter*, Volume 39, March 2002

Vestby, Vibeke. "Floral Designs," *Complex Weavers Journal*, September 2001, pp. 31-34

Tools:

Photoshop, Weavemaker One, JacqCAD, Pagemaker, TC1 Loom