

idea gallery

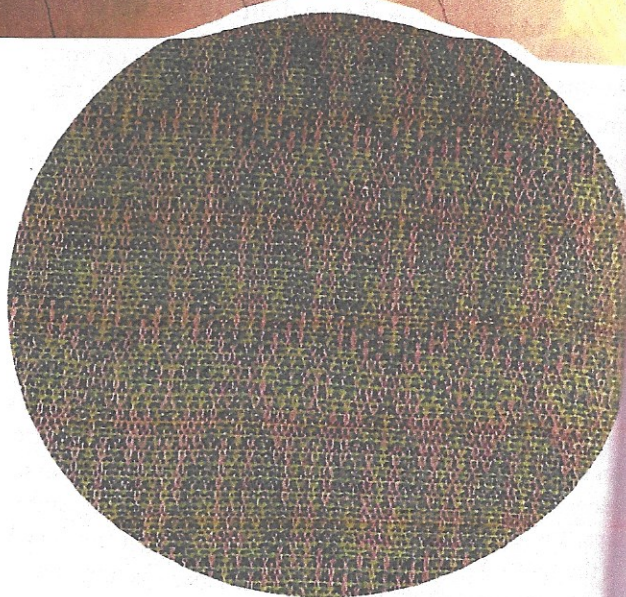
HIGH-TECH DRAFT DEVELOPMENT

BY JUDY TIPPLE

Judy's reupholstered chair with fabric to cover another chair. Below: Fabric detail.

IN 2017, I DECIDED TO CHALLENGE MYSELF to weave upholstery fabric to cover my dining room chairs. I had it all planned out. I would weave the fabric on my "big" loom, an eight-shaft Baby Wolf with a 26-inch weaving width, and my initial choices for a weave structure were four-shaft doubleweave or maybe overshot. That is, until I saw Elyse Rogers's article about weaving upholstery fabric in *Handwoven* (September/October 2015).

In her article, Elyse detailed her process for designing a lovely acorn motif upholstery fabric in summer and winter polychrome. The article mentioned that it was an eight-shaft project, and that project details—including a draft—could be found at online. I had found my draft and was on my way.



After reading everything in the magazine and online about Elyse's fabric, I realized I would need to adjust her draft to fit my situation. The first problem was easy to solve: Elyse's fabric had a 32-inch weaving width, and my loom's full width is 26 inches. Fortunately, it was simple enough to remove a few threading repeats to modify the 32-inch draft for my 26-inch loom.

The second problem was a bit more complex. My loom has 10 treadles, but the draft as printed uses 12. To solve this I drew on some high-tech resources including weaving software, an online program, an online weaving forum, and finally, an Excel spreadsheet—or maybe a few spreadsheets. I began by turning the printed draft into a WIF file using *pixeLoom* and was able to view the pattern, but that didn't solve the problem of not having enough treadles.

I turned to my fellow weavers in the 8-Shaft Weaving group on Facebook, and they advised me to go to Tim's Rudimentary Treadle Reducer. In my research I also found an article by Madelyn van der Hoogt from 2010 that explained what a skeleton tie-up is, which turned out to be valuable information for this project (see Resources).

I removed the tabby treadles from the original design and plugged the remaining 10-treadle tie-up into the Treadle Reducer, requesting a skeleton tie-up for 8 treadles. The program produced a new reduced tie-up and a grid showing which treadles needed to be combined to achieve the same effect as the original design.

Initially, I tried creating another WIF file with the skeleton tie-up, but my understanding of the features of weaving software was incomplete at the time, so I decided to try an Excel spreadsheet. I created a spreadsheet for the tie-up that made it easier for me to visualize the treadle numbers. The spreadsheet also showed the placement of the tabby treadles. I originally thought they should be on the outside treadles, but once I saw it all laid out, I decided to place one on the outside and one in the middle.

The treadling prompted me to develop yet another spreadsheet. The draft has a three-shuttle treadling with 2 pattern picks followed by a tabby pick for a total of 108 picks, or 36 groups of 3 picks. I constructed a chart that used the tie-up I had laid out in the first spreadsheet and applied the 3-pick sequence to it.

I was now ready to sample on a narrow warp. When I begin a new project, it takes about 10 inches of weaving to "get" the treadling sequence. While in that beginning stage, I used spreadsheet number two as my treadling guide but quickly found it too cumbersome, so I added a couple of columns to show the actual treadle combinations for each pick. I then made a few more adjustments to the tie-up, and I was able to "walk" the treadling with greater efficiency.

For the first sample, I used the colors that Elyse used to be sure my sequencing was correct and that I fully understood

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the pattern. I made some treadling errors that weren't easy to see on the loom because the draft as written weaves the design upside down. I looked back at the 12-treadle version and realized why Elyse had woven it that way; weaving it right side up meant lifting large numbers of shafts on many of the picks, making the treadling more difficult.

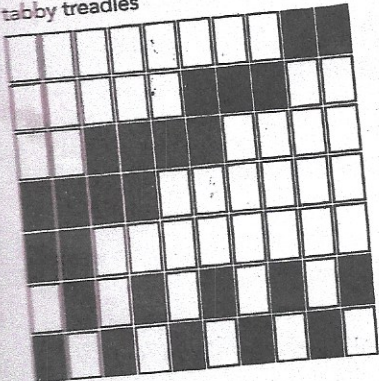
Because I was using two feet for the pattern picks, that wasn't an issue for me, so I went back to Tim's Treadle Reducer and generated a new tie-up with the tie-up inverted. Now I could see the right side of the fabric as I wove and better catch mistakes as I made them.



PHOTO BY JOE COCA

Elyse Roger's upholstery from *Handwoven Se* which was Judy's inspiration.

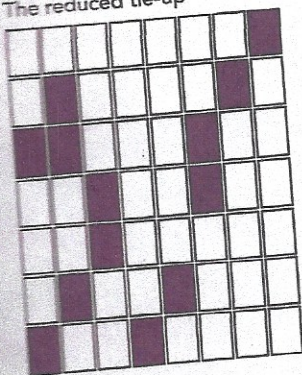
The original tie-up without the tabby treadles



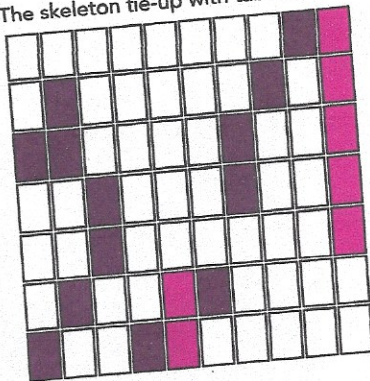
The treadles of the original tie-up and the reduced tie-up

Original	Reduced
1	3 + 4
2	3 + 5
3	4 + 6
4	5 + 6
5	1
6	2
7	4 + 7
8	5 + 7
9	4 + 8
10	5 + 8

The reduced tie-up



The skeleton tie-up with tabbies



With pattern and tie-up finally set, I began sampling for color. Although the first samples were lovely greens, they were not what I was looking for: that elusive spot between subtle and too subtle to see the design. For the look I was after, the pattern weft colors needed to be bright to ensure the design popped against the darker tabby and warp colors. As you can see, I sampled a lot, and in the end, I settled on a brown warp, two colors of green for pattern weft, and a dark brown tabby.

At last, the fabric was woven and ready to take to the upholsterer. It was backed with a fusible lining to strengthen the fabric for its ordeal of tugging.

Originally, I thought I could use dark green piping around the top of the seat, but the upholsterer suggested it wouldn't have the look he thought I was going for. We experimented for a bit, and he was right. Instead, he suggested that a thicker pillow under the fabric would allow a "box" of one repeat of the acorns and that I increase the pattern on each side of the acorn by about 1/4 inch for seam allowances for future chairs.

Although Elyse considered the motif to be acorns, when it's woven in my green and brown colorway, I see pine tree project, and when the design is inverted. As a result, I decided to be found at fabric "Pine Tree Upholstery Fabric." I haven't

PHOTO BY GEORGE BOE



Sampling for color became a project in itself as I searched for the right combination.

finished weaving fabric for all of the chairs, but my pine fabric will always remind me of my technological journey to adjust a draft.

RESOURCES

- ♦ Rogers, Elyse. "Adventures in Design: Weaving Upholstery Fabric." *Handwoven* September/October 2015, 23.
- ♦ www.cs.earlham.edu/~timm/treadle/
- ♦ www.interweave.com/article/weaving/acorn-upholstery-fabric-by-elyse-rogers/
- ♦ www.interweave.com/article/weaving/skeleton-tie-up/