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Extending a Draft

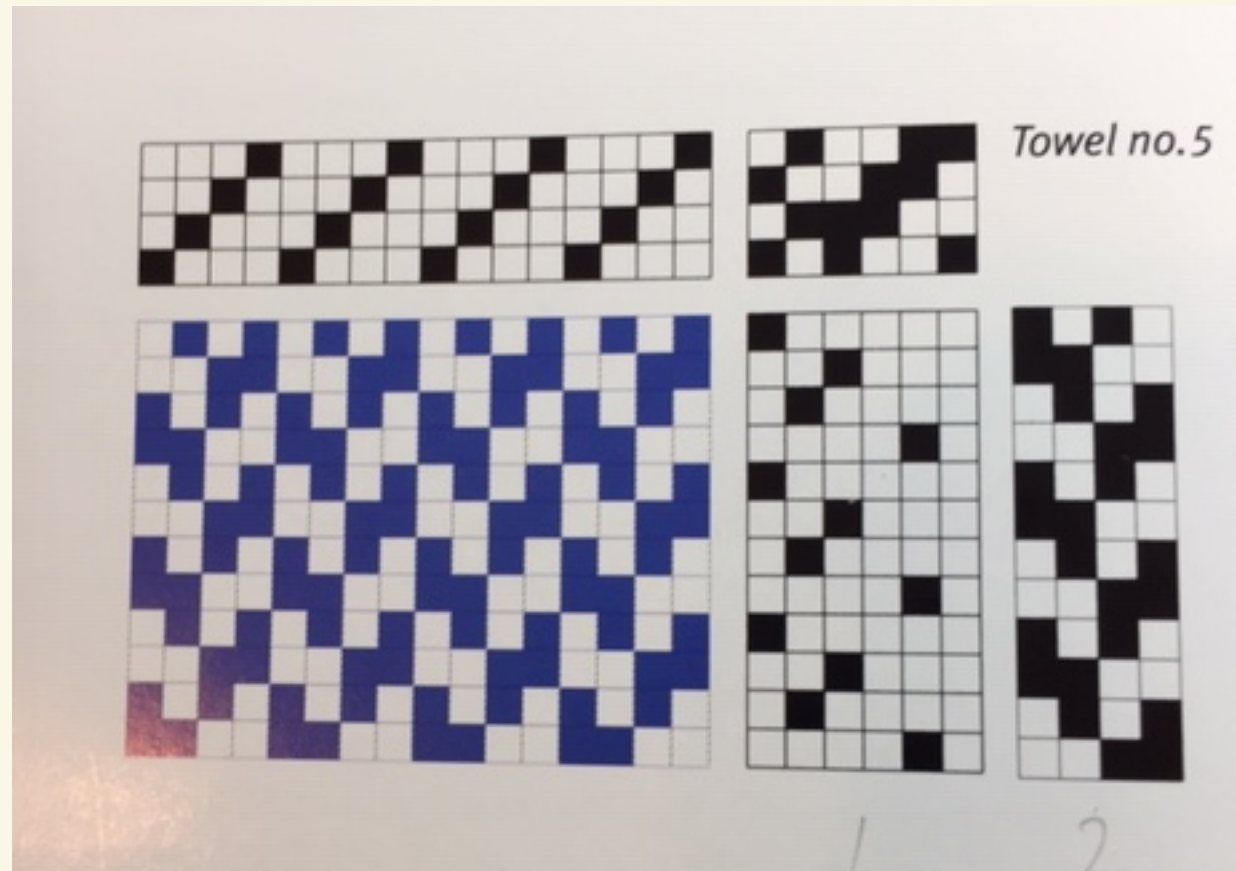
Moving From 4 Shafts to 8

Can I weave this with the current threading on my loom?

So I am wondering if I can use my straight threading 1-8 using this lift pattern ?

Also what is the difference between 1 and 2? (I don't have treadles).

This lift plan is from the Ashford book "Weaving Patterns from Four to Eight shafts".



02 Understanding the Draft

Step 1 - Getting oriented

I have labelled the parts of the draft on the image to the right.

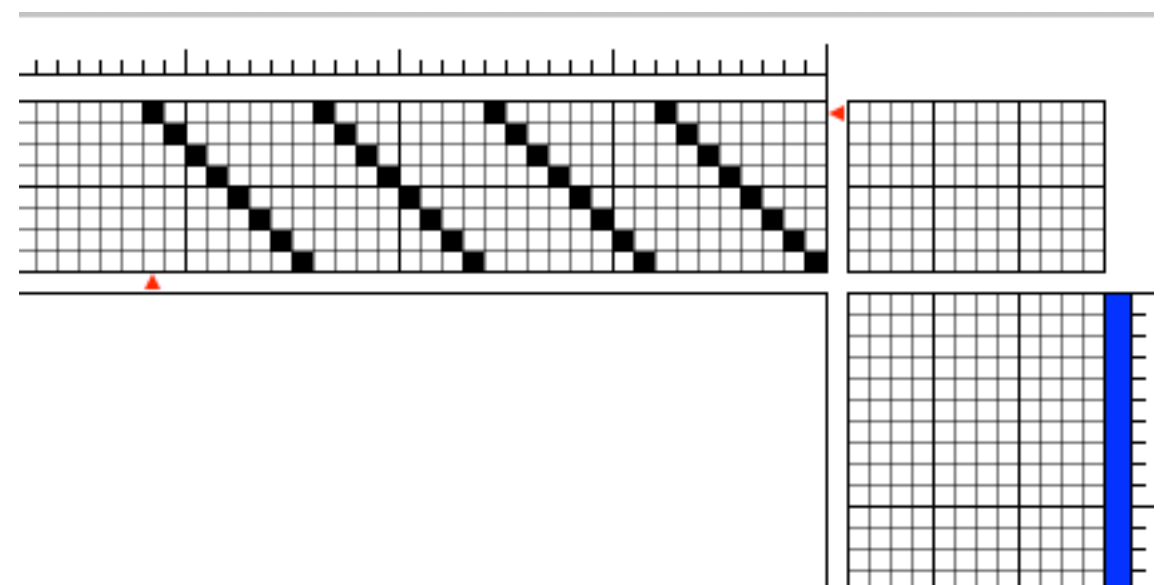
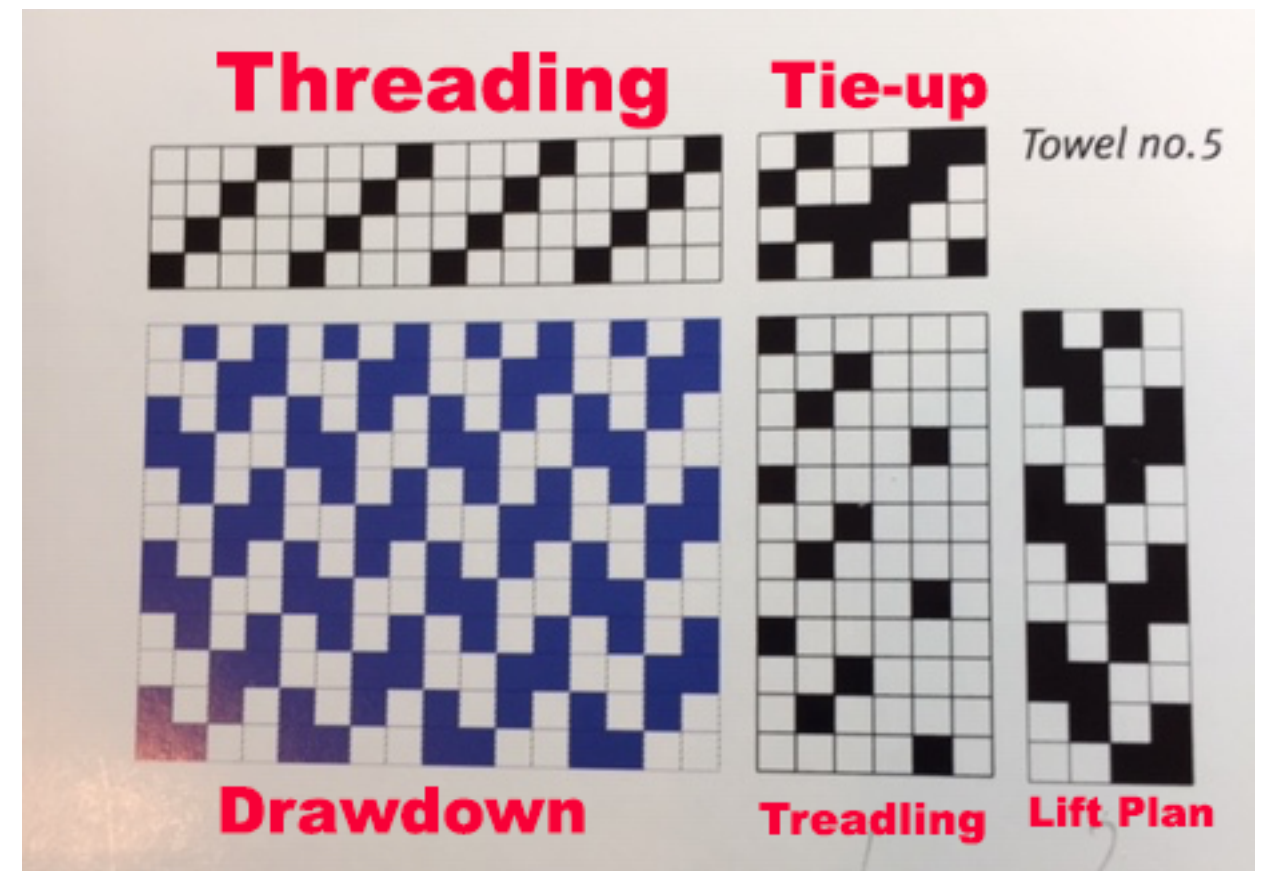
Threading is always on the top (either to the left or right of the tie-up) depending what part of the world you are from. Its longer than the tie-up because it has to show a full pattern repeat of the cloth. In this draft it is read from the right to the left. There is a “straight” threading on 4 shafts.

The Tie-up is on the upper right. We will decode that in a moment

This draft has both a treadingling and a lift plan sequence displayed on the lower right.

The cloth drawdown is displayed in blue on the lower left side of the image.

The weaver asking the question stated they have a straight threading on shafts 1 through 8. Compare the threading on the top to the one the weaver describes below. What are the differences?



03 Examine the Tie-up

The first two shafts in the tie-up

In this tie-up the first two shaft have been set up to permit a plain weave, they are set to lift every other thread in the draft. This tells me that the tie-up on the loom is set for a pattern weave and a ground weave.

The plain weave is the ground weave - the background fabric.

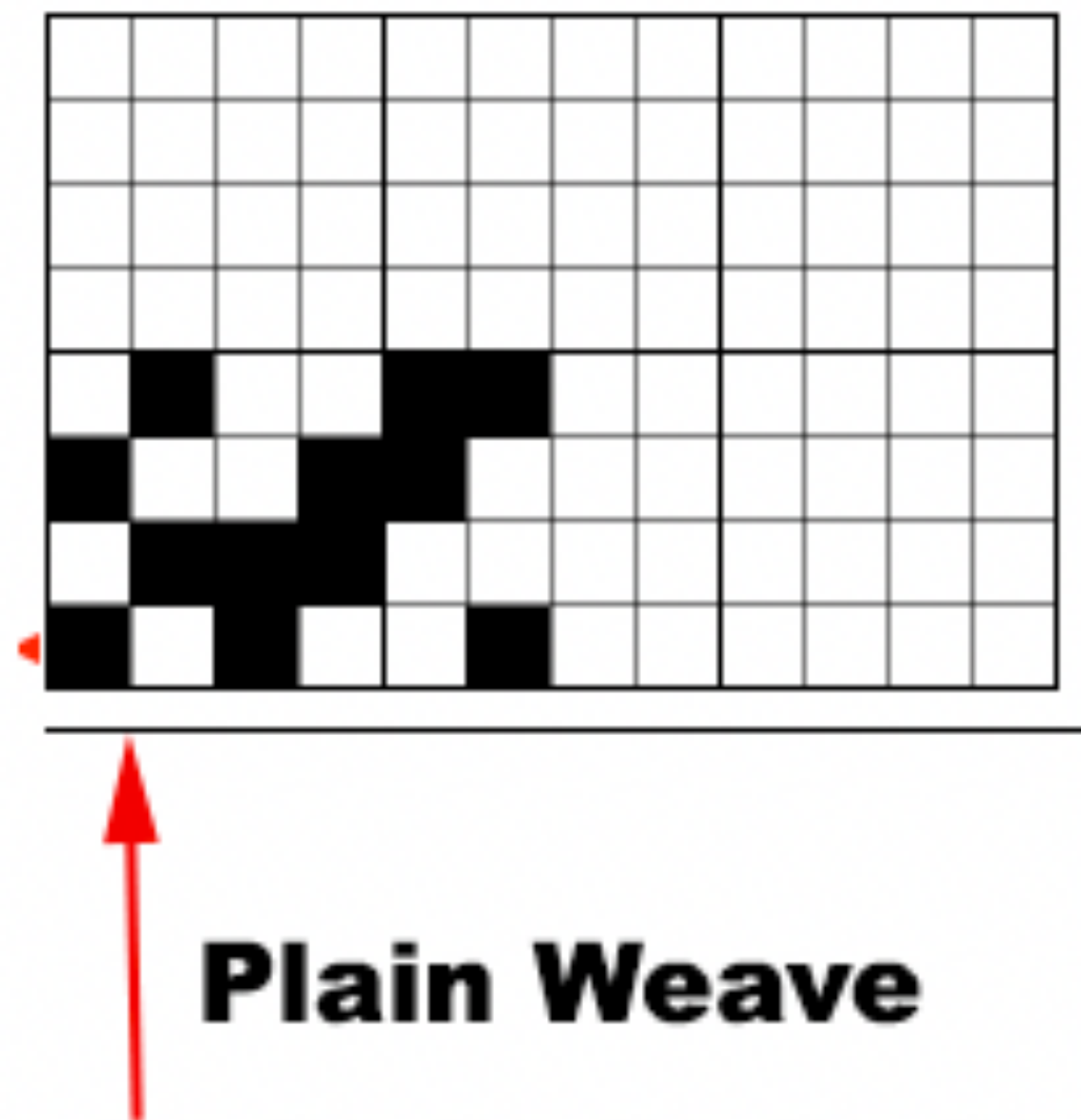
What are the rest of the shafts doing?

The tie up is showing a diagonal line from lower left to upper right. What kinds of structures you know about have a diagonal line?

Twills, and overshoot which is a relative of the twill structure has two shafts on each treadle as well.

The twill diagonal in the tie-up is a balanced twill two over and two under.

We still don't know enough to determine what is happening time to look at the treadling.



04 Review the Treadling

Identify the pattern of the Tabby

I mentioned earlier that the plain weave (tabby) is on the first two treadles of the tie-up. Look at how they are used.

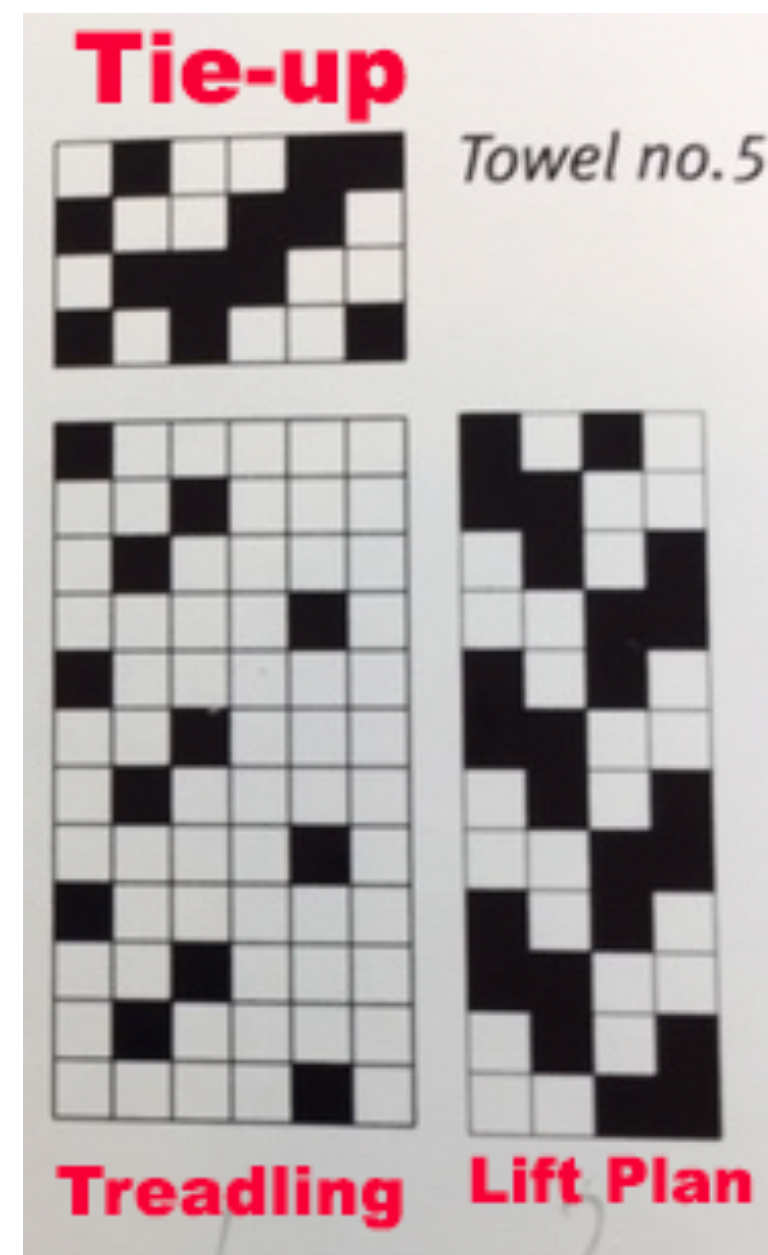
There is a single treadle between each tabby shot. The thread pressed is on either the 1 pattern shaft set and the 3rd pattern shaft. And it is alternating just like the plain weave.

How did I know the lift plan was the other item in the draft?

Once I knew that the tabby is tied-up on the first two treadles I can compare it to the drawing on the far right. It is lifting shafts 1 and 3, this matched the shafts to be lifted by treadle 1 in the tie-up, does the second row match the same treadles in the tie-up? Is so then you can logically conclude this is a lift plan for a table loom or a dobby.

Does the lift plan tell me something I can not see from the tie-up, yes, the lift plan is showing me an even twill line. There are no long floats.

But I mentioned before that there could be a ground weave and a pattern weave, I need to look at the colors of the weft threads to see if that is what is happening here.



05 Review the colors used in the weft threads

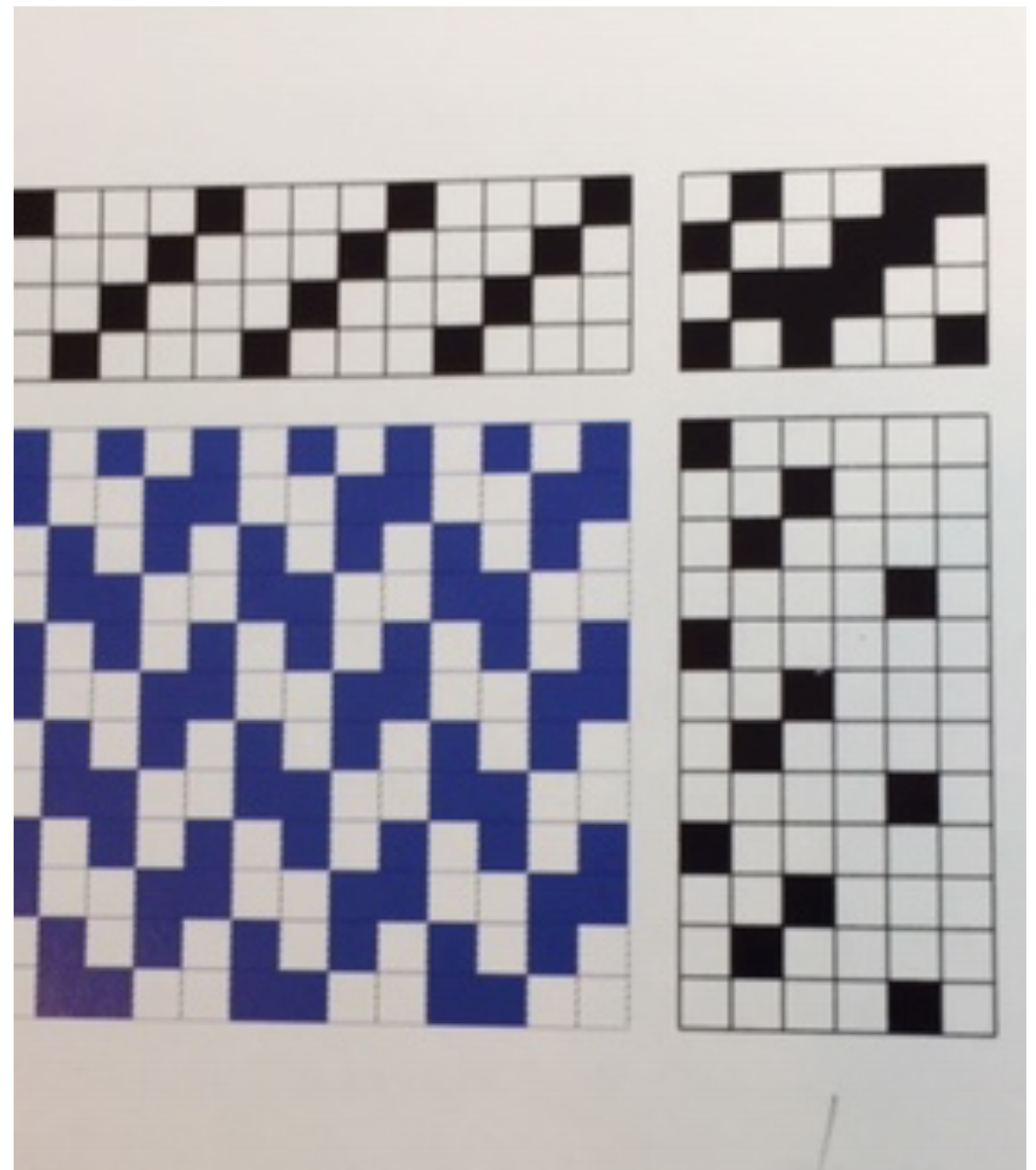
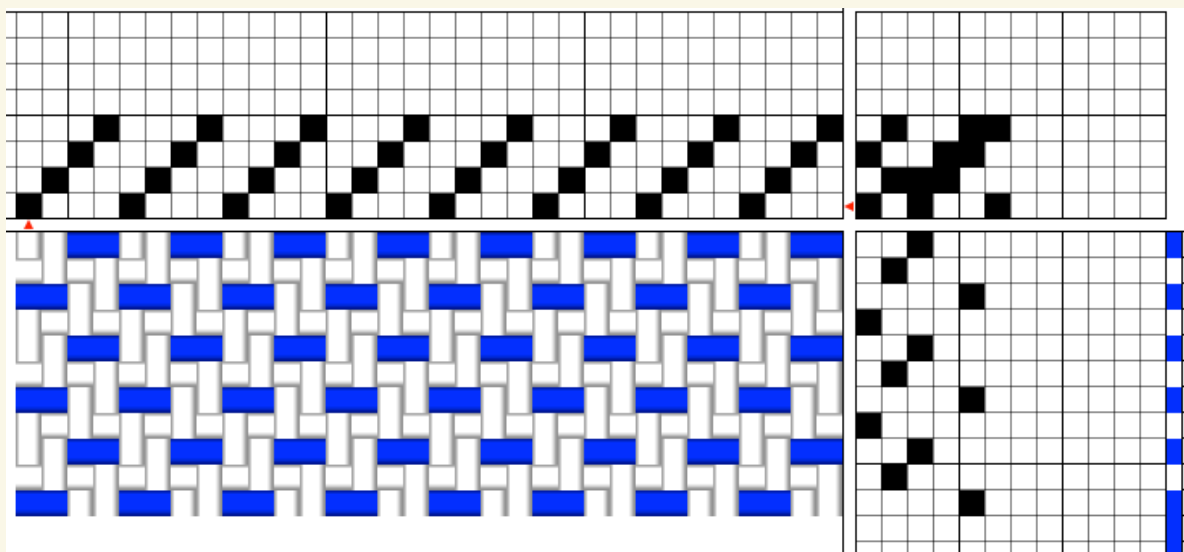
Where do I find the color information?

In this particular draft the only color information is to be found in the drawdown section of the draft. There are blue threads and white threads. I see no white lines or all blue lines.

Logically I will make the following assumption for analysis purposes. The warp threads are white, and the weft threads are blue.

The pattern threads structure is being used as a twill rather than as an overshoot. If the pattern threads were being used as a separate structure usually they will have a different color than the ground threads.

Take a look at the draft below: Can you spot the difference?



What is happening as I weave?

On pass 1, treadle 1 50% of the threads are lifted (shafts 1 & 3)

On pass 2, treadle 3 50% of the threads are lifted (shafts 1 & 2)

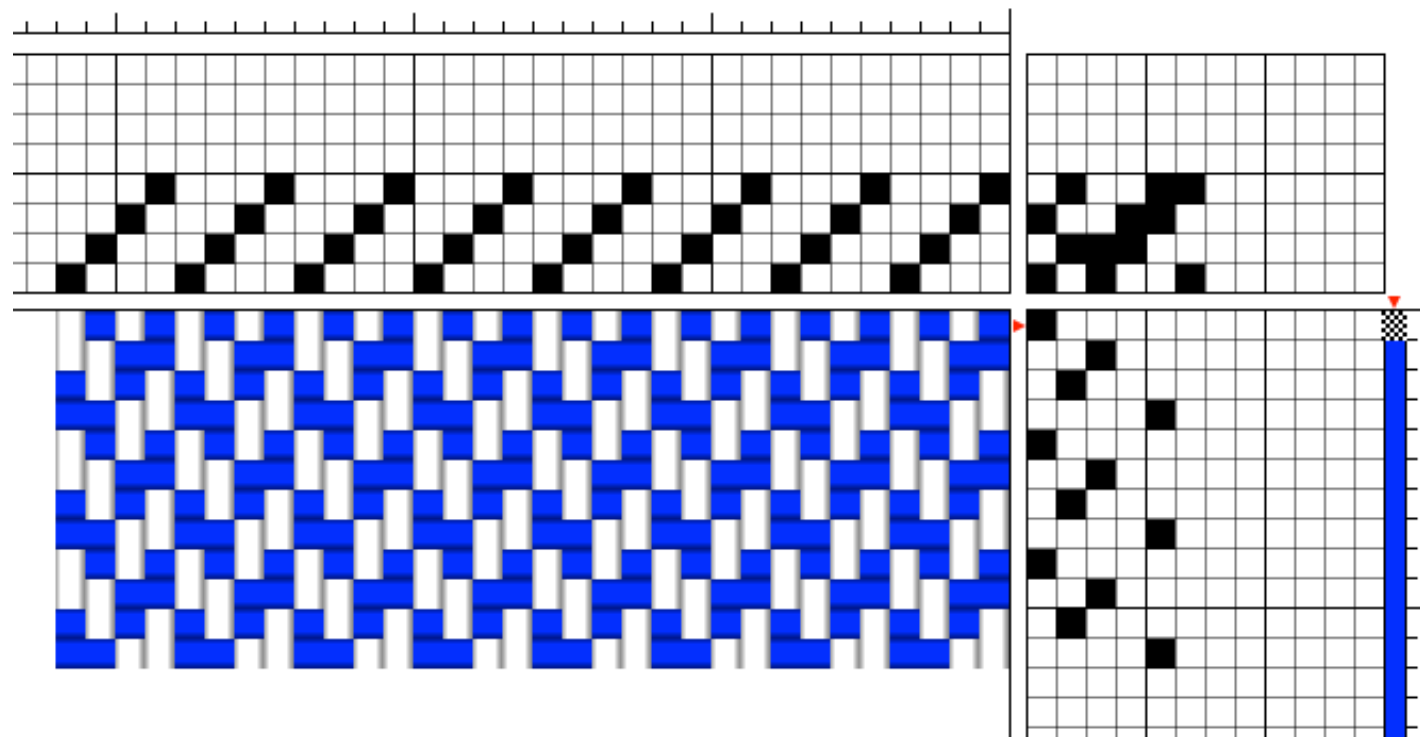
On pass 3, treadle 2 50% of the threads are lifted (shafts 2 & 4)

On pass 4, treadle 5 50% of the threads are lifted (shafts 3 & 4)

This is a balanced crepey weave. There are blurred twill lines and the twill lines should not be very prominent even after wet finishing.

The treadling in the draft is a universal tie-up for overshoot on 4 shaft looms this has been done likely to save the weaver steps. Reusing a tie means the weave does not have to go under the loom to change the treadles.

Our weaver has stated they are using a table loom and so are not using the tie-up but rather are using the lift plan. Note that the lift plan looks very much like the drawdown in this case. (Flip back two pages to see the lift plan again.)



07 Beginning to Answer the 8 Shaft Question

Change the threading

For the sake of illustration, I will change only one item in the draft at a time.

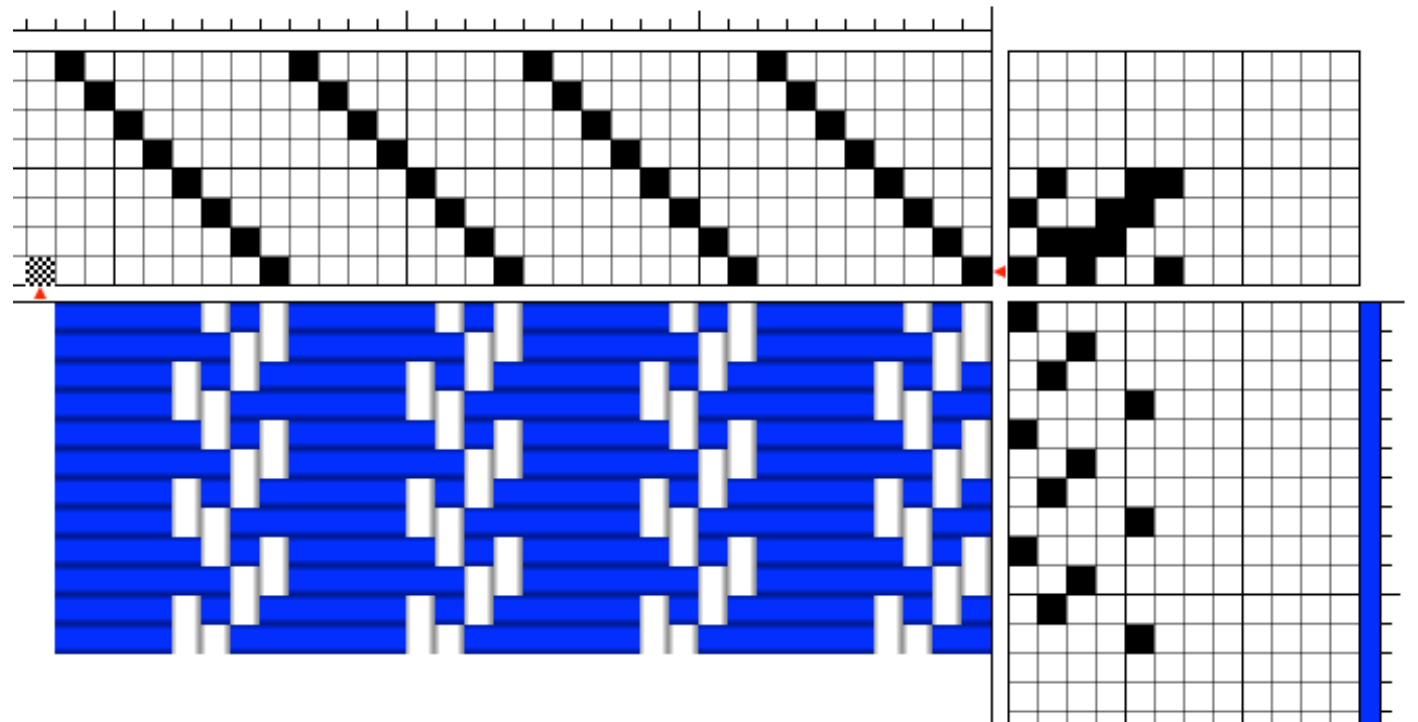
I modified the threading to be a straight threading from 1-8.

How has the drawdown changed?

There are now stripes in the fabric, and longer floats.

Is this fabric still usable?

If I wanted the fabric to be the same as the one I had on a four shaft draft, what do I need to change?



08 Extending the Tie-up to Handle Extra Shafts

Add the tabby tie-up to shafts 5-8

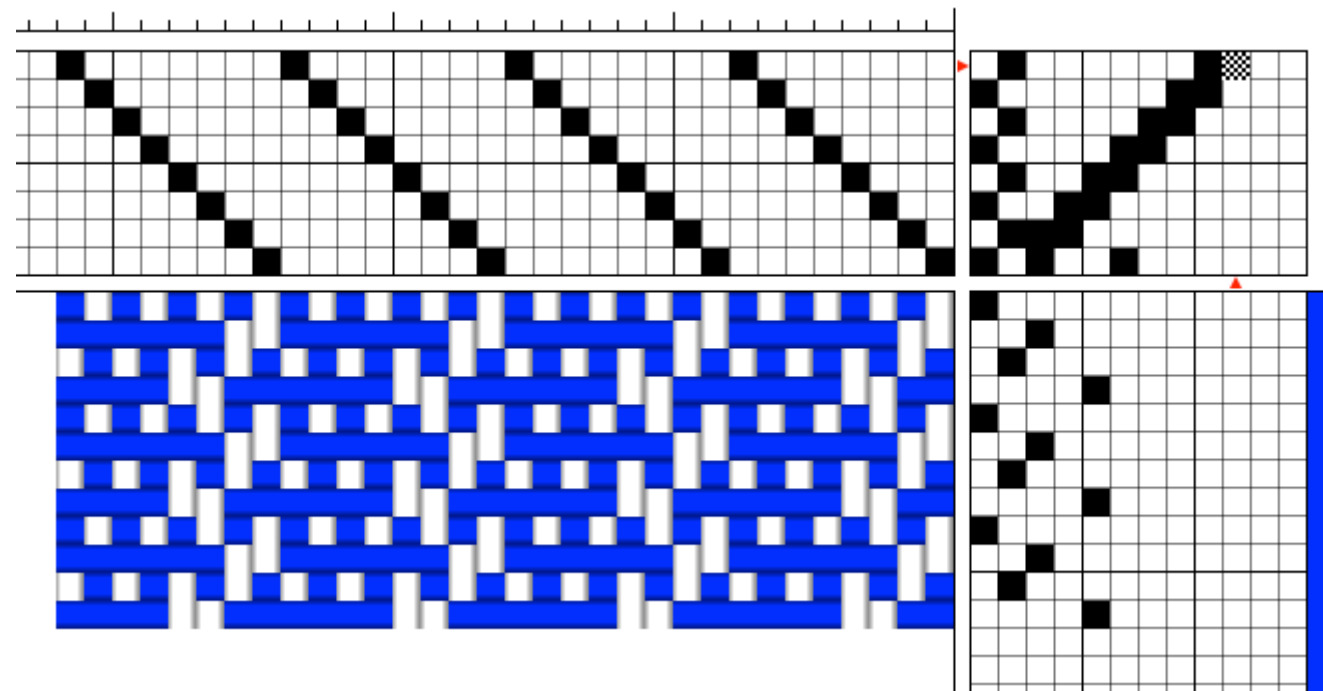
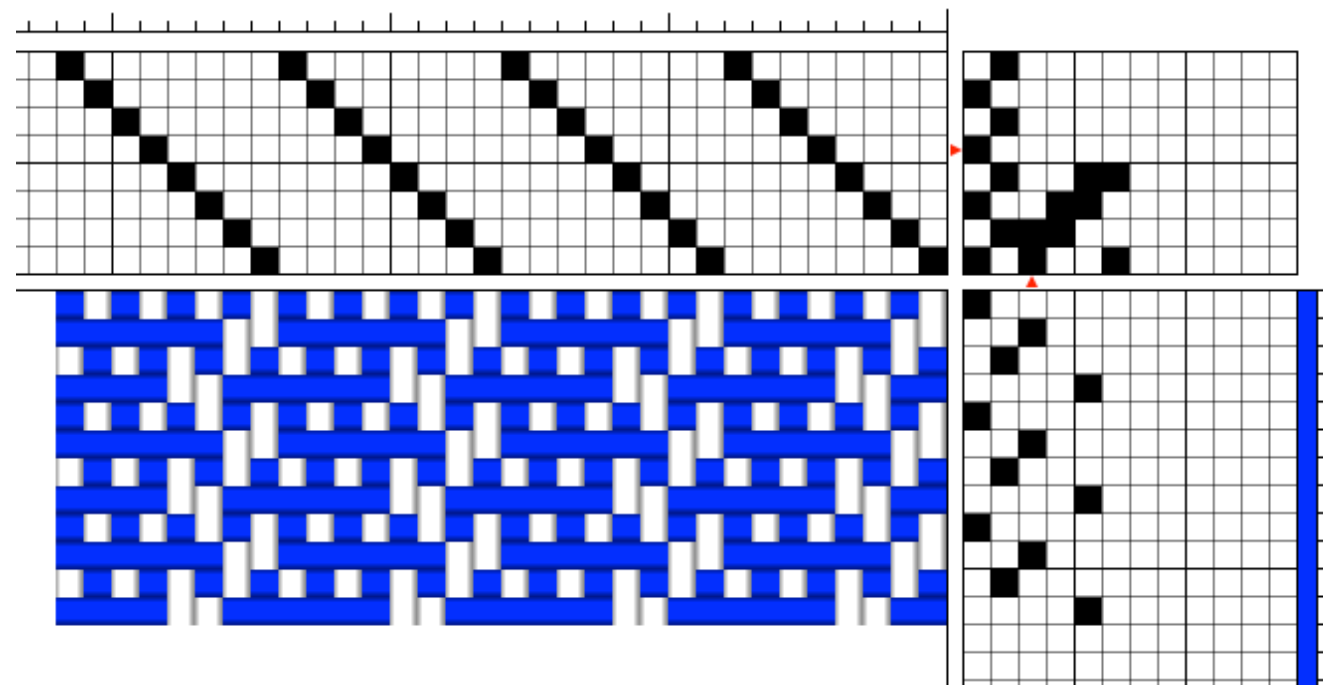
Follow the same pattern as treadle 1 and 2 for shafts 5 through 8. This will cause the tabby weave to appear on all the threads of the loom with the use of two treadles.

Notice how the stripes have taken on a half tone look. You have a tabby background in two colors and a vertical stripe in more white than blue.

We don't quite look like the original draft yet, something has to be done with the pattern side of the tie-up. What do you think that should be?

What happens if I extend the diagonal twill line in the tie-up? See lower right image.

Does this solve our problem? Why or why not?



09 The Answer

The tie up needs duplication not extension.

Extending the line will cause the weave to need more treadles. If the same treadling sequence were duplicated on shafts 5-8 the same cloth can be woven on an 8 shaft loom using a straight threading sequence.

Since this user is using a table loom, the change is minor, and additional set of shaft will be lifted on each pass of the shuttle. If I were using a floor loom, I would need to go under the loom and change the tie-up before weaving.

