

PATTERNS IN 1:2 TWILL

ON FOUR SHAFTS

This is a sequence to the former article about Dimity. But this time our patterns are going to be of the same class as Summer-&-Winter, or Crackle, i.e. large blocks with short floats.

The 1:2 twill seems to be a still better pattern weave than Crackle because it has shorter floats. Here the pattern weft goes over 2 and under 1, or over 1 and under two, as against 1:3 for Crackle, and 2:2 for diamond twill. But... it has no tabby binder. It has a binder of a sort, but it is not as firm as tabby. All in all this weave will be about as firm as Crackle or S-&-W, but with shorter pattern floats. Thus at least in theory it should be a better weave for upholstery, where the average strength of the fabric does not count, because the weakest part are always the floats.

This is theory. How would it work in practice it is hard to tell for the simple reason that so far we could not discover any reference to this technique in any weaving literature. We do not know even how to call it. This is then an open field for those who like research.

We have here as in crackle 4 units of threading, and also we have incidentals between units, or rather between blocks of pattern. But the units are different when the diagonal in a pattern goes up, from units when the diagonal goes down. In all we shall have the following 8 units:

	Unit 1: 124, incidental between unit 1 and 2: 1;
going up:	" 2: 231, - - - - 2 - 3: 2;
	" 3: 342, - - - - 3 - 4: 3;
	" 4: 413, - - - - 4 - 1: 4;
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	Unit 4: 314, incidental between unit 4 and 3: 3;
going down:	" 3: 243, - - - - 3 - 2: 2;
	" 2: 132, - - - - 2 - 1: 1;
	" 1: 421, - - - - 1 - 4: 4;

Whenever we reverse the pattern there are no incidentals, simply the repetition of the reversed unit. This sounds complicated and so it is. In practice it looks as follows. Supposing that we have a profile

$$\begin{array}{cccccccc}
 & & mm & mm & & & & \\
 mmm & mmm & & mmm & mmm & & & \\
 & mm & & & & & & \\
 & & mm & & & & &
 \end{array}
 \quad \text{or} \quad
 \begin{array}{cccccccc}
 & & & & 44 & 44 & & \\
 & & 3333 & & & & 3333 & \\
 222 & & & & & & & 222 \\
 & & & & & 11 & &
 \end{array}$$

Pattern weft on treadles: 6,5,4,3; binder on 2 and 1.

2. Pattern with half-tones like overshoot. Any 4-block pattern can be used. Warp set as in 1. Treadling: 1-st block - 6251; 2-nd - 5241; 3-rd - 4231; 4-th - 3261.

3. Pattern as in 2. Treadling: woven-as-drawn-in. For instance in case of draft on page 11: 613613613526526 etc. This fabric is rather unusual, because the blocks of pattern are woven in 2:1 twill, but the ground has long floats in warp. Since these floats appear only on one side of the fabric they can be disregarded in case of upholstery, or they can be cut down with an occasional shot of very fine binder on treadles 1 or 2.

4. Bound weave. Here the warp must be set very far apart, and the only treadling possible is 3456 or 3546. This should produce extremely firm flat rugs, not unlike rugs made in bound crackle but much stronger. Two, three, or four colours may be used. If we call these colours: A,B,C,D the treadling for the 1-st block will be: 3A 5C 4B 6D; 2-nd - 3B 5D 4C 6A; 3-rd - 3C 5A 4D 6B; 4-th - 3D 5B 4A 6C.

5. Texture. Here any accidental treadling could be used if properly planned. But to avoid long floats in warp we can start with such treadlings as: 62514231; 62416231; 14265456; etc. Also any threading draft will do, as long as it is based on the units of threading and the incidentals in the table on page 10. In each case a complete draw-down should be made.

Regardless of how interesting this weave is, it should be approached with caution, and before trying a large project it would be advisable to experiment on a small warp.

WE APOLOGISE FOR THIS ISSUE BEING MAILED RATHER LATE, BUT THE EXPERIMENTS WE WERE MAKING WITH "PATTERNS IN 1:2 TWILL" TOOK LONGER THAN WE EXPECTED. THE COMING (NOVEMBER) ISSUE WILL BE ON TIME, AND IT WILL CONTAIN A RATHER SENSATIONAL ARTICLE ABOUT SIX-BLOCK MODERNISED OVERSHOT WOVEN ON ONLY FOUR SHAFTS.

