

# SWATCH PAGE

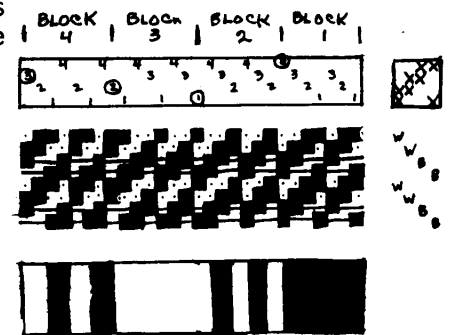
## PETER COLLINGWOOD'S SHAFT SWITCHING TECHNIQUE, PART 2

by Paul O'Connor

In the previous article, I outlined the principles of shaft or harness switching and described an inexpensive way to modify a jack type loom to achieve this method of gaining a great deal of freedom in design of rugs. In this article I want to analyze the very beautiful rug that is shown as the frontispiece in Collingwood's book *The Techniques of rug Weaving*. Check pages 324-328 in that book for information on weaving the rug.

Collingwood describes the draft used as a straight three shaft draft, with a "linking" thread to join blocks. This is most easily seen by looking at the draft diagram in the first figure. Notice there are four blocks and each block can be as long as desired. The linking threads that join the blocks are circled in the draft. A twill tieup and treadling order is used. If two colors are used in

the weft sequence in the order A,A,B,B, then four different weft faced drawdowns can result, depending on which treadle you start with. (Only one example will be discussed in this article. Consult Collingwood's book for all the variations).



In figure 1, there are two drawdowns. The first is an expanded view showing the weave structure. Below that is the appearance when the wefts are packed to cover the warp completely. Block 1 will be solid black, block 3 will be solid white, and blocks 2 and 4 will have vertical black and white stripes. Now to the shaft switching.

If the threads on **harness 1** in **block 1** could be shifted to harness 4, then block 1 would weave the same as block 2. This can be achieved by using a floating warp between empty heddles on harnesses 1 and 4. Two doups through these heddles circle the floating warp and the weaver can choose whether to have the floating warp weave as though it were threaded on harness 1 or on harness 4. So the appearance of this section can be either solid black or vertical black and white stripes. The same sort of relationship exists for each pair of adjacent blocks.

To change	Switch warp threads on
block 1 to block 2	harness 1 to harness 4
block 2 to block 1	harness 4 to harness 1
block 2 to block 3	harness 2 to harness 1
block 3 to block 2	harness 1 to harness 2
block 3 to block 4	harness 3 to harness 2
block 4 to block 3	harness 2 to harness 3
block 4 to block 1	harness 4 to harness 3
block 1 to block 4	harness 3 to harness 4

Obviously this takes a certain amount of planning but isn't that part of the fun of weaving?

