Interleaving Weave Structures with *Swiftweave*, Part II

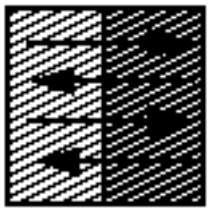
------ Pat Williams

In a previous article, I discussed using *Swiftweave 4.05* to assist in weaving pieces with compositional areas differentiated by changes in weave structure. In this article, I will discuss a way of working with more complex compositions in which more areas need differentiation and, therefore, more treadling changes need to be interleaved for each full shot of weft.

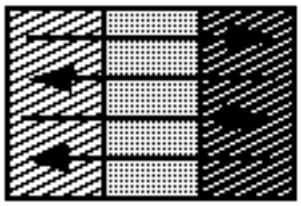
To begin (as discussed in the previous article), analyze the composition to determine the number of weave structures needed in each of its sections, and then decide which weave structures to use. In preparing to interleave several weave structures, it is important to choose those which either have the same number of treadles in their treadling sequence, or which can be made equal in length by repeating sequences the number of times needed. For example, weave structures with 4-shot, 5-shot and 20-shot treadling sequences can be used together because they can be made equal in length by repeating the shorter sequences; 4-shot, 7-shot and 23-shot sequences cannot easily be used together.

Next, begin to figure out the correct combinations of treadle sequence interleaving. Just as the weft goes back and forth, left to right and then right to left, so must the treadling sequence of each weave structure being used. In order to allow for weft turnaround, it is necessary to interleave two picks per structure at each edge of the weaving with one pick per structure in the internal portions of the composition. Because only two sets of treadling sequences can be interleaved at one time with *Swiftweave*, breaking this more complex process of interleaving into several steps makes it possible to keep things straight, at least most of the time.

Illustrations A and B show the procedures for interleaving two and three structures, respectively. (These procedures were discussed in some detail in the previous article.) Because the two picks

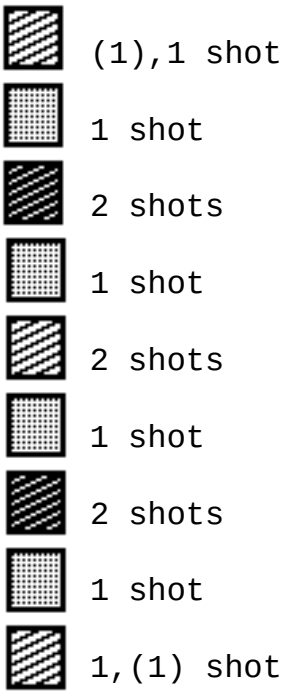


A.



B.

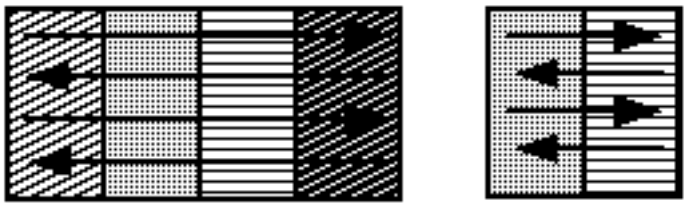
Interleave 1 shot of  between each 2 shots of A., as shown in the illustration to the right.



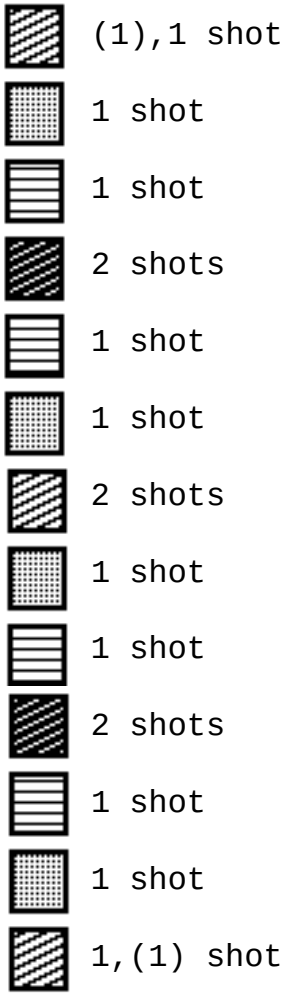
indicated for the outer edges of the weaving result from turning the weft around to go back in the other direction with a second shot of the structure just woven, omit the first and last shot of a sequence when beginning or ending the weaving in a particular section. If you do not omit the first shot when beginning to weave a section at an edge of the weaving, or the last shot when ending a section at an edge, you will offset the entire treadling sequence for that section and get very unexpected results.

By combining basic interleaving procedures in different ways, it is possible, with some patience and care, to interleave any number of weave structures. Illustration C shows how to interleave four weave structures based on variations of procedure A. Illustration D shows how to interleave five weave structures, based on variations of procedures A and B. Similarly, by combining procedures A and C, you can interleave six weave structures; by combining procedures A and D, you can interleave seven weave structures, etc., etc.

When you switch from weaving one section of a composition to another, it is important to resume weaving at the correct shot of each weave structure being continued from the first section to the second. This is relatively easy to do if the treadling sequences being used are relatively short, but it becomes more difficult with extended treadling sequences. I have sometimes found it necessary to print the treadling sequences for each section in order to locate



c.



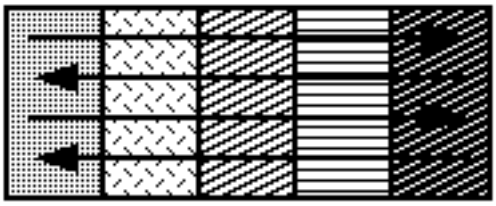
Step 1. Interleave 2 shots of  with 2 shots of 

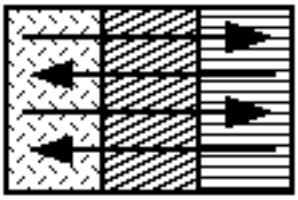
Step 2. Interleave 2 shots of  with 2 shots of 

Step 3. Interleave 1 shot of  and 1 shot of  between each 2 shots of Step 1., as shown in the illustration to the right

the correct shot with which to resume weaving.

The interleaving method described above makes it possible to weave relatively complex combinations of weave structures. There are limits, however, to what can be done using this method, primarily because it is very easy to get lost, both in the midst of setting up the treadle interleaving as well as in executing weave structures correctly when moving from one section to another in the composition. Perhaps a new capability in the just-now-available *Swiftweave 5.0,* which allows you to mark threads, will assist in keeping things straight. In the meantime, use of discontinuous wefts makes it possible to differentiate more compositional areas than seem feasible using interleaving, as does dividing a composition into smaller sections and weaving them separately.





D.

Step 1. Interleave 2 shots of  with 2 shots of 

Step 2. Interleave 1 shot of  with each 2 shots of Step 1.

Step 3. Interleave 2 shots of  with 2 shots of 

Step 4. Interleave 2 shots of Step 3. with 3 shots of Step 2., as shown in the illustration to the far right.