Bronson Lace (Lace Bronson, Atwater-Bronson Lace)

Emery Classification

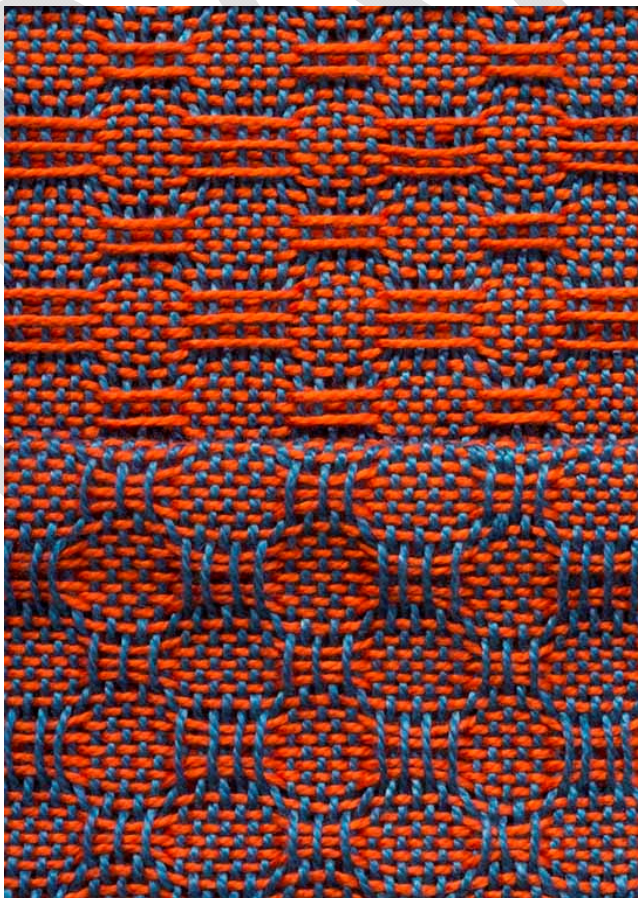
Simple Weave: two elements (one warp, one weft). **Rectangular Float Weave Derived from Plain Weave.**

Weaving Category

Unit weave; the blocks of a unit weave can be treadled together in any combination, as long as they are the same type, weft floats or warp floats. Not in the same category as Spot Bronson (see entry), even though they share having every other thread on shaft 1.

Fabric Characteristics

Below is a fabric sample of Bronson Lace.



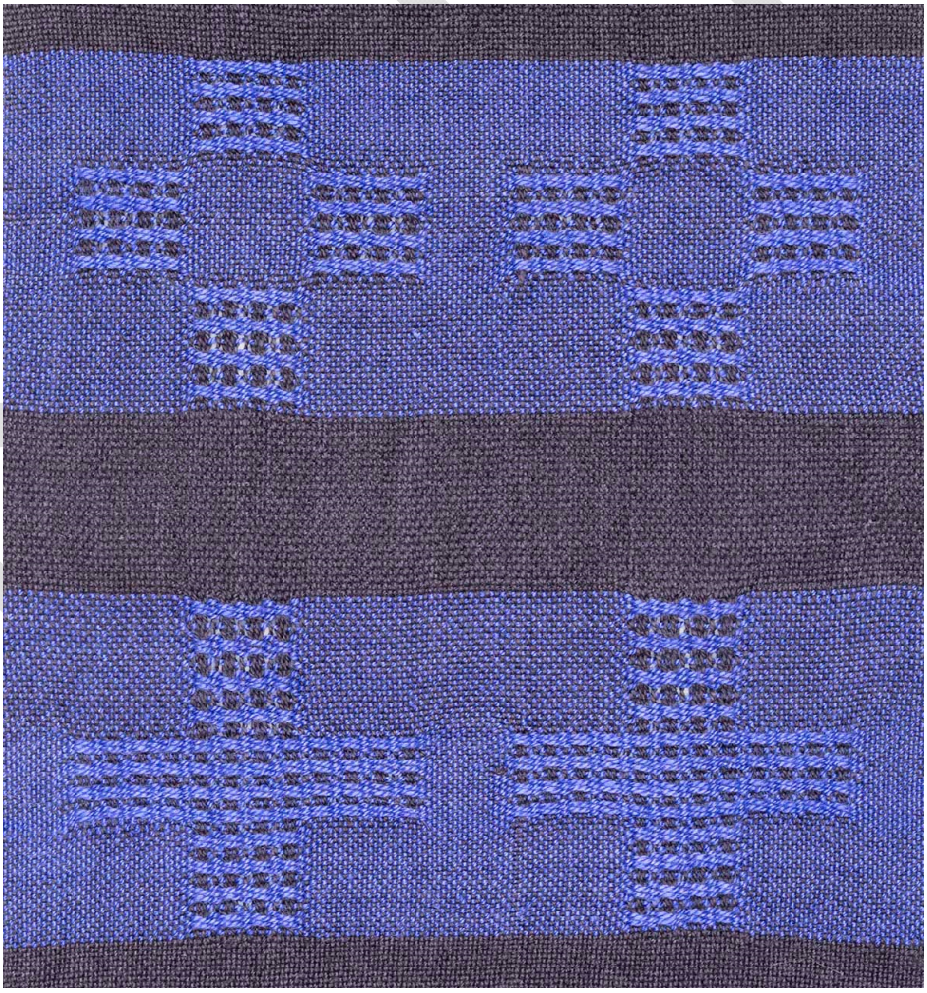
1 Bronson Lace

Blocks are formed with weft floats or warp floats. They can be woven on the same side of the cloth. A block with weft floats on one side has warp floats on the other and *vice versa*. Blocks not weaving floats weave plain weave.

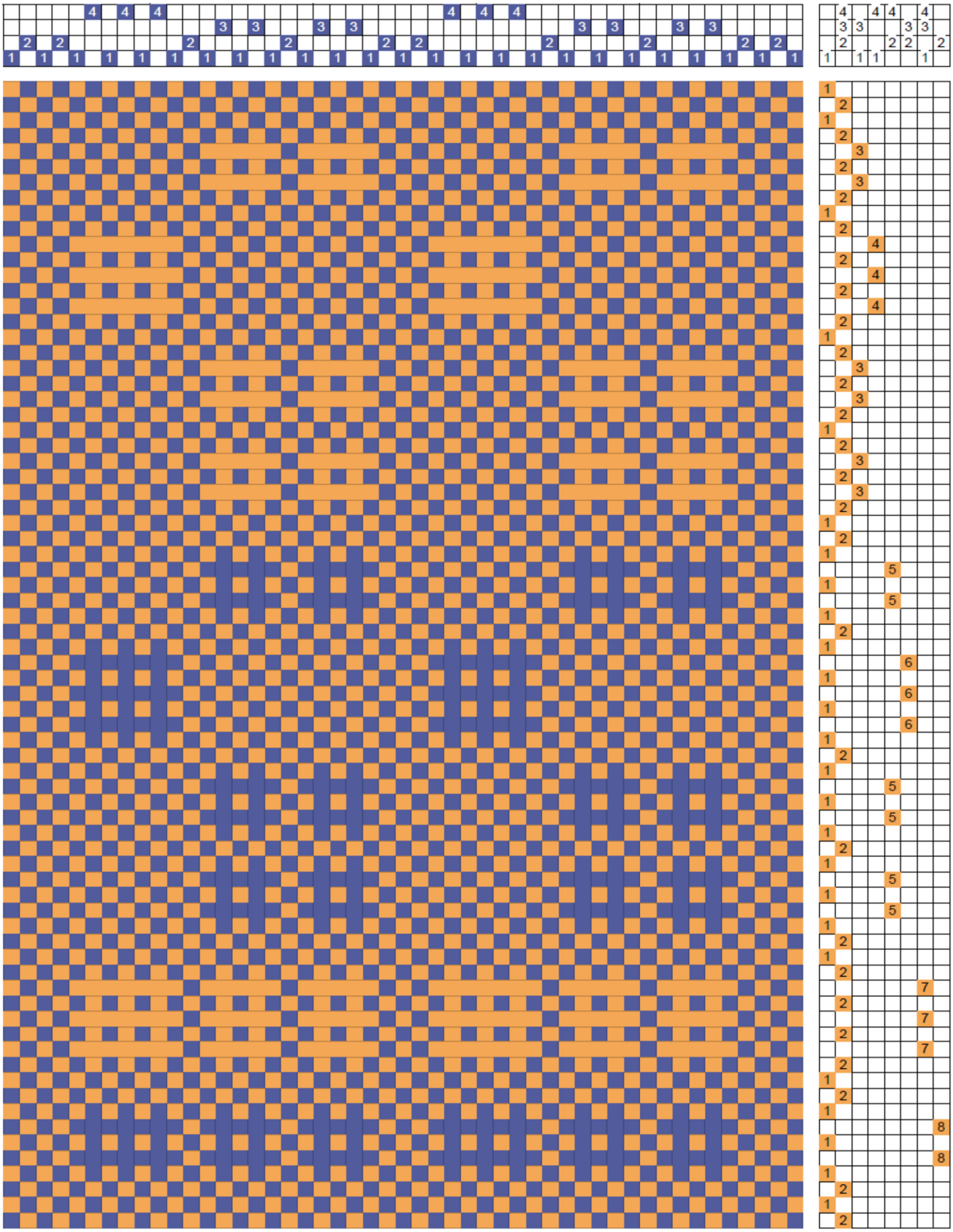
Plain weave can also be woven across the fabric as well as length wise, so that floating selvages are not needed.

A distinguishing feature of Bronson lace is that adjacent blocks are separated by one thread.

A unique characteristic of unit weaves is that blocks can be combined in the treadling. In the top part of fabric sample below, blocks are treadled separately; in the bottom part, the two blocks are treadled together in the middle.



Drawdown

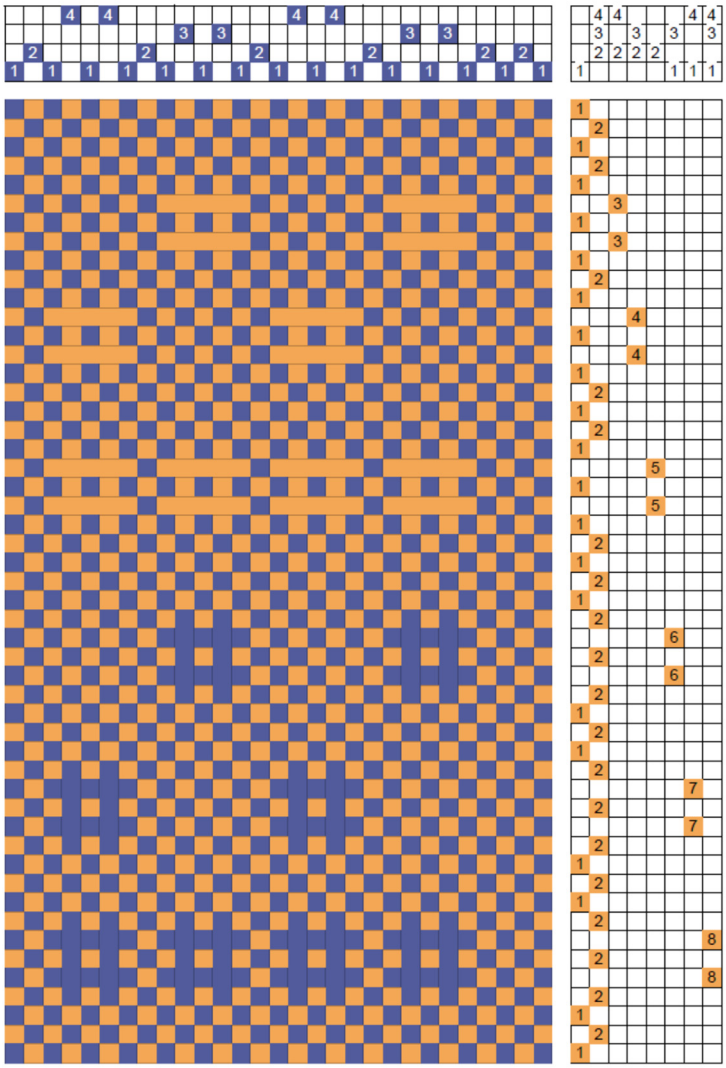


The ***sinking shed*** drawdown shows two blocks on four shafts. Block A with pattern shaft 3 is six thread wide and repeated; it could be twelve threads wide, but then the float would be too long. Since shaft 2 separates blocks, repeating a block controls the float length. Block B with pattern shaft 4 is eight thread wide. Blocks are woven to square. ***Every other thread is on shaft 1.***

Wherever the threading is on shafts 1 and 2, plain weave results down the length of the fabric. Treadling shaft 1 *vs* all pattern shafts results in plain weave across the fabric.

The drawdown also shows that on the same side of the fabric, weft float and warp float blocks can be woven. Block A and block B can be treadled together either as both weft float blocks or warp float blocks.

Below is the ***rising shed*** drawdown for the two blocks, weft and warp floats, and blocks treadled together.



Function

Traditionally Bronson Lace has been used for household textiles, but it can have a broader use. The lace provides drape, less than spot Bronson, huck or huck lace, still enough that I have used the structure for scarves and shawls.

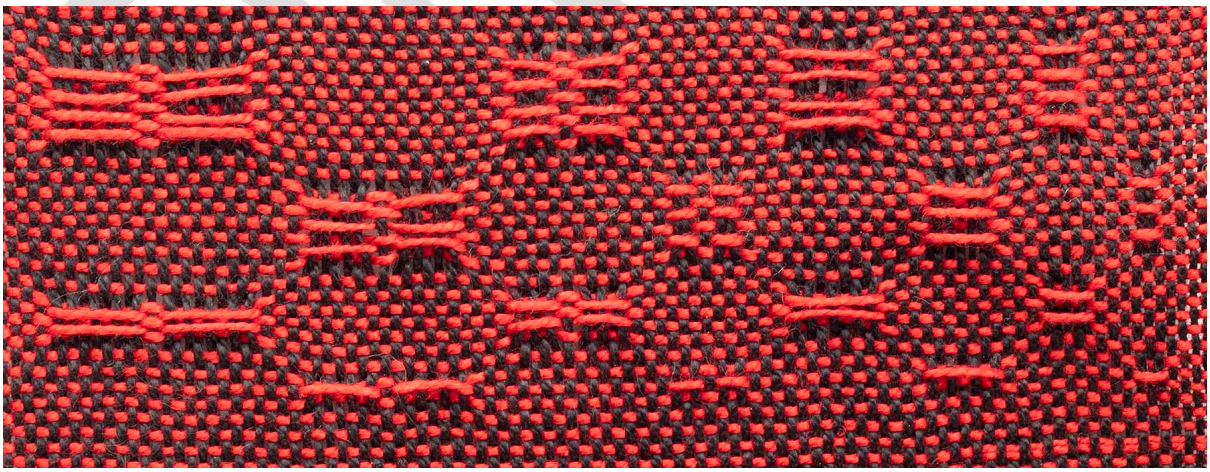
Sett

Bronson Lace is derived from plain weave, as its Emery classification implies. Thus, the usual plain weave sett for the given yarn is a good place to start. Adjustments can be made for the ratio of plain weave and lacey areas, but also for end use: the sett for a towel should be closer than the one for curtains.

Width of Block

The width of the block is variable; traditionally it is described as a six-thread block, but any even number of threads can be used provided the threading "rules" are followed: for any block, shaft 1 alternates with the pattern shaft and ends with shaft 2. To avoid long floats, a block can be repeated since it ends with shaft 2.

The sample that follows shows weft floats of different widths and repeated blocks, separated by one thread.



Weft blocks have floats that cover one warp thread less that the number of threads in the block. The length of the warp blocks is one pick less than the number of picks in the block treadling.

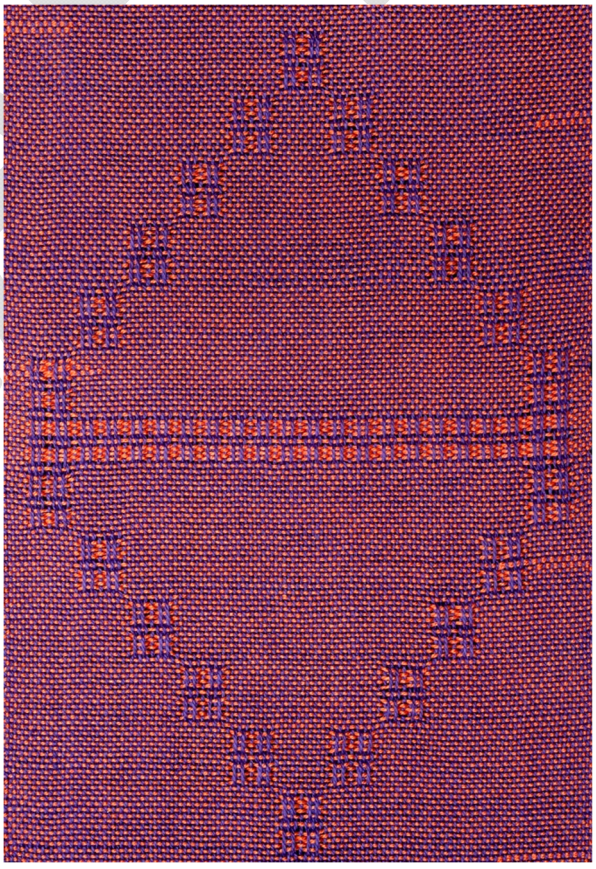
Number of Blocks Available

The number of blocks is equal to the total number of shafts available minus two since shaft 1 and 2 are common to all blocks.

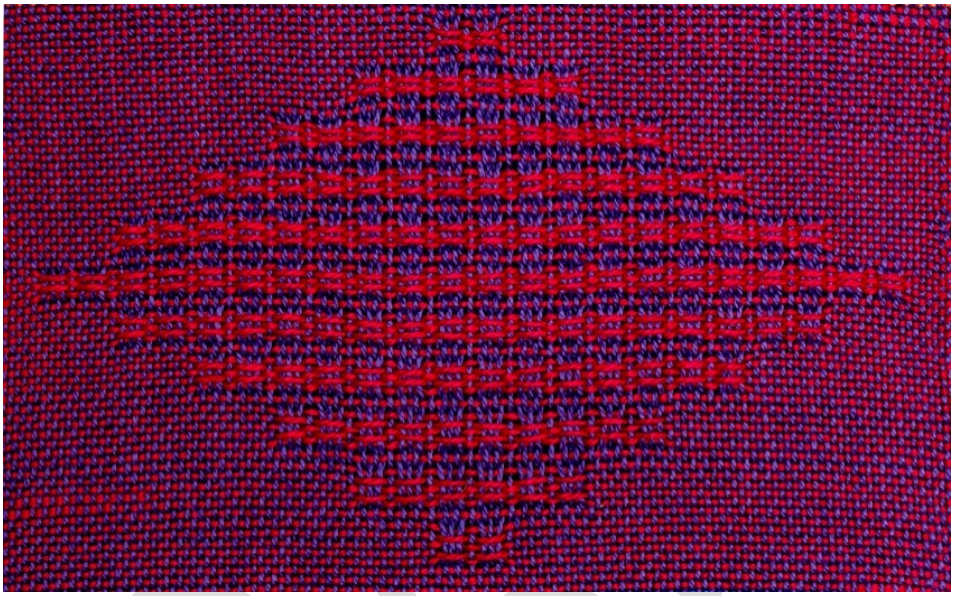
Bronson Lace on More Shafts

The characteristics of the structure are the same. Each additional shaft adds a block. On eight shafts, there are six blocks. They can be woven singly or in any combination.

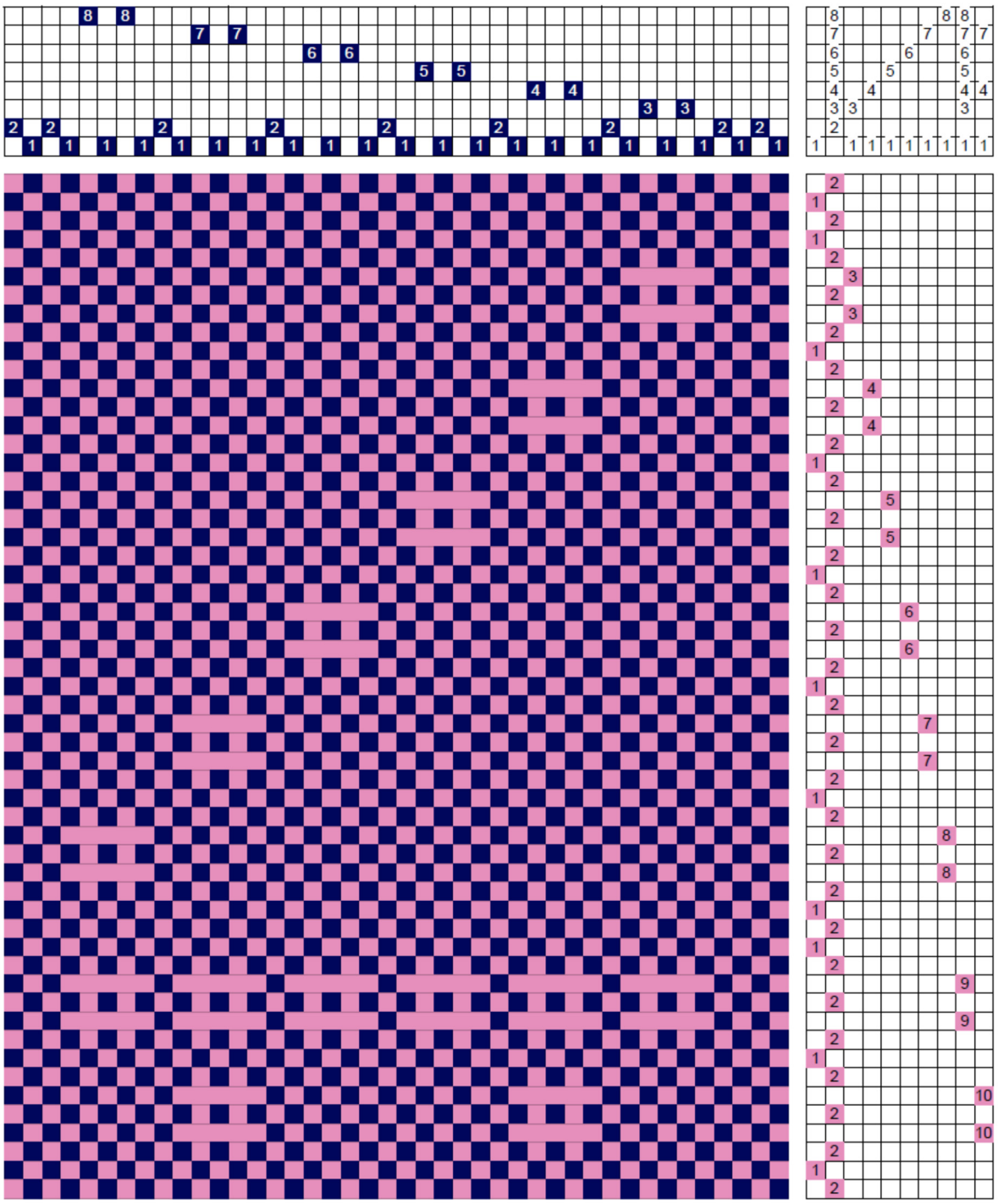
The threading for the fabric below is double blocks for each, in threading and in treadling. On the left are the weft-float blocks, on the right, the warp-float blocks.



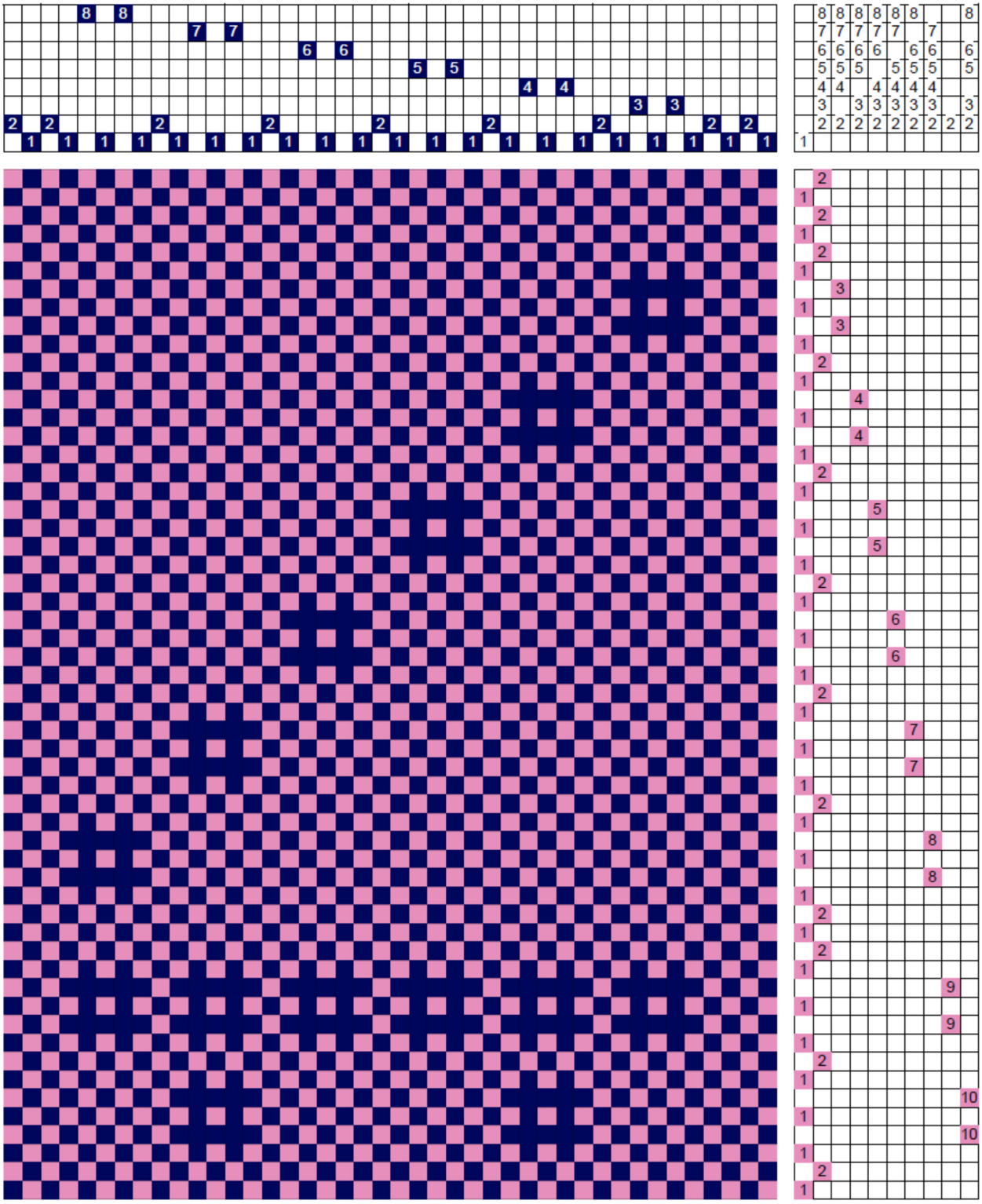
Blocks that are not woven with floats result in plain weave, as can be seen from the fabric above and the one below where the blocks are treadled in different combinations. As in four shafts, plain weave can be woven across the width and down the length of the fabric.



Next is the ***sinking shed*** drawdown for the six single blocks on eight shafts, treadled individually with weft-floats, all together as well as an example of how to combine two blocks. Eight treadles are needed to weave blocks individually. By using multiple treadling (i.e. two feet), two blocks can be combined easily.

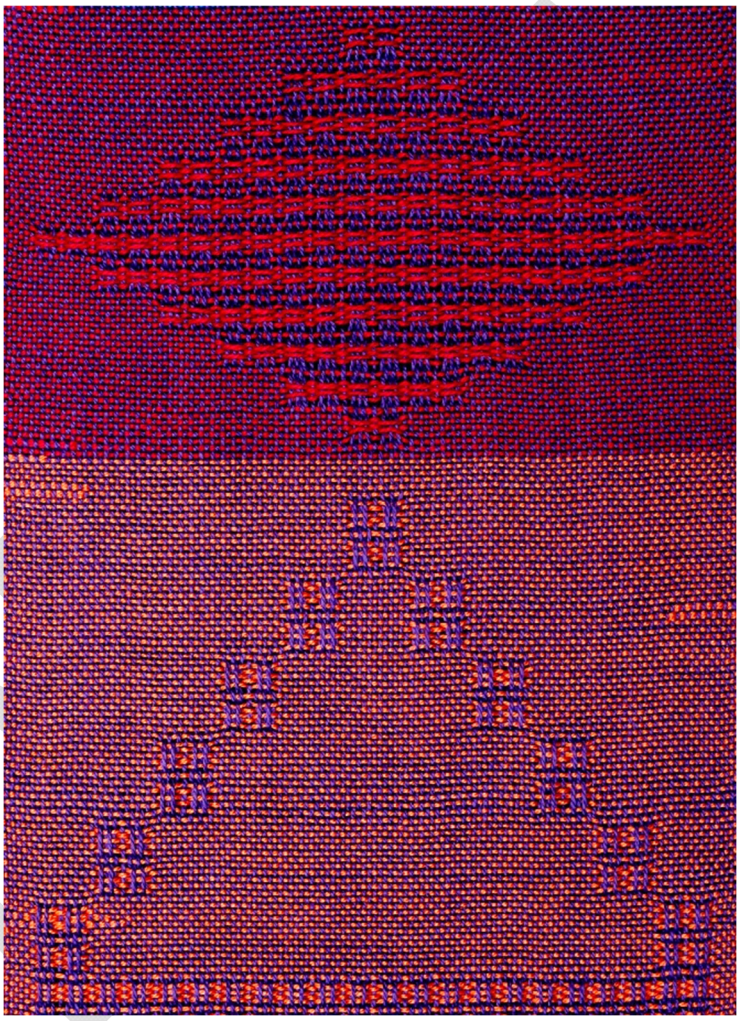


Below is the equivalent ***sinking shed*** drawdown for blocks with warp floats.



While the two types of blocks can be woven individually on the same side of the cloth, as shown on the fabric sample below, sixteen treadles are needed. The tie-up can be adjusted by combining blocks, unless a table loom or a dobby loom is used.

As for the four-shaft structure, every other thread is on shaft 1, so care must be taken to ensure enough heddles.



Bronson Lace is a versatile structure that allows flexibility in design from its characteristic of allowing the treadling of blocks together.

References

Black, Mary E. *New Key to Weaving*. New York, NY: MacMillan Publishing Co., Inc., 1945, 1975 printing.

Emery, Irene. *The Primary Structure of Fabrics*. Washington, D.C.: The Textile Museum, 1980.

Strickler, Carol (ed.) *A Weaver's Book of 8-Shaft Patterns from the Friends of Handwoven*. Loveland, CO: Interweave Press, 1991.