

Double, Two Unpaired Ties, 1:2 Ratio, “2:1 Beiderwand”

Emery Classification

Weave Compounded by Adding Sets of Elements, Supplementary: one warp, two wefts, one of which is not needed for the integrity of the cloth.

Weaving Category

Tied Unit Weave; the supplementary element is an *additional weft* which forms blocks of patterning. The structure is a double, two unpaired ties, 1:2 ratio, explained in the drawdown section. It is different from “double summer and winter” because the two pattern shafts are paired, resulting in the ratio of one tie shaft to two pattern shafts. This structure is sometimes called beiderwand because there are two layers of fabric with the blocks. However, true beiderwand is a double weave, two warps and two wefts. Here there is only one warp. Donna Sullivan cautions against using this name. The German word translates to “two walls”.

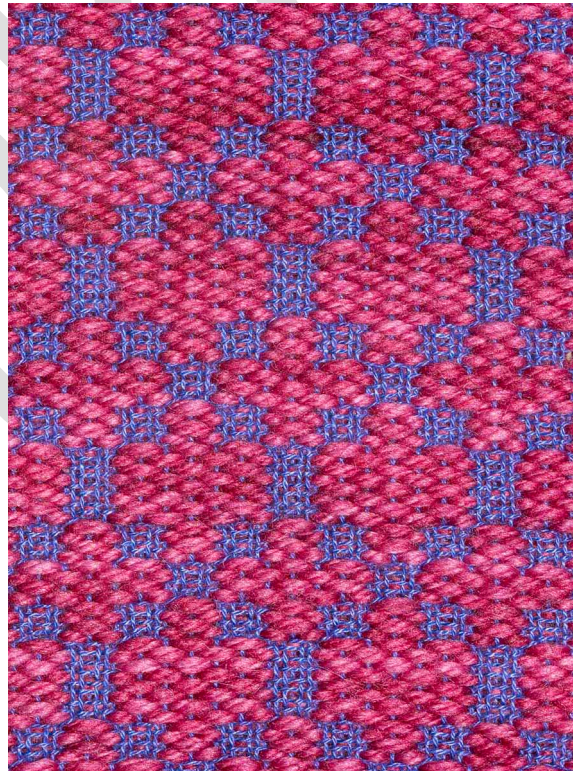
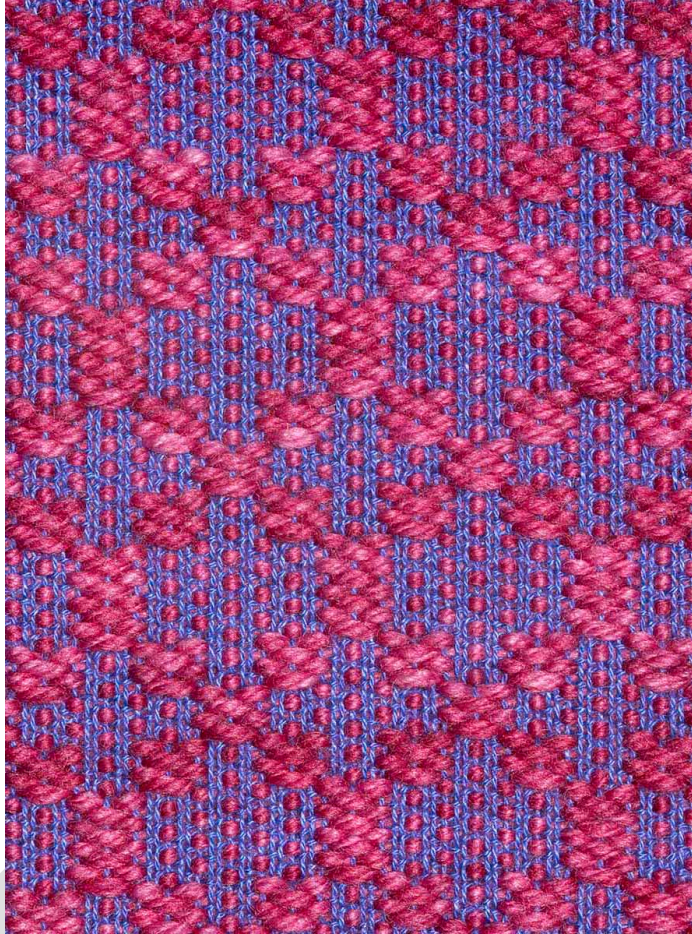
Fabric Characteristics

As we all supplementary weaves, the fabric is formed by a warp, a ground weft and a supplementary weft. The warp and the ground weft form the ground cloth that gives the fabric its integrity. They are usually the same size, but sometimes the ground weft is smaller. The supplementary weft is usually larger to show the pattern and loftier to pack in the web.

The side of the fabric considered the front, shown next, has blocks that are not solid but have staggered floats. In addition, the fabric shows a characteristic one thread weft float over the tie threads which is part of the background and is found in other tied unit weaves as well.

The second photo is the back side of the fabric which shows the plain weave areas underneath the blocks. This part of the fabric has two layers which gives the structure the confusing name.

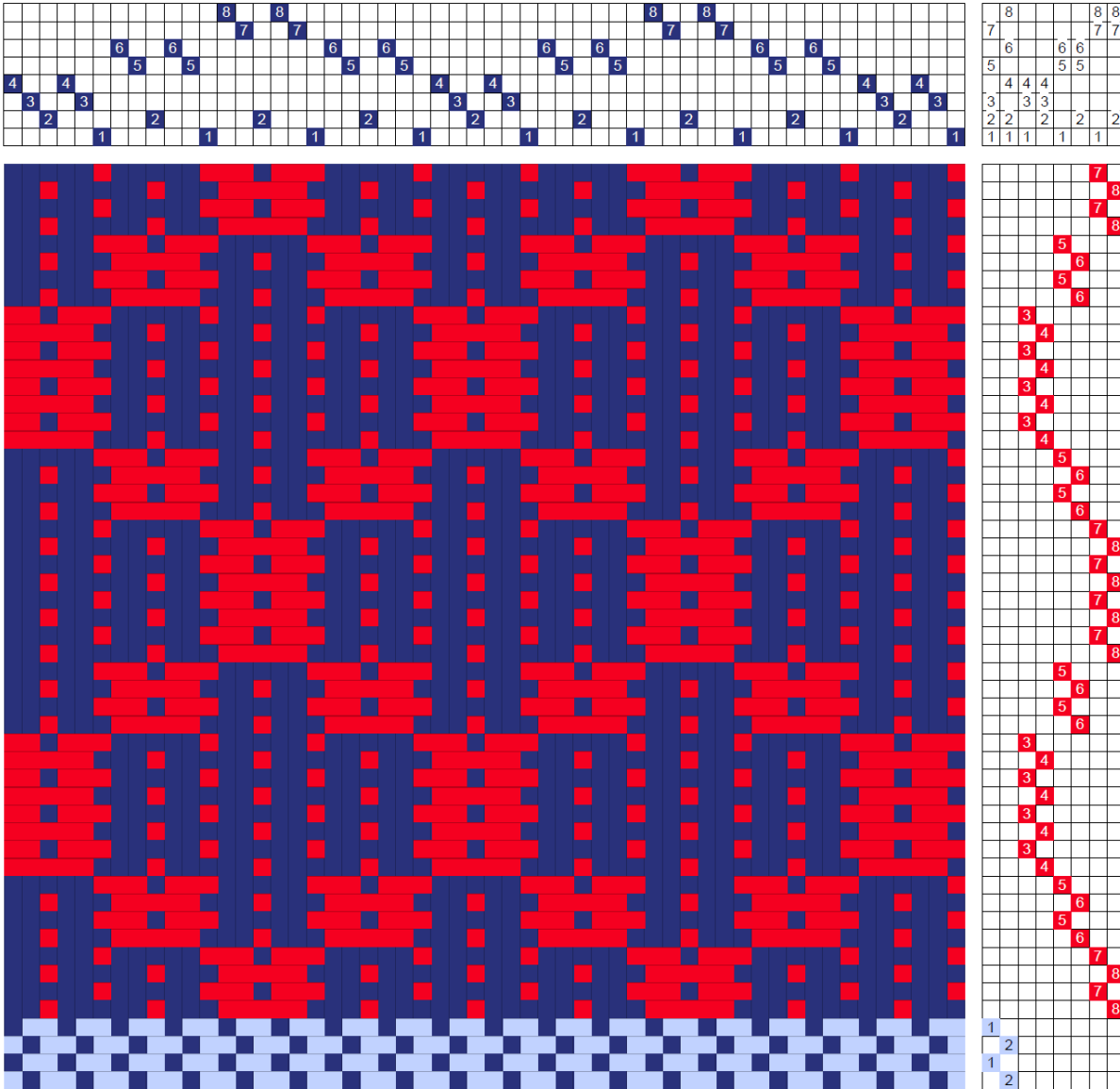
Where there is background on the front of the fabric, there are weft floats in the back.



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Drawdown

The *sinking shed* drawdown below explains the nomenclature of the structure: double, two unpaired ties, 1:2 ratio. There are two repeats of the motif with three blocks organized in pointed order.



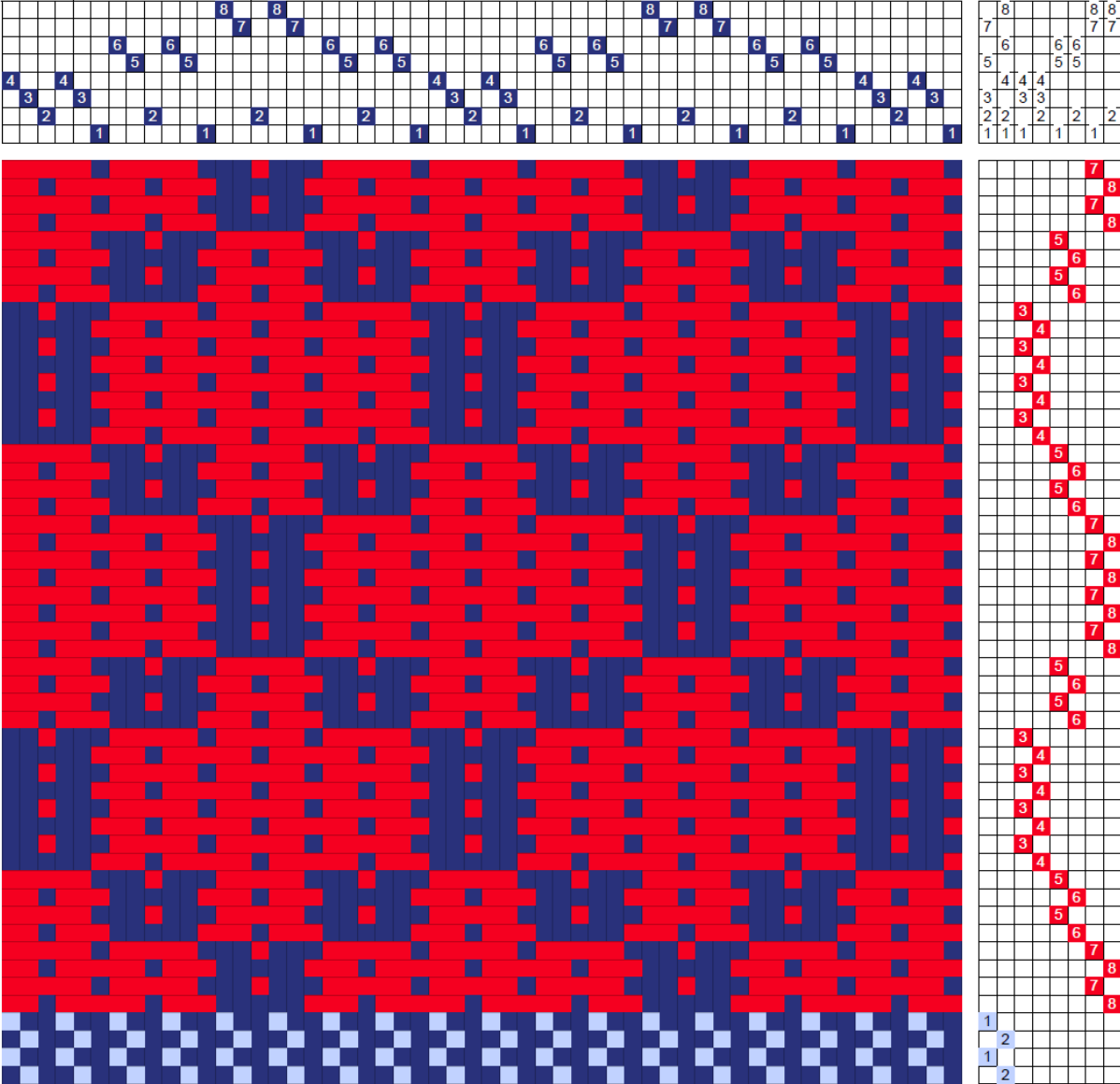
Double refers to the *two shafts* per block. There are *two ties*, shafts 1 and 2. The ties are *unpaired* because they are *separated* by the two pattern shafts. The *ratio* is 1:2 because there are two ties per block and four pattern threads (not pattern shafts); two to four reduces to 1:2.

Not shown in the drawdown is that each pattern pick used in treadingling order is followed by one of the tabbies; they intersect with the warp to form the ground cloth.

The tabbies are both tabbies plus all odd shafts *vs.* both tabbies plus all even shafts. This treadingling results in a pseudo basket weave as can be seen at the bottom of the drawdown.

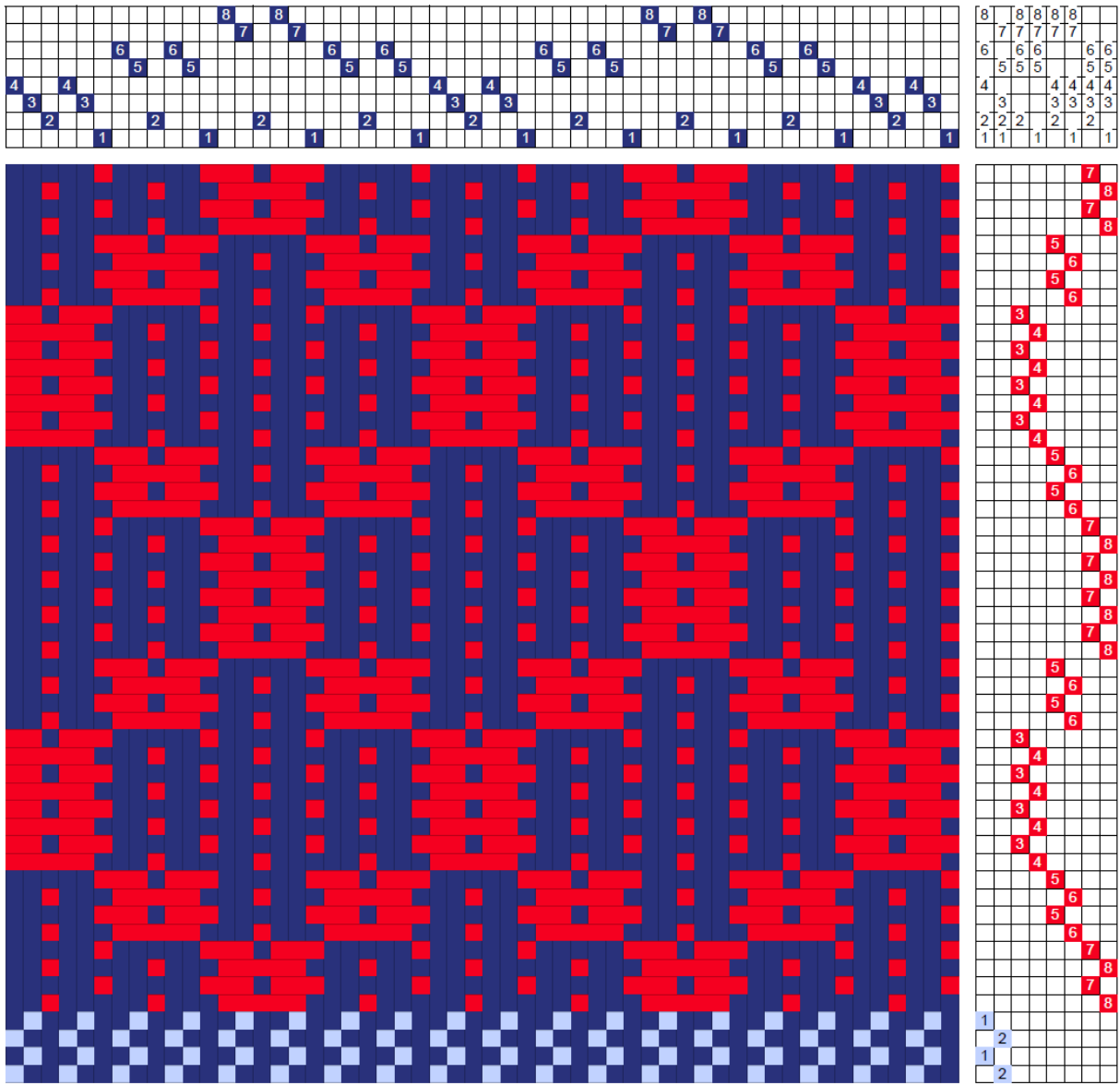
Treadingling for each block is tabby on shaft 1 plus both shafts of the block followed by tabby on shaft 2 plus again both shafts of the block. These two picks are repeated to square the block or as long as desired.

Below is the *rising shed* drawdown, showing the other side of the fabric.



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Below is the *rising shed* drawdown to weave the front of the fabric.



Function

As we usually find in tied unit weave textiles, this fabric is used for household textiles. The portion with the double fabric makes it particularly hefty.

Sett

To allow room for the supplementary weft, the sett should be more open than the one for plain

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weave. The sample was woven using 10/2 mercerized cotton sett at 18 epi, more open than the 24 epi I may use for plain weave.

Width of Blocks

The width of the block is six threads. In the fabric sample the blocks are singles arranged in pointed order. As with all tied unit weaves, blocks can be repeated in the threading and combined in the treadling.

The floats in each block alternate between over three threads and over five. The floats are delimited by either the warp tie thread on shaft 2 or the warp tie thread on shaft 1 of the adjacent block.

Number of Blocks Available

There are three blocks with eight shafts; two shafts are used for tabbies and shared by all blocks; two shafts are needed for pattern blocks. Thus, every additional block required two additional shafts.

Notes

The “2:1” designation on the Beiderwand name comes from the way true Beiderwand is woven. See the reference by Madelyn Van der Hoogt for the explanation.

References

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.

Sullivan, Donna. *Summer & Winter. A Weave for All Seasons*. Loveland, CO: Interweave Press, 1991.

Van der Hoogt, Madelyn. <https://handwovenmagazine.com/doubleweave-part-2-beiderwand-and-lampas/>, November 24, 2015.