# Double, Two Paired Ties, 1:2 Ratio, "Tied Latvian and Lithuanian"

# **Emery Classification**

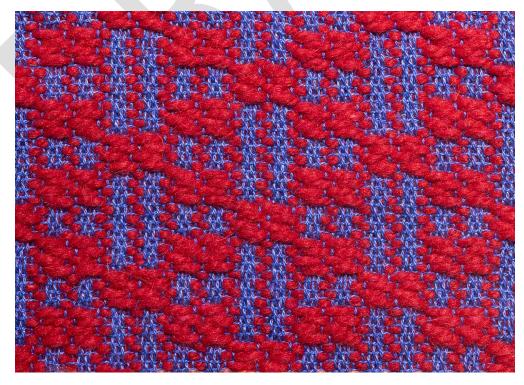
Weave Compounded by Adding Sets of Elements, Supplementary: one warp, two wefts, one of which is *not* needed for the integrity of the cloth.

# **Weaving Category**

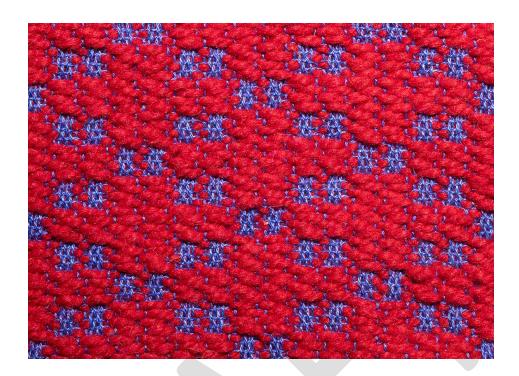
**Tied Unit Weave**; the supplementary element is an *additional weft* which forms blocks of patterning and is not needed for the integrity of the cloth. The two weaves share the same threading with different treadlings. They are both classified as Double, Two Paired Ties, 1:2 Ratio, explained in the drawdown section. The names "Tied Latvian" and "Tied Lithuanian" come from the names of the countries where these structures have been used historically.

## **Fabric Characteristics**

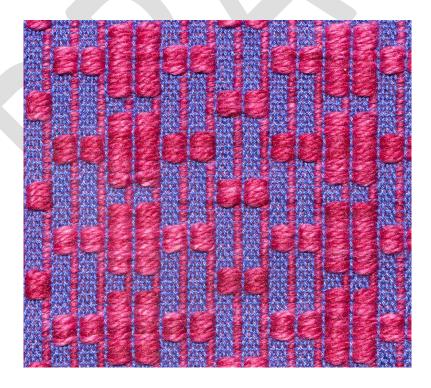
Below is the front followed by the back of a fabric sample of Tied Latvian.



1 Tied Latvian and Lithuanian



Below is the front of the fabric sample of Tied Lithuanian, followed by the back.



2 Tied Latvian and Lithuanian



As we all supplementary weaves, the fabrics are 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.

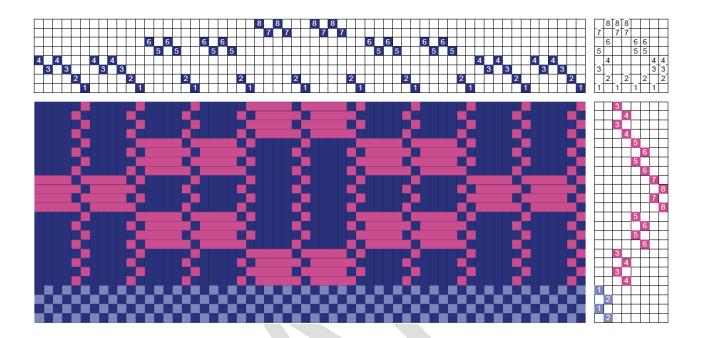
The weft blocks of Tied Latvian are not solid, but steepled. Those of Tied Lithuanian are solid. The background in both fabrics is plain weave. In both fabrics, where there are blocks on one side of the fabric, there is background on the other and *vice versa*.

### **Drawdown Tied Latvian**

The following *sinking shed* drawdown is for Tied Latvian. The structure is double, two paired ties, 1:2 ratio. The example shows three blocks on eight shafts, each block is repeated and woven in pointed order.

**Double** refers to the two shafts per block. There are *two* ties, shafts 1 and 2. The ties are *paired* because they are adjacent to each other. The ratio is 1:2 because there are two ties and four

pattern threads (not pattern shafts) per block; the 2:4 ratio simplifies to 1:2.

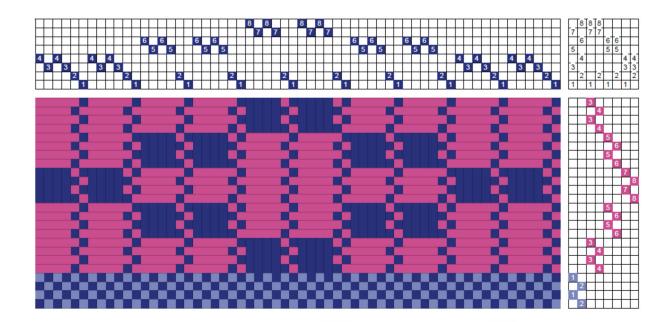


Not shown in the drawdown is that *each pattern pick* used in treadling order *is followed by one of the tabbies*; they intersect with the warp to form the ground cloth.

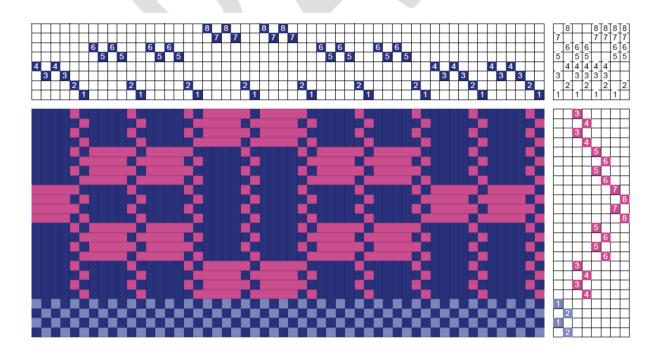
The tabbies are odds vs. even.

The treadling for each block of the Tied Latvian above is each tabby with both pattern shafts alternating with the other tabby with both pattern shafts, similar to many tied unit weaves. The two pick treadling is repeated to square the block.

The next *rising shed* drawdown shows the other side of the fabric.



The *rising shed* drawdown below shows how to weave weft blocks on the top of the fabric on a rising shed loom.

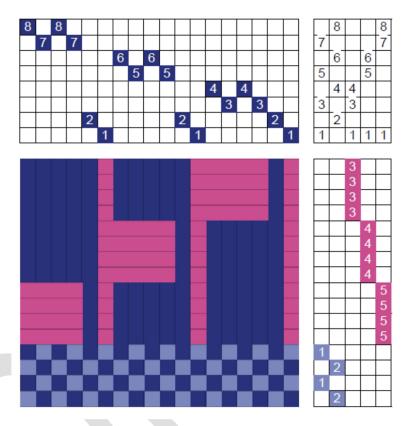


5 Tied Latvian and Lithuanian

## **Drawdown Tied Lithuanian**

Tied Lithuanian shares the blocks of Tied Latvian and thus the two fabrics have the same nomenclature.

The *sinking shed* drawdown that follows is for treadling individual blocks.

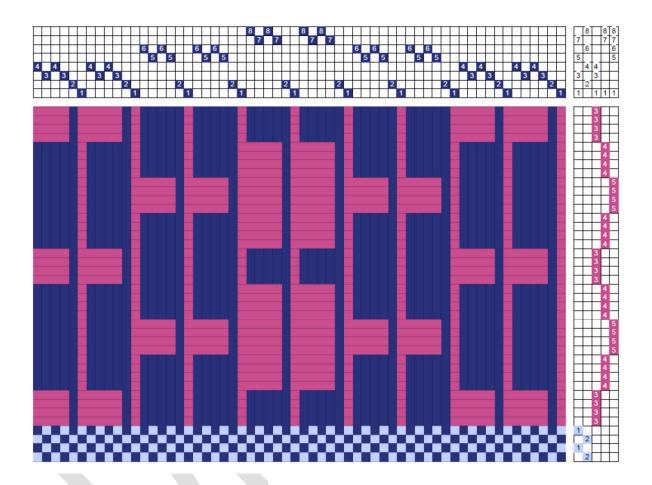


In contrast to Tied Latvian, each block of Tied Lithuanian uses one pick which is repeated to square the block. The pick is tabby shaft 1 plus the two shafts of the block. This results in the characteristic column of weft which abuts each block.

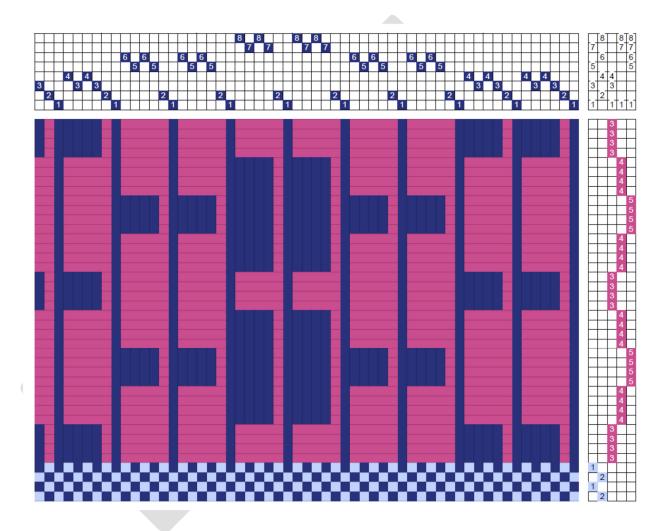
The tabbies are the same, odd vs. even.

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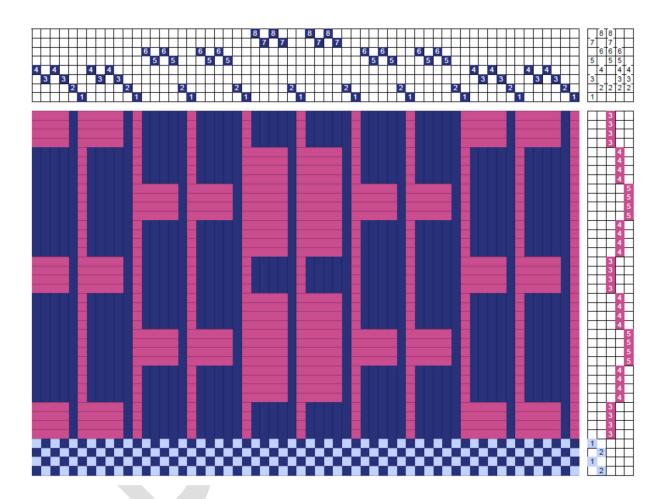
The following *sinking shed* drawdown was used to weave the sample, where blocks B and C were combined in the treadlinng.



The *rising shed* drawdown below shows the other side of the fabric.



Next is the *rising shed* drawdown that can be used in a rising shed loom to weave the weft blocks on top of the fabric.



The tabby on shaft 2 is used by each block along with the pattern shafts, rather than shaft 1 as in the sinking shed drawdown.

## **Function**

These textiles are hefty because of the double weft. They can be used for household items like blankets or pillows. They are also used as embellishment in portions of national customs in the Baltic countries.

### Sett

To allow room for the supplementary weft, the sett should be more open than the one for plain weave. The sample was woven using 10/2 mercerized cotton sett at 18 epi, more open that the 24 epi I may use for plain weave.

### Width of Blocks

In both Tied Latvian and Tied Lithuanian, the blocks are five thread wide, four floats over the pattern wefts and an additional one over the tabby.

## **Number of Blocks Available**

Three blocks are available on eight shafts, two shafts for the ties are shared; each block uses two shafts. Each additional block requires two additional shafts.

### References

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

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