

Mammen-inspired diamonds

Woven using a missed hole technique, and showing variations that can be woven with the same setup

Description

This band features simplified motifs from the Mammen woollen band (Denmark, 10th century). The extant band is wool, but Hansen says that the border tablets were threaded with four wool threads each, and the pattern tablets with two wool threads and two flax threads which have not been preserved.¹ The pattern was woven in 3 / 1 broken twill² with 17 tablets (including border tablets). The wool is now dark brown, but a greenish tinge in the middle part of the warp is from woad dye, so the background may have been blue.

The motifs can be seen as gaps in the band where the flax would have lain, and include a series of four connected diamonds, with smaller diagonal motifs on either side. We have no clue as to the colour of the missing threads but it will probably have been strongly contrasting.



Figure 1: sample woven two-ply Silver Viscount machine knitting wool.

- 1 It is possible the band was woven as a relief pattern but this wouldn't have looked very impressive unless the weft was very bold – I think a missing flax thread, as Hansen suggests, is more in keeping with the bold patterns usual in historic tablet weaving, and with other finds of 3 / 1 broken twill.
- 2 3 / 1 broken twill was very popular in the Viking age but it is a highly advanced technique.

The sample band in Figure 1 is woven using a “missed hole” technique, in which one hole of each pattern tablet is left unthreaded, creating a ground weave with an attractive texture where the weft shows. A single yellow thread opposite to the vacant hole allows a wide range of motifs to be woven.³

The basic weaving method is very simple, with all tablets turned together either forwards or backwards. However care must be taken when handling the tablets as the missing thread makes them unstable and they will easily fall out of position. If you slide the tablets against the fell (the edge of the woven cloth) when you are not actively weaving, they will remain in place, and you can tie a string around the tablets for extra security.

Figure 1 shows repeating sets of four connected diamonds, similar to those on the Mammen band. However, the same warp setup can be used to weave additional motifs. Instructions are given to weave more complex motifs from the Mammen band, and other simple Viking-age motifs.

| | |
|---------------------------|--|
| Difficulty | Easy |
| Authenticity | B Modern design using period techniques and simplified period motifs. Suitable for Viking re-enactment, medium status. |
| Number of pattern tablets | 8 |
| Number of border tablets | 8 |
| Weaving technique | Missed hole threading. Diagonal motifs created by individual turning of tablets. |

References

Hald, Margrethe. *Ancient Danish Textiles from Bogs and Burials: A Comparative Study of Costume and Iron Age Textiles*, trans. Jean Olsen. Archaeological-Historical Series Vol. XXI. Copenhagen: The National Museum of Denmark, 1980.

Hansen, Egon H. *Tablet Weaving: History, Techniques, Colours, Patterns*. Hovedland 1990.

Leet, Kris; Malan, Linda. *The Willful Pursuit of Complexity: Rediscovering the Vacant-Hole Technique, the Hofdi and Uvdal tablet woven bands*. Seattle Weavers Guild, 2004.

3 This missed hole technique is known from Hofdi, Iceland and Uvdal, Norway where warp patterning was combined with brocading (surface weft decoration). These very complex bands are thought to be twelfth / thirteenth century but it is likely the basic technique was known earlier.

Threading

Pattern tablets

Eight pattern tablets, each threaded with two red threads and one yellow, arranged red / yellow / red / empty. It doesn't matter how the tablets lie when you thread up, so long as the empty hole is opposite to the yellow pattern thread. You will arrange the tablets correctly in the next step.

Pattern tablets are numbered 1-8.

Border tablets

Two border tablets on each side. Each of the border tablets is threaded with four red threads. Orient the border tablets alternately, S Z.⁴

Border tablets are not numbered because they are not manipulated in the pattern, and you may design any border you like.

Weft

Use the same red thread for the weft as the red background threads because it will show in the gaps.

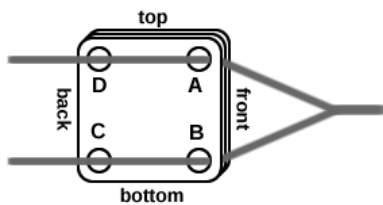


Figure 2: labelling the positions.

A, B, C, D show the positions of the threads in the threading diagram. Most weavers do not label their tablets because which hole is “A” changes as you turn them.

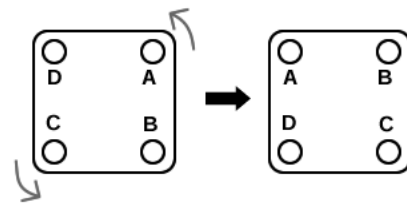


Figure 3: turning the tablets forwards.

If you work with the woven band on your side of the tablets, push the top of the tablets away from you with your thumbs.

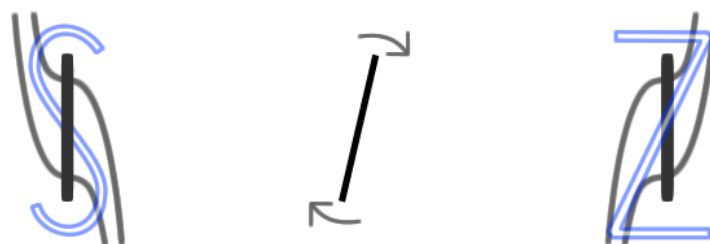


Figure 4: flipping a tablet to change it from S to Z (top view).

⁴ Orientation refers to the direction the threads pass through the tablets (Figure 4).

Weaving the diamonds motif

After you've threaded the tablets, arrange them to match Position 1 in Figure 5:

1. Flip tablets as necessary so that tablets 1-4 are Z-threaded and 5-8 are S-threaded.
2. Turn tablets as necessary until the threads are in the correct places, for example tablet 1 should have the yellow pattern thread in the bottom front hole.⁵
3. Weave 6 picks⁶, turning all tablets forwards: the tablets should now be in Position 2.
4. Continue working up the weaving diagram. Each horizontal row of the diagram shows how to turn the pattern tablets for that pick: a white box means turn the tablet forwards, and a grey box means turn it backwards⁷. For the diamonds motif, the pattern tablets are turned together, either all forwards or all backwards.

Figure 5 shows the position of the tablets at the start of each step, so you can check you are at the right place.

After you have reached the top of the diagram, the tablets should be in Position 1 and you can start again at the bottom of the diagram.

When the border warp threads become tightly twisted, flip all the border tablets. This will reverse the twining and undo the twist. To make this as inconspicuous as possible, flip the border tablets at a point when you are not also changing the turning direction of the pattern tablets.

⁵ The “fell” is the leading edge of the woven fabric.

⁶ One “pick” is a single unit of weaving, that is turn the tablets, clear and beat the shed, tighten and then pass the weft.

⁷ “Backwards” means turn the tablet in the opposite direction, so the holes labelled AB would move to the bottom of the tablet, not the top.

- Turn tablet forwards
- Turn tablet backwards
- Diagonal line shows pattern thread
- Yellow thread
- Red thread
- Empty (no thread)

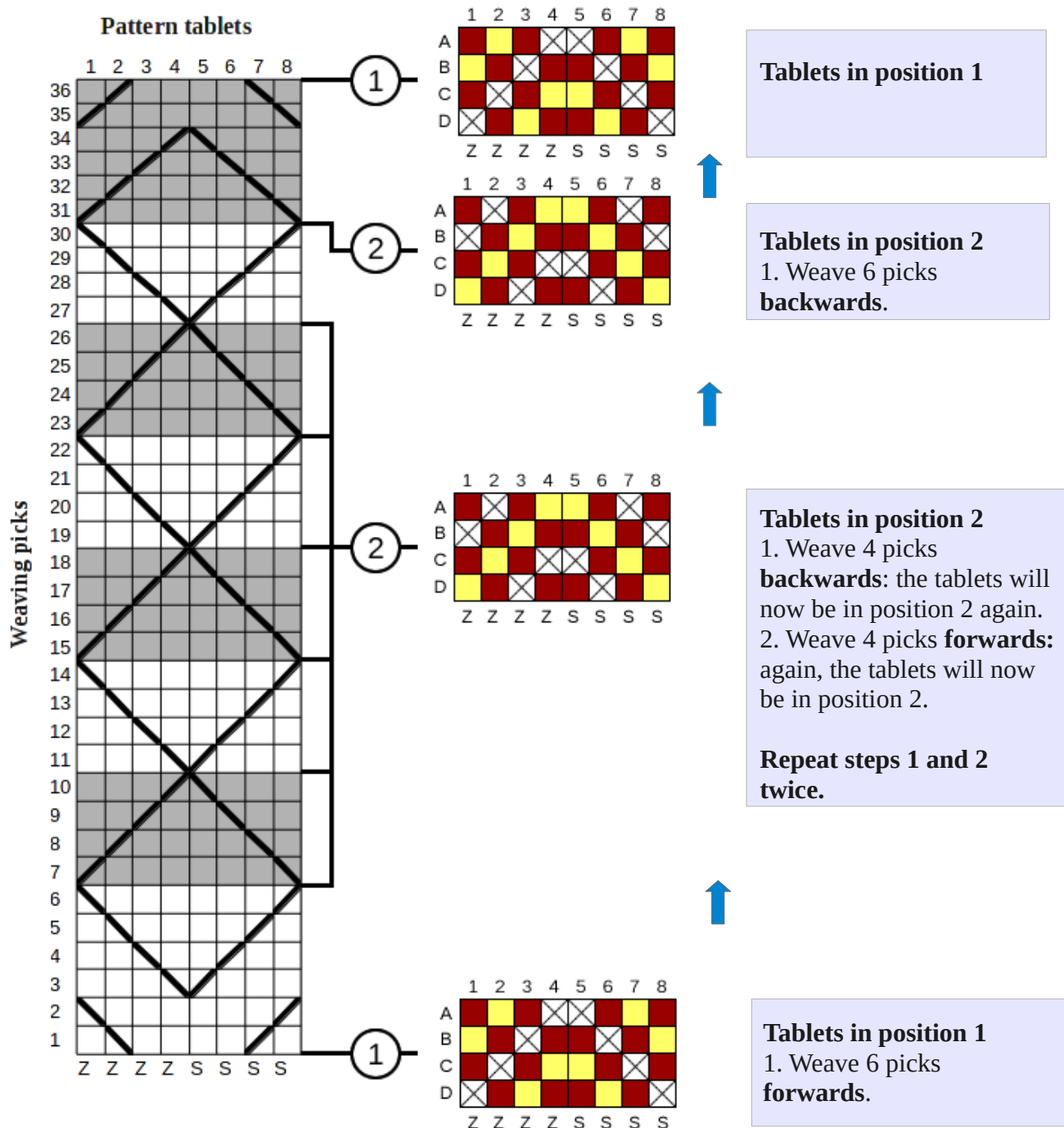
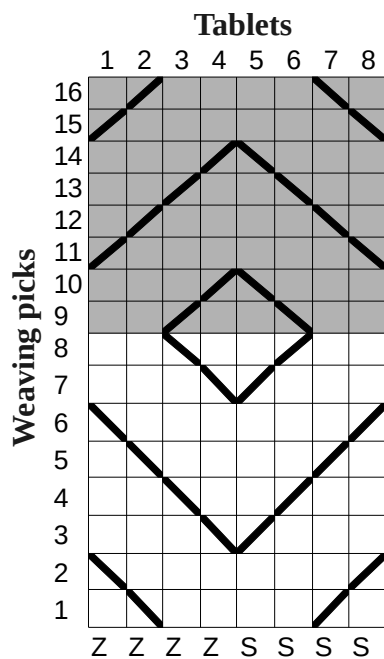



Figure 5: weaving instructions.

Start at the **bottom of the diagram** and work upwards, following the steps in turn.

Other simple motifs

Each of these motifs is simple but by combining them, you can design a variety of Viking-style bands. Each motif starts and ends with the tablets in position 1.



- ☐ Turn tablet forwards
- ☒ Turn tablet backwards
-  Diagonal line shows pattern thread

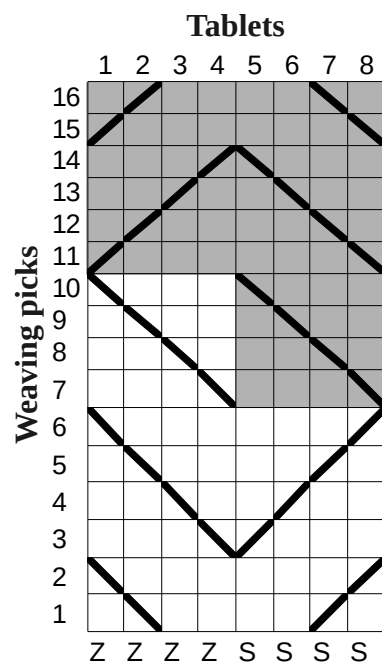
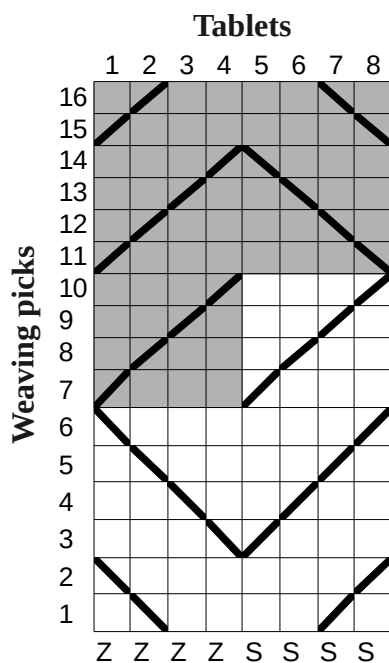


Figure 6: other simple motifs.

More motifs from the Mammen band

These motifs are again taken from the woollen Mammen band and can be worked in between repeats of the basic motif. Each motif starts and ends with the tablets in position 1.

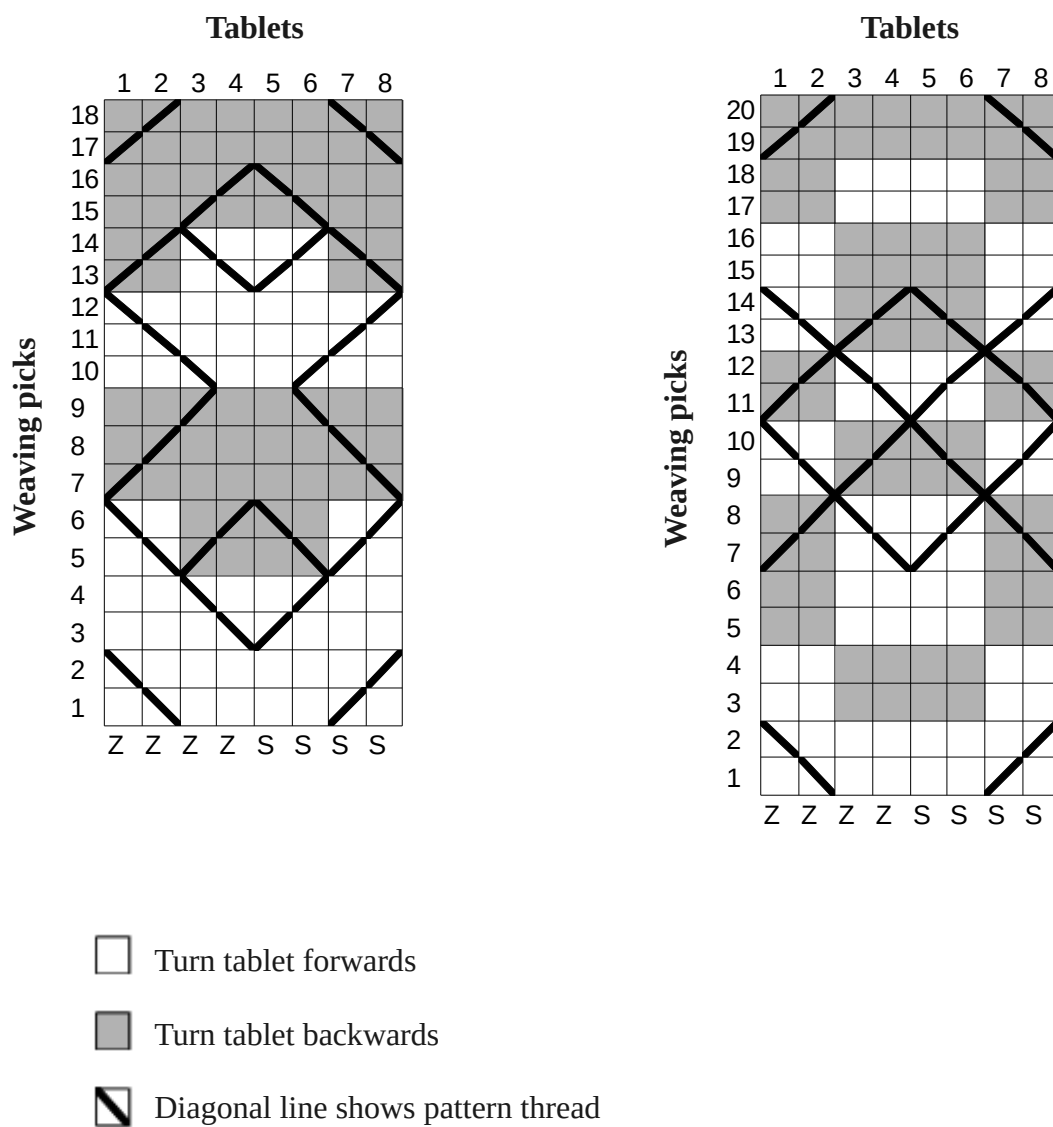
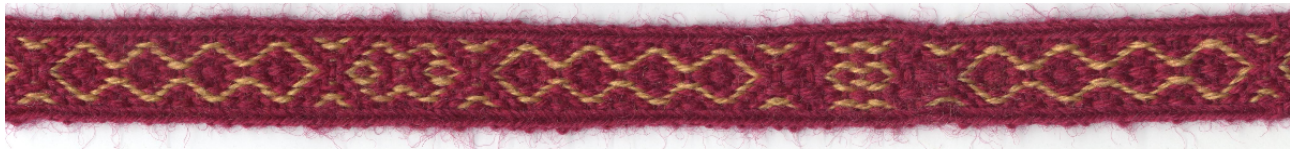


Figure 7: more motifs from the Mammen band.