

Adorn, tie, lace, attach, hang, knot and reinforce

LOUISE STRÖM DOES TABLET WEAVING, USES A RIGID HEDDLE AND A BAND LOOM. PART OF HER BUSINESS, SPÅNGMURS, INVOLVES RUNNING COURSES IN ADDITION TO WRITING BOOKS AND MAKING VIDEOS ABOUT MAKING BANDS.

BANDS can be used in a multiplicity of ways: as adornment, belts, guitar straps, reinforcement, decoration and for repair purposes. They can be shoelaces and straps, reins for horses and dog leads. For tying together, to secure and to deal with technical problems arising when sewing.

Band weaving fits in with life today. A band weave is not big, is easy to carry around, can even be stuffed in a pocket. I like weaving bands instead of knitting when I am with others; I can plump down on a sofa in front of the TV with a band weave. Opting for harder patterns when there are programmes on that don't interest me, simpler patterns for the interesting ones. I find it is absolutely fine to have 15 projects on the go simultaneously.

Band weaving can be made really simple so a child can manage it, but there are also really advanced techniques for people who like complex weaves and proper challenges.

Interest in bands has grown considerably in recent years, driven chiefly by the interest in historic dress. Within the Viking and mediaeval associations and re-enactment groups there is huge interest coupled with handwork skills of all kinds, not least band weaving.

People have needed bands since time immemorial, for securing things and holding clothes together, for example. A rope is admittedly good and useful, but would be awkward if it were too wide.

A BAND WEAVING LIFE

In 1964, at the age of 10, I came upon an

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archaeological article about finds of tablets (for weaving). My mother considered I was too small to do weaving but I worked out I could manage to weave bands by myself.

The back of the maths book was turned into tablets, while the warp got tied to the key of the desk – and two bands got woven before the key broke.

Later I inherited my mother's band weaving equipment and was also given the book *Band* by Astrid Axelsson and Liv Trotzig, describing how to go about it. After secondary school, I did the one-term course in weaving at Sätergläntan with Astrid Axelsson as my weave tutor. She taught me a lot about weaving with the rigid heddle, on the band loom and about braiding.

During the one-year course in weaving I did at Högbo in Sandviken, I wove a lot of bands of an evening. Producing a big pile of samples of pick-up rigid heddle woven bands. Then in 1975 I did a week's course in tablet weaving at Sätergläntan led by the Norwegian handicraft consultant, Torbjörg Gauslaa. That course gave me much insight into the potential of the technique, but despite this I was far

from fully trained. During my practical year I wove bands and gave courses. Then when I was at the Hemslöjden in Gävle, I wove and braided loads of bands for Gästrikland folk costumes. While I was on practical placement in Nordiska Museet's (Nordic Museum) textile store in Stockholm, I was able to see loads of beautiful, fun and ingenious bands. The best of these I copied down. So in 1978, when I embarked on the two-year course in craft and furnishings at Handarbetets Vänner in Stockholm, my essay, naturally, was on bands – bands in the Leksand folk costumes. Leksand is indeed the centre of band weaving. Over the years I have given many courses, including on band weaving, to various study groups and associations. I joined the Viking association, Fafner, and realized I hadn't grasped what was, essentially, the exciting aspect of tablet weaving. There are absolutely wonderful finds of really advanced tablet woven bands, which were made up to the early Middle Ages, intriguing techniques and beautiful patterns just waiting for somebody to figure out how they were woven. New experiments with threads and tablets ensued. Subsequently, my tablet weaving progressed by leaps and bounds, this was something quite different to the band weaving I had done before. In 2013 I set up my own company, Spångmurs AB, to concentrate on the craft full time.

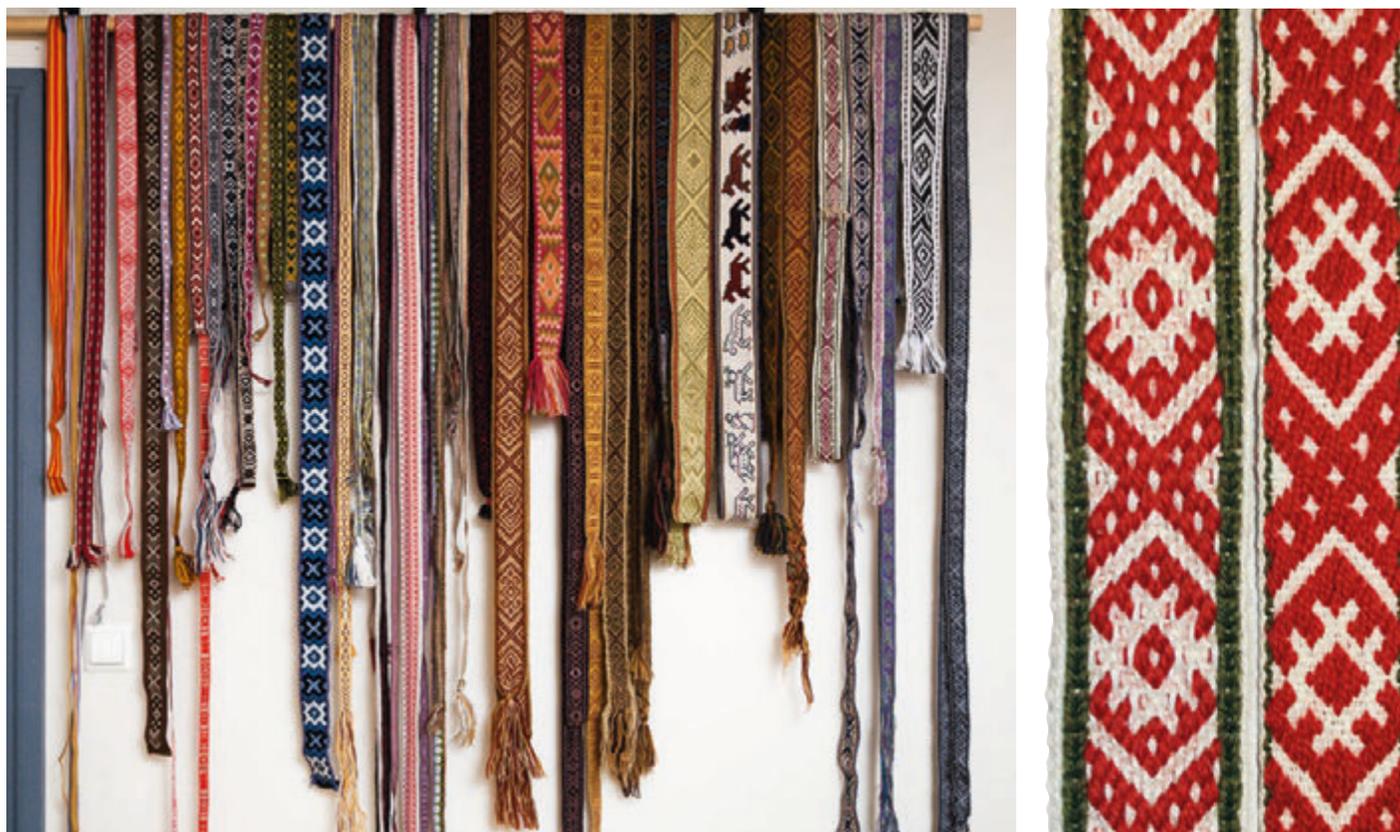
TABLET WOVEN BANDS

The equipment for tablet weaving bands is

Left Bands in a variety of techniques at Louise Ström's business, Spångmurs, in Gästrikland.

Right Both bands are woven with the same pattern but different techniques.

The band to the right was woven with a rigid heddle, the band to the left was woven with tablets.



very simple, being tablets with holes that could be made by anyone at all. The threads twist around each other instead of passing straight forward as in a regular weave. A shed is created by turning the tablets. Tablets can have from three to eight sides, with holes in the corners and possibly even a few other places.

When and where the technique came into being is unclear. Several hundred years BCE advanced tablet woven bands were being made, for example, in what is now Germany.

Tablet weaving was common and well developed in Nordic countries and the rest of Europe during the Migration period, the Viking era and on to the early Middle Ages. Most of the preserved bands are of the exclusive kind, as they were found in the graves of well-to-do people or are ecclesiastical textiles. Bands were used, for example, as one way of indicating status. The patterns were woven with fine, even yarns, preferably in costly materials, advanced and time-consuming work. Copies woven today of the exclusive type of

historical bands are as costly as the originals of their time.

It would be reasonable to assume that there were many functional bands made of simple materials in simple patterns, but there are not so many finds of such bands.

Tablet weaving disappeared gradually during the Middle Ages and survived to our time only in its simplest form, in bands which needed to be particularly strong, such as reins or braces.

A tablet woven band consists of a number of narrow cords joined together by the weft. The ends running through any one tablet twist around each other, which means that each thread slants slightly, either to the right or the left (Z and S twist). This slant means that the surface can look like knitted stitches or have clearer lines on one side, while the pattern on the reverse appears more diffuse.

Tablet weaving with four-sided tablets is the form most commonly practiced, being easy to work with and allowing for many different techniques.

Tablet weaving was almost at the point of disappearing, but thanks to our historical period associations actively working with the Migration period, the Viking age, the Middle Ages as well as certain re-enactment societies, the interest is greater than ever and tablet woven bands appear to be hard currency. How the most advanced bands were woven we do not know. Finds can be analysed and the end results be correct but we will never know how people thought and did things on a purely practical level. One thing is for sure; that today's method of weaving according to a set scheme, charted out thread by thread, would not have been the norm. Big paper patterns can be substituted with various methods of keeping a pattern in one's head by memorizing the pattern elements to be combined with each other. Perhaps there were names for the various building blocks so that they could be described to someone else doing the weaving.

Many old bands have patterns that do not repeat and patterns that are variations on a basic form, cross, squares, S, F and swastikas.



Changes in the weaving of a band: The band was first woven with light grey warp ends and two empty holes, revealing the weft at those points. After some sampling, black pattern ends were added and green weft used. The empty holes were repositioned and extra tablets for a purple border added to either side. The "wow factor" had gone far enough, the 6 metre warp was almost finished and there was enough for a little bag.

It would seem as if the tradition of demonstrating skill and competence by weaving a plethora of different patterns goes back a long way.

Tablets are found in different materials and sizes. Small tablets suit fine yarns and larger ones suit thicker yarns. Historic tablets are made of wood, bone, horn and leather: today there is a wider range of materials that are thin and strong, such as plastic, cardboard, plywood, metal, plexiglass.

The type of technique has a bearing on the size of the tablets. The weaver can turn the tablets in groups, one tablet at a time, flip the tablets, rearrange them, weave with two sheds. If turning all the tablets simultaneously, bigger tablets are required. If the pattern involves flipping or interchanging tablets, smaller tablets work better.

More complex techniques can involve turning certain tablets towards the weaver and others away from the weaver with each new shed.

There are different techniques with more or less fixed pattern forms. With double-cloths, the weaver is completely free to weave any kind of figure but is not assisted by the

technique as such to form patterns. For more variation, tablets with several holes or several sides can be used. There are finds of four-sided tablets with 5–8 holes. What these extra holes were used for we do not know now: it is just a matter of trying and seeing what happens. Lödöse Museum holds a fascinating find of a mediaeval four-sided tablet with 8 holes; Viking period four-sided tablets with various numbers of holes were part of the Oseberg find in Norway. When weaving more complex patterns, there are many different ways of keeping track of the turns made with the tablets. A lot of people chart out full patterns in squares using the computer. It takes a lot of time to draw out patterns, time that could be used for weaving, which is why I devised my own system for charting the complex patterns. For my diagrams, I use one square to mark the group in which a pair of tablets should be placed for weaving two picks. This then corresponds to 16 squares in a diagram where one square is used for each single warp thread and for each pick. I have not managed to make it any simpler than this.

BANDS WOVEN WITH THE RIGID HEDDLE

The rigid heddle is said to have come over from Asia during the Middle Ages. That it then pretty well took precedence over tablets is not too surprising: simple bands can be woven much faster and by picking up pattern threads, the technique for weaving complex patterns was suddenly something everybody could quickly learn. It is no coincidence then that patterns in the pick-up woven bands are very similar to those woven with tablets.

DURING THE 70's, band weaving became very popular mainly through the upsurge of interest in making folk costumes. A rigid heddle is not as simple to make as tablets, but not impossible with a good knife.

Rigid heddles decorated as engagement gifts were to be found all round the Baltic: in Sweden, the best known rigid heddles come from Hälsingland. The rigid heddle is a simple, practical piece of equipment which can easily be taken anywhere, such as to the summer pasture hut.



Louise Ström weaving with two groups of tablets. This band is in a French pattern from the 8th century.

Spångmurs sells booklets, instructions, equipment and materials as well as ready threaded tablets for beginners.

VM's book, *Start weaving*, contains a chapter on setting up and weaving with tablets.

Top left From the left, band loom from Årsunda with a warping frame incorporated on the back. Band loom from Leksand with a rigid heddle for pattern threads. Band loom from Ekshärad, a sturdy loom for weaving thicker bands with an upper strut to which pattern heddles can be tied.

Right Copy of a band from Birka. Pattern weft is silver thread. The original is dated ca 850.

Below left Woven bands mounted as a bracelet. **Right** Louise Ström weaving with a rigid heddle.



Threading the tablets.
A, B, C, D are the four holes,
one in each corner of the
tablet.

Follow the threading given
below, passing each thread
through the respective
tablet in the direction shown
in the square.

Instructions are available at

spangmurs.se



	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
	Z	S	Z	S	S	S	S	Z	S	S	S	Z	S	S	S	Z	S
A																	
B																	
C																	
D																	

TABLET WOVEN SANTA TAPE

- Number of tablets: 17
 - Width: 30 mm
 - Warp: green, black, red, white, pink and grey 2-ply Gästrike yarn from Järbo yarn.
 - Weft: green 2-ply, as for the warp.
- Nr. of ends/warp sequence
- green 8
 - black 31
 - red 19
 - white 5
 - pink 3
 - grey 2
 - Total: 68

Weaving: weave 4 picks turning towards you (left side of the Santa), weave 4 picks turning away from you (Santa's right side).

Change the turning direction after doing the line of squares marked A and D.

THE RIGID HEDDLE produces a plain weave, i.e. there are two sheds. To produce other patterns than stripes, pattern threads are raised or lowered, reveal or concealing them. This can be done in various ways:

- 1 or 2 ground threads between each pattern thread will produce various effects.
- there are special rigid heddles with extra holes and slits incorporated in different ways to facilitate pattern weaving.
- several different pattern threads can be included and selected as desired.

FOR THICKER BANDS, there are techniques whereby two rigid heddles are threaded one behind the other. Formerly people were able to vary patterns, even saying in certain parts, "I'm making up a pattern".

WITH PRACTICE, it is relatively simple to weave old patterns from an original, as the technique is very fixed, with the pattern usually shifting one step sideways.

BAND LOOM

A band loom speeds up band weaving. Older band looms are based on the same principle as weaving with half heddles or looped string heddles round a rod. More recent models may have separate heddles and pedals, similar to a regular loom.

The pattern can be picked up but the threads are positioned quite close and are hard to see: it is simpler if each unit is gathered into a heddle that is raised or lowered, or if the pattern threads are passed through a rigid heddle to then be picked up more freely.

On a band loom increasing the number of ends is simple: just tie on more heddles. There are many different types of band loom: with full or half heddles, pedals, several shafts, table or floor versions, where the weaver sits to the side or at a short end, wheels with ratchets for the warp and woven section of the band or just rods for setting up a warp as on an inkle loom, which was invented in the 1900.

Instruction videos at spangmurs.se