



# weaving



## what is it?

It's a way of making cloth/textiles using spun fibre on some sort of loom (although sometimes unspun fibres can be used - on a peg loom, for example). The vertical threads are called the warp, and the horizontal threads that are woven through them are called the weft. The warp is made on the loom, and tied to it in different ways, depending on the type of loom. The warp is tensioned and threaded through a 'heddle'. A space (or a 'shed') has to be made in the warp to allow the weft through. This is done by raising or lowering the heddle, then the weft is threaded through the shed, either by hand or via a shuttle or bobbin loaded with yarn. Then the next shed is opened, and the weft passed back through for the next layer. This process is repeated until the fabric is the size you require, after which you cut and tie the warp, and you have your finished piece of woven fabric.

There is evidence of weaving going back to the stone age, but textiles are biodegradable, so it's unusual to find preserved pieces. Every culture had or has its own style of weaving. Here are some different types of loom.

**Peg loom:** very simple - you have a board with 9mm holes drilled into it, then 15cm pegs with holes drilled through them are inserted into the board. The warp threads are passed through the holes in the pegs, the weft is woven around the pegs to the top, then the pegs are removed, the item pulled down onto the warp, the pegs replaced - and so on, increasing the size of the item each time. Peg looms can be used to make peg loom rugs, seat mats or bags with unspun fleece.



*peg loom weaving session.*



*plain weave cloth showing warp & weft threads*

**Backstrap loom:** from South America, they are the width of a human. The ends of the warp are tied to a post or a tree, and a strap goes round your back. As you lean back, it tensions the warp, then you use the heddle in front of you and weave the weft with a bobbin. Colourful patterned textiles are made this way in Guatemala and Peru.

**Navajo looms** are large, usually upright, native American looms. **Inkle looms** are narrow, for making belts or thin strips of fabric. The **Ashford knitter's loom** (and some others) are based on a rigid heddle and frame. The **Brinkley loom** is a wooden frame with a non-rigid heddle. It has a unique way of 'warping up', which takes about 10 minutes. This is the great benefit of a Brinkley loom - if anything puts people off taking up weaving, it's the length of time required to prepare the warp.

**Floor/treadle loom:** larger looms with different pedals to change the shed - i.e. to lift various threads depending on the kind of pattern you want. **Table looms** are similar to floor looms, but smaller. Inevitably, handlooms began to be outnumbered by power looms by the mid-19th century, and now most fabrics are produced on an industrial scale in large factories.

## what are the benefits?

- you can produce useful items for yourself, your family and friends
- your items will be unique
- you can contribute to your local economy by setting up a cottage industry and selling a few pieces
- you can control your raw materials, so that only natural, organic fibres and dyes are used
- it's an interesting, fun thing to do, and you can gain and pass on useful skills



- as with all LILI topics, it's a small antidote to the bland near-monopoly that large corporations have over the necessities of life

## what can I do?

It's not possible to explain exactly how to do it with words and pictures - you really have to have a go. See LILI's website for weaving courses around the UK. A simple way to practice weaving, or to demonstrate it to children, is to make notches on a piece of cardboard, or use a picture frame with nails at both ends - make the warp on the notches/nails and thread the weft through with a needle.

If you do decide to take up weaving, you can make a huge range of household items - blankets, shawls, scarves, ponchos, cushions, bags, rugs, chair covers etc. First choose a loom (see above). A peg loom is simplest, and doesn't have a heddle. You can make peg loom rugs with unspun fleece. A Brinkley loom is good for speed, but a treadle loom or table loom can make larger fabrics - although Brinkley-made pieces can be sewn together to make larger pieces.

You can also make your own loom - a peg loom easily; or a backstrap loom with a heddle made from lollipop sticks. You can make a Brinkley frame but not the heddle. Fibres you can use include wool; flax (for linen); hemp (hemp cloth); cotton; silk; nettle (there's a lot of nettle fibre spinning and weaving in Nepal). If textiles really interest you, you can make your own yarn for weaving, by carding fleeces (or even shearing your own sheep) or growing and processing natural fibres, then spinning and dyeing them yourself too.

You can make a scarf in a day, or a blanket in 3. If you account for your time, items will appear quite expensive; but it's the same for many other LILI topics. Why grow veg, knit your own socks or make your own furniture, when you could work in paid employment, and buy those things from a supermarket? Alternatively, maybe money shouldn't be the measure of everything - it's more about the pleasure of producing useful items yourself. Patterned fabrics are beautiful, but you need to be quite mathematical and meticulous. They're not essential though -

without patterns, you have more freedom, and it doesn't have to be done perfectly.

There are different kinds of weaves. In a plain weave the weft goes over and under each warp thread (a balanced plain weave has warp and weft threads of the same thickness, making a simple square pattern). In a twill weave the weft covers several warp threads to make a stronger fabric like denim. And in a satin weave, the weft passes over even more warp threads to produce a smooth fabric. If the weft completely covers the warp, it's called a tapestry weave. The warp doesn't affect the colour, and so pictures can be built up more easily.

Another simple, ancient weaving technique is card weaving, for making belts or strips of fabric. The card is turned to make different patterns. Again, very difficult to explain how to do it with words - but if you're lucky, you'll find someone to show you.

## resources

- see [lowimpact.org/weaving](http://lowimpact.org/weaving) for information, courses, suppliers and books, including:
- Deborah Chandler, *Learning to Weave*
- Jane Patrick, *the Weaver's Idea Book*
- Association of Guilds of Weavers, Spinners & Dyers, [wsd.org.uk](http://wsd.org.uk), promoting craftsmanship in weaving
- Plant Dyed Wool, [plantdyedwool.co.uk](http://plantdyedwool.co.uk), Brinkley looms



a Brinkley loom warped up and ready to go.

Contact us or visit our website to find out more about our message, networks, factsheets, books, courses, products, services, magazines, links, forum, events and volunteering on organic farms.

You can also become a Friend of LILI, receive our e-newsletter, and help us change the world.

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