Instructions for Warping a Loom
Back to Front Method
by Louise French

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Step I  Measure the Warp

1. Make a guide string by cutting a piece of yarn 12 inches longer than the length of a warp end. Tie a loop in one end and slip the loop on peg 1. Create a path similar to the one shown in figure 1. Tie off on the last peg, in this example, peg 6. This is the path to follow when measuring the warp.

2. Tie the warp yarn to the last peg following the path of the guide string. Move to pegs 5, and 4. Make the first half of the cross by going over peg 3, then under peg 2 and 1. Peg 1 is the turning point. On the return path go over pegs 1 and 2 and under peg 3. Continue the path of the previous warp to peg 6. Figure 1

   Note: TWO warp ends have now been measured.

3. Continue measuring the warp, following the same path. When you have measured the number of warp ends for one inch (epi), tie this group of warp ends together tightly between pegs 1 and 2. Be sure to tie both the top and bottom layers together, forming a loop or sleeve between peg 1 and the tie. Photo 1

4. Continue measuring the warp and tying in one-inch bouts until the needed number of warp ends are measured. The last bout may have less ends. Photo 2

   Note: When more than one warp chain is needed, tie the last bout of the first chain and the first bout of the second chain with a unique color. Match these colors when placing the chains on the warp rod.

5. Watch for knots in the warp. If you find one, cut it out and tie onto the measured warp with an overhand knot at peg 1 or 6.
6. When the warp is completely measured, tie the warp using carpet warp in the following places:
   a. Each leg of the cross.
   b. Through the bout loops at peg 1.
   c. Every yard of the warp beyond the cross, using very tight choke ties. Photo 3
   d. Both the top and bottom warp of the warp at the last peg.
7. Slip the warp off peg 6. You may cut the warp now or wait until you are ready to thread the heddles. Chain the warp as you remove it from the board. Photo 3

**Step II  Prepare the Loom**

1. Center a raddle on the back beam and attach it securely with masking tape or cord. Photo 4
2. Push the heddles on each shaft to either side.

**Step III  Bring the Warp Chain to the Loom**

1. Lay the warp chain(s) through the open space in the shafts, with the bout loops at the back of the loom. Photo 6

3. On each side of the castle thread two strong cords, about 24 inches long, around the horizontal support or on the last shaft. Tie the ends of the cord together, creating a loop 10-11 inches long. You will use this loop in Step III. Photo 5

4. Remove the reed and if easily done, the beater, from the loom.
2. Slip a lease stick through the legs of the cross(es) closest to the front of the loom. Photo 7

3. Using a lark’s head knot, attach this lease stick to the two cords that were earlier tied to the castle. Photo 8

4. Slip the second lease stick through the other half of the cross(es). Tie the sticks securely together leaving about a one-inch space between them. Remove all the ties holding the cross. Photo 9

Step IV Spread the Warp Across the Back Beam

1. Slip your hand, left if you are right handed, right if you are left handed, through the loops of the bouts, being careful that all the loops are cleanly over your hand. Photo 10

2. Remove the tie holding the bout loops.
3. Working from right to left if right handed, or left to right if left handed, remove one bout at a time from your hand, turn it one-quarter turn to the left and place over a peg on the raddle. Continue until all bouts are in place.

Note: The warp should be centered on the raddle. Photo 11

4. Bring the back tie-on rod up to the raddle. Check to make sure the rod is parallel with the back beam. Adjust as needed. Photo 12

5. Note the number of bouts that will fit between each of the cords holding the back rod to the loom. Remove the back rod from the cords.

6. Carefully remove one bout at a time from a peg on the raddle, turn it one-quarter turn to the right if you are right handed, to the left if you are left handed and slip it onto the rod. Replace the tie-on cords in turn. Continue until all the bouts and tie-on cords are on the back rod. Photo 13

7. Reposition the bouts, this time placing one between each of the pegs. Check to see that the warp is centered on the raddle. Photo 14
8. Stretch rubber bands over the pegs of the raddle to keep the bouts in place. Photo 15

9. Wind the warp rod down to the warp beam to stabilize it.

2. When the warp is even or smoothed out, hold the chain firmly in your left hand, move to the side of the loom and using the crank, begin to beam the warp. Watch the warp threads as they pass through the lease sticks. If there are tangles, stop winding on, move to the front of the loom and again shake and pull the warp chain. Photo 17

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**Step V  Beam the Warp**

1. Move to the front of the loom. Pick up the warp chain at the first choke tie and vigorously shake and pull the chain to straighten the warp. If needed the warp may be plucked, but do not put your fingers in the warp and comb it. Photo 16

3. When the warp reaches the back beam, place sticks or paper into the warp to keep the layers of the warp separated. Photo 18

4. Continue winding on the warp, stopping to shake, pull and pluck the warp as needed. Remove the choke ties when they reach the breast beam. Stop winding when the end of the warp reaches the breast beam.
Step VI  Thread the Heddles

1. Move the cord supporting the lease sticks from the front lease stick to the back lease stick. This tips the cross toward the front of the loom and makes it easier to pick the warp ends from the cross. If needed, adjust the height of the lease sticks so that the cross is at about the same level as the eyes of the heddles. Photo 19

2. Remove or lower the breast beam. Adjust your seat so that you can easily see the eyes of the heddles and the cross.

3. From the heddles on the right side of the loom, count out the number needed on each shaft for the first half of the project. Move these to the center. If you are left handed, you may find it easier to begin on the left.

4. From these heddles in the center, count out the number needed for the first inch, or logical group of threads. Count out the same number of warp ends, leaving them in the cross. Lay these ends between the counted out heddles and those remaining in the center.

5. Using your fingers or a threading hook and referring to the threading draft, thread this first group of heddles. If, when you finish, you have used all of the counted out threads and heddles, you can be confident that this group is threaded correctly. Tie the group in a loose overhand knot.

6. Remove the lease sticks and raddle when the threading is completed. Photos 20 & 21
Step VII  Sley the Reed
You may sley the reed either by laying it flat or supporting it in the beater.

Laying Flat Method
1. Replace the breast beam and beater. Select the correct dent reed.
2. Place a long stick (lease sticks work well) on either side of the threaded heddles, resting one end on the back beam, the other on the breast beam.
3. Slip a large rubber band on the stick, stretch it under the breast or back beam and bring it up over the stick. Repeat this on both ends of both sticks. Photo 22
4. Lay the reed across the sticks. Photo 23
5. Find the center of the reed. Measure to the right if you are right-handed or left if you are left handed, one-half of the “in reed amount.” This is the point at which you will begin sleying the reed.
6. Working right to left or left to right if you are left handed, take each warp end in its turn and using a sleying hook, bring it up through the reed. Once ~ 2” of warp has been sleyed, tie in a loose overhand knot. Photo 24
   Note: Some people find it easier to draw the warp end down to under the reed.
7. Continue until all the ends have been sleyed.
8. Carefully remove the sticks and place the reed into the beater, making sure the warp is centered in the beater. Secure with the beater cap. Photo 25
In Beater Method

1. Secure the beater in an upright position by tying one end to the castle and the other end to the front beam. Center the correct dent reed in the beater. Photo 26

2. Find the center of the reed. Measure to the right if you are right-handed or left if you are left handed, one-half of the “in reed amount.” This is the point at which you will begin sleying the reed.

3. Working right to left or left to right if you are left handed, take each warp end in its turn and using a sleying hook, bring it through the reed. Photo 27

4. Tie groups of the sleyed warp in loose overhand knots.

5. When the reed is sleyed, remove the ties keeping the beater in an upright position and rest against the castle.

Step VIII Tie onto the Front of the Loom

1. Untie the loose overhand knots.

2. Bring the tie-on rod up over the breast beam, ensuring that it is parallel to the beam. Adjust if necessary.

3. Take a one-inch group of threads, stroke them to even the tension, then tie onto the front rod bringing the threads over the top of the rod, splitting the group in half and bringing the tails to the outside. Photo 25

Begin at the selvedge edges, working back and forth to the center.

4. As you tie on, check that the most recently tied group is the same tension as the adjacent one. If the outside bundles become loose, tighten the warp beam a click or two. You may need to do this 2 or more times depending on the width of the warp. Photos 28-30
5. When the entire warp is tied on, check to see that the tension is even by running your hand back and forth across the warp. Adjust the tension, as needed, by holding a tail of the knot in each hand and with your thumbs push gently toward the beater. Do this working again from side to side. When the tension is even, tie the second half of each knot. Photo 31

Step IX  Prepare to Weave

1. Raise each shaft, one at a time. Look at the shed that is created to see that it is “clean”. If you see threads suspended in the middle of the shed, this means that a thread is twisted with its neighbor. Either a thread has passed on the wrong side of the adjacent heddle, or it has been sleyed in the reed in the wrong order. Untie the bundle that contains the floating threads and correct the error.

2. Following the draft, tie-up the shafts to the treadles.

3. To evenly space the threads in each bundle and take up any slight tension differences within a bundle, weave three shots of plain weave without beating. Photo 32

4. Close the shed and beat all three shots at once. Photo 33

5. Throw two or three more shots, this time beating after each shot.

6. Weave about one inch of plain weave to become accustomed to the feel of the yarn and to check for threading errors. You are ready to weave.