The LACIS TAPESTRY TABLE LOOM incorporates a novel shed changing device which automatically changes the position of warp threads to form either of two sheds or a no-shed position. Any of these selected positions is automatically held in place once set. The open-shed is a full 1-1/2” at the heddles permitting the feeding of weft threads either by hand or shuttle. The loom also incorporates an integral warping frame for the preparation of the warp and a tension control system for easy adjustment of warp tension. The loom is of finished solid Oak, yet light in weight, easily assembled and disassembled, and sturdy enough for projects from rugs to lace weaves using yarns from heavy cords to the finest threads. Any single piece can be made up to 20” wide by 60” long using the standard warping procedure described herein. Longer pieces can be worked using more advanced techniques. The loom is designed to be used with the accessory LACIS “Sit-or-Stand” Floor Stand which permits weaving in any inclined position, sitting or standing, and which will also support frames for bead weaving, embroidery and quilting.

PARTS
2 30” SIDE FRAME BARS with PEGS  4 Wood KNOBS for securing frame
2 24” BACK/FRONT FRAME BARS  2 Hexagonal HEDDLE ROD SUPPORTS
2 Long large HEDDLE RODS  2 Notched LEG BARS
2 Short small WARP RODS

ASSEMBLY
Join the four FRAME BARS together using the four KNOBS following illustration. Be sure the position of the PEGS on both side bars correspond. Set the BACK and FRONT bars so they are vertical with the extending side facing upward, the top of these bars being slightly above the SIDE FRAME BARS.
WARPING

Give yourself time and go slow. If not done correctly, you will end up with a tangle of yarn and loss of all enthusiasm for weaving. The technique described is a simple technique but you must follow the directions carefully. Warping yarn should be selected primarily for strength as the weaving process puts much stress on these threads, a smooth cotton is suggested such as DMC “Baroque”. In most tapestry weaves the warp is hidden and color is not important. If the warp will be exposed, color will be important and you might want a cord such as DMC “Cebelia” which comes in a range of colors. To determine the number of warp threads that will be required, multiply the number of threads per inch that the project requires by the width in inches and add 2. Thus if you want to make a 12” scarf having 6 warp threads per inch, 74 threads will be required. This will allow a double warp thread along both edges of the weaving. If using medium weight yarns, a 4 to 8 threads-per-inch warp would be typical. The pegs on the underside of the loom, serve as a warping frame which will handle 100 to 150 warp threads.

1. Turn the FRAME upside down, the pegs pointing up. The warp will wrap around selected pegs as determined by the warp length desired. The warp should be at least 12” longer then your finished project as a weaving shed is not easily formed when the weaving nears the end of the warp. Determine which pegs to use by cutting a cord twice the desired warp length and, starting at Peg “A”, wrap it around different pegs, so the other end returns to the starting peg. A figure “8” must be formed on the end adjacent to the starting peg. This cord can remain in place as your warping guide.

2. Tie a loop on the end of your warp cord and slip it over Peg “A”. Wrap the threads around the selected pegs so each consecutive thread goes to the right and then to the left of the peg adjacent to Peg “A”, forming the necessary figure “8”. Each time you return to Starting Peg “A”, 2 warps formed. In winding, keep uniform tension cord and make sure the threads lie parallel and overlap. When the correct number of threads been wound, cut the end, allowing enough to tie into a loop which you will slip onto one of the end pegs. The figure “8” crossing at the end to keep the warp threads in sequential order transferring to the loom. To keep track of your warp threads, it is suggested that you tie a loop around each group of 20 threads.

3. Tie a cord, making a loose loop through the “8” end crossing. You will now use the two short WARP RODS and the two long HEDDLE RODS to transfer the warp. Place one Short and one Long Rod through the end loop at the
figure “8” end (Peg “A”). Place the other Long Rod on the other side of the figure “8” and tie the two long rods together with rubber bands on each end. Put the other Short Rod through the loop at the end Peg on the other end of the warp. Slide the warp end loops onto the rods and remove the warp from the frame. Lay the extended warp on a flat surface so it is centered on the rods.

4. Lay the FRAME, lengthwise, over the center of the warp, pegs pointed up, the end with the single peg at the warp end with the figure “8” loop. Bring the two WARP RODS together, over the FRAME, and, using the elastics, join them together at each end with the distance between the elastics equal to the width of the weaving.

5. Secure the two long rods to the frame at a pair of posts using 2 elastics. These two rods will keep the threads aligned till the warps are uniformly spread out. Remove the figure “8” string tie and space the warp uniformly across the warp rods. Remove the ties securing the long rods to the frame and draw the two long bars through the warp, from one end to the other, to align the warp threads.

6. Using a strong cord, tie one end on to one of the WARP RODS and lace the two WARP RODS together, with approximately 2” between each wrap. Tie off this lacing cord to either warp rod and readjust lacing so WARP RODS are straight and parallel to the FRAME and the warp is taut. Retie the lacing cord if necessary. Be sure to leave a good length extending from the end of this lacing cord as this cord will generally need to be readjusted as the work proceeds. The elastics can now be removed.

7. The FRONT FRAME BAR is the bar near the single peg in the SIDE FRAME BARS. Turn FRAME over, pegs pointing down, and rotate the warp so the lacing cord goes around the FRONT FRAME BAR and the WARP ROD lays just in front of this BAR. Weaving will begin against this ROD. The warp is easily rotated if the FRONT and REAR FRAME BAR are pivoted inward, loosening the tension. Position the two long bars above the WARP ROD. Replace each rod with strip of stiff paper approximately 2” wide. This will keep alternate threads separated and facilitate selecting threads when attaching heddles.

8. To uniformly space your warp, use your hand and a length of cord to crochet a CHAIN spacer. Form a crocheted CHAIN across the top layer of warp threads approximately 2” above the WARP ROD, securing each end of the chain cord to the SIDE FRAME members. Treat the end two warp threads at each edge as one. Adjust your crochet stitch so the warp threads are spaced as required. If necessary, additional stitches can be added between warp threads. Untie the chain from the Frame and, using a beater or comb, push the CHAIN down against the WARP. Retie the chain ends to the FRAME. After completing several rows of plain weaving, the chain spacer can be removed.
HARNESS ASSEMBLY

Prior to your initial weaving you will need to prepare heddles, one for each warp thread. These can be reused, simplifying subsequent weaving projects. The same thread as used for the warp can be used.

Alternate warp threads will be attached to alternate HEDDLE RODS. The warp threads laying on one of the inserted strips will be connected to one rod and the threads laying over the other strip will be connected to the other. Cut 10” lengths of heddle cord for the back heddle rod and 11” lengths for the front heddle rod, one for each warp thread. This is easily accomplished by loosely wrapping the cord around a piece of cardboard 5” wide for the 10” heddles and 5 ½” for the 11” heddles, being sure not to overlap successive loops. Cutting the formed coil will form uniform lengths. Tie each of these threads into uniform loops with the knot close to the end.

Starting at one end of the warp, lay one 11” loop under every warp thread on the front paper strip in sequence, feeding the two raised loop ends of each heddle onto the front HEDDLE ROD. Proceed in a similar manner with the warp threads on the back paper strip, using the 10” heddles, and looping them onto the back HEDDLE ROD.

When all warp threads are secured to the HEDDLE RODS, place one of the large ELASTICS on one end of one HEDDLE ROD and the other ELASTIC on the opposite end of the other HEDDLE ROD. Slide the HEDDLE ROD SUPPORTS onto the two HEDDLE RODS, one on each end, so they sit directly on top of the SIDE FRAME BARS just past the center of these bars. Loop the elastic under the FRAME BAR and onto the alternate extending HEDDLE ROD. The assembly is now secured to the FRAME yet free to rotate in a rocking manner.

If correctly assembled, a “SHED” will be formed when the assembly is rotated in either direction from its horizontal position.

OPERATION

The loom can be used directly on a table or, for maximum flexibility, on the Lacis FLOOR STAND. If working on a table, be sure the loom is set up so the single peg on the side frame bar is the front of the loom. Use the notched LEG BARS to position the loom in a sloping position. Place the notch of each leg onto a side frame bar, from the outside, just beyond the peg closest to the center, and loop an elastic around the LEG and FRAME BAR to keep it in place. Place the front warp pegs over the edge of the table for a comfortable weaving position. If using the FLOOR STAND, the slope can be maintained in any position by adjustment of the CAMS.

Pivoting of the two HEDDLE ROD SUPPORTS, back and forth, one in each hand, will form alternate sheds, changing the relative position of all alternate warp threads. With the HEDDLE ROD SUPPORT horizontal, no shed is formed and all warp threads are aligned. Most finger and lace weaves are worked with the warp in this position while tapestry and tabby weaves use the open shed positions. Always rotate both supports simultaneously, holding one in each hand. If you have difficulty holding these supports, the same rotating action can be achieved by grasping both HEDDLE RODS at each end, inside the supports, and making a similar action. This is a suggested method when narrow pieces are woven.
To change the FRONT SHED (FRONT HEDDLE ROD UP) to the REAR SHED (REAR HEDDLE ROD UP), push the HARNESS ASSEMBLY slightly away from you as you rotate the supports. To change from REAR SHED to FRONT SHED, reverse this motion by pulling the assembly towards you as you make the rotation. These motions will soon become automatic as the first few rows are completed.

Basic weaving, often referred to as either tapestry or tabby weave, is simply accomplished by passing a free thread or yarn, referred to as the WEFT, back and forth through alternate sheds in continuous fashion. Designs are formed primarily by color change. More advanced techniques involve a variety of stitches which add texture to the basic color tool. This offers such possibilities as shag or “Rya” rugs as well as open work for lace curtains.

All weaving is done on the lower half of the FRAME, in front of the HEDDLE ASSEMBLY. As weaving progress, the HARNESS ASSEMBLY can be moved up as necessary. It should never be less then 6” above the edge of the weaving. When the weaving nears the center of the FRAME, release the warp tension (see below) and rotate the entire warp so the leading edge is again near the FRONT FRAME BAR.

Note: The wrap-around warp provides a lower layer of threads which will support a full size cartoon of your design, making it easy to follow your pattern. If not working with a cartoon, it is suggested that you place a piece of paper on this lower layer so only the top working warp is viewed.

WARP TENSION

Warp tension is critical for controlled weaving. As weaving progresses, the warp will naturally tighten as it is forced into an undulating position. This will vary depending on the particular weave. A warp faced weave (where the warp is prime visual element) will have maximum take up, while a weft faced weave (where the warp is hidden) will have virtually no take up. A tabby weave, where warp and weft are equally exposed, will have take-up between the two. Required warp tension will be different for each of these weaves.

The FRONT and BACK FRAME BARS are mounted eccentricly to the SIDE FRAME BARS. With the BARS vertical, in the up position, adjust the LACING CORD for proper tension.

When not weaving, it is a good practice to reduce tension on the warp threads so they will not stretch. This is simply done by rotating the FRONT and/or REAR FRAME BARS. the top going towards the center of the loom. Likewise, to rotate the warp, tension is easily reduced by rotating both bars inward as necessary. For tension control beyond the movement of these bars, adjust the lacing cord.

At completion of weaving, remove the HEDDLE ROD SUPPORTS and pull out the HEDDLE RODS, releasing the heddles. Undo the lacing cord and the finished weaving will be free of the Frame. Pull out the WARP RODS and finish the weaving ends. The ends can be finished by simply cutting the extending warp loops and tying these warp ends together in pairs or groups against the end weaving rows. They can then be cut off, made into fringes or woven back into the work with a needle.
TOOLS AND ACCESSORIES

A TAPESTRY COMB or BEATER is probably the most useful tool you will need. This is used to push or beat the weft threads into place after they are passed through the warp threads. A heavy wooden comb with wide spaced smooth tapered teeth is recommended for this operation. A short metal tooth dog comb is also suited for this operation.

To pass the weft yarns through the warp threads, several tools are commonly used depending on the specific weaving technique. TAPESTRY BOBBINS are usually of wood with a pointed end and a recessed end onto which the yarn is wound. These are popular when small amounts of lots of different colors are used in small areas. Plastic or cardboard thread winders can likewise be used to manage the threads for this type of work. When passing threads through an open shed a SHUTTLE will speed the process considerably. These are available in various lengths and you should have some the length of which is equal to the width of your piece. Ideally each color and thread type will have its own shuttle or winder. For working in small or tight areas a 6” BENT TIP NEEDLE will satisfy most requirements. For lace or leno weaves, A LENO or LOCKER NEEDLE will facilitate the manipulation of the warp threads.

The LACIS FLOOR FRAME, offers many options for positioning the loom. It allows rotation of the FRAME to any sloped position and allows full rotation, facilitating the preparation of the warp. The stand is can be adjusted to any height for sitting or standing. It is easily assembled and disassembled without tools and, when disassembled will form a compact bundle for storage or travel.

REFERENCE


TAPESTRY WEAVING, Nancy Harvey.

LACIS
Berkeley CA