Be sure to tell advertisers you saw them in The Weaver's Journal

The Mannings
FALL SEMINAR
October 30, 31 & November 1, 1979

Featuring
Clotilde Barrett
Albertje Koopman
Betty Atwood

For more information, write or call

The Mannings
Creative Crafts
R.D. 2, East Berlin, PA 17316
Phone Area Code 717 624-2223
HANDWEAVING SCHOOL & WEAVER'S SUPPLY CENTER

List of Advertisers

The J. & H. Clasgens Co...............p. 48
The Cotton Squares..................p. 4
Holroyd, Ruth.........................p. 24
The Mannings........................p. 2
Ramus, Katherine....................p. 17
Romni Wools and Fibres Ltd.........p. 33
W. Salsbury Associates, Inc........p. 2
Some Place..........................p. 3
Southern California Handweavers' Guild, Inc..............p. 28
The Weaver's Market................p. 47

*PRICE INCLUDES POSTAGE,
*NC RESIDENTS ADD 4% SALES TAX.
Order From
W. SALSbury ASSOCIATES, INC.
608 MADAM MOORE'S LANE
NEW BERN, NC 28560
Table of Contents

List of Advertisers .............................................................. 2
Letter From the Editor .......................................................... 4
Shaped Sculptured Rugs - A Workshop With Urban Jupena ........... 5
The Business of Weaving - An Interview With Elaine P. Nixon by Mary Derr ............ 10
Multiple Harness Crackle ...................................................... 15
Children's Corner: A Picture Frame Tapestry by Ellen Champion .......... 19
Rag Rugs ........................................................................... 22
Corded Weaves - Four Harness Cross Cords ......................... 25
Backed Cloth on Four Harnesses ......................................... 30
Handwoven or Leather Flowers by Iris Richards .............. 34
The Spinning and Use of Dog's Hair by Dorothy M. Pohole .......... 36
Book Reviews .................................................................. 41
Netted Hammock ................................................................. 43
Weaver's Market ................................................................. 47

Editor and Publisher - Clotilde Barrett
Assistant to the Editor - Mary Derr
Advertising - Nancy Coughlin
Photography - Earl Barrett and Ellen Champion
Staff Artist - Ellen Champion
Manager - Maxine Wendler

The Weaver's Journal is published on the first of each January, April, July and October by Colorado Fiber Center, Inc. P.O. Box 2049, Boulder, Colorado 80302. Telephones (303) 449-1170 444-2088. Subscription rates are $9.50 U.S. Currency, for 1 year (4 issues) or $17.50 U.S. Currency, for 2 years (8 issues). (Colorado residents add 3½% sales tax). Outside U.S.A. 1 year $11.50 U.S. Currency. Copyright Colorado Fiber Center, Inc. 1979. Second class postage paid at Boulder, Colorado 80302, The Weaver's Journal USPS 384-210. The editorial committee takes no responsibility for the goods advertised in this journal.

Letter From the Editor

With this issue we are celebrating the beginning of our fourth year. This is an appropriate time to thank everyone for their support. The most valuable contribution that a reader can make to the editor of a periodical is to send from time to time a letter with some comments about the content of each issue. It is equally important that our readers share some of their weaving experiences with others. As the October issue of The Weaver’s Journal will feature cotton as a fiber for the craftsman we would like to hear from those of you who grow cotton, spin it, dye it and like to weave with cotton. Cotton is used to a great extent by fiber artists who do not weave as it lends itself well to surface decorations and to sewing. We would like to show samples of such works also. We want to hear from you about your favorite suppliers and what types of cotton they offer.

Now that the Weavers’ Journal Monograph on Summer and Winter is off the press, we are busily preparing one on Shadow Weave. We would very much like to hear from our readers who have used this technique to do Art-Weaving or from those who have used shadow weave successfully to make functional projects. We are asking for photographs and descriptions of fiber projects using Shadow Weave. Please write to us if you need more information.

Thank you,
Clotilde

WOVEN and OTHER TEXTILE MINIATURES

This article appeared originally in Volume I, Number 4 of The Weaver’s Journal. Due to great demand by readers, the article is now available in reprint form. To order yours, send $1.00 to The Weaver’s Journal, P.O. Box 2049, Boulder, Colorado 80306

hand spinning cotton

by Olive and Harry Linder

An authoritative guide for craftsmen interested in learning the secrets of cotton spinning, tools, preparation of fiber, scouring, mordanting, natural dye recipes, shrinkage formulas, uses of handspun thread, plus directions for building your own Charka wheel. 6 x 9, illustrated, paperbound 50 pp. $2.50 post paid. Dealer inquiries welcome.

To: THE COTTON SQUARES 1347 E. San Miguel Avenue Phoenix, Arizona 85014
Shaped Sculptured Rugs
—A Workshop With Urban Jupena

Three views of a sculptured wall piece in progress - project of Willy Bottema during the Urban Jupena workshop

Urban Jupena, who teaches at Wayne State University in Michigan, came to Boulder in 1978 to give a workshop on the use of weft-ikat for rugs. During his visit he also gave a slide lecture on sculptured rugs. He illustrated his approach to teaching the technique, the work of his students and his own sculptured floor, ceiling, and wall pieces. He created such an interest in sculptured rugs that he was invited to come back to give a 3-day workshop on that subject.

This is an article on that workshop. Such a report cannot be a substitute for a real work session with Urban Jupena himself. His concern with inspiration which he derives to a great extent from landscapes and the textures in nature, his concern with the creation of environments where space and light are of the greatest importance, can only be appreciated by listening to him and seeing his work. Yet, the technical approach to the making of sculptured rugs is fascinating, and will no doubt give the weaver new ideas on how to express certain concepts with fiber.

The plan of the frame loom, Fig. 1, was made available ahead of time so that before the workshop, each student was ready with a dressed loom.

WARPING: tape the lease sticks to the sides of the frame in the upper half of the loom, about 2" apart. The length of the warp threads is determined by measuring twice the height of the loom, plus 4". Warp is 10/2 (or 10/5, 8/5, 8/2) linen sett at 6 epi, 20" to 30" wide. Take one thread, place over dowel rod, pull top thread to back and the back one to front over first lease stick. Then pull top thread to back and the back one to front over second lease stick. Do exactly the same with each thread. Repeat until you have desired width on the loom using 3 threads per inch. Tie the warp ends in groups of six to the bottom dowel bar.
Plan

Materials Needed and Construction

Loom and Upholstered Frame

The appropriate for the frame material, each side, to go on each compartment.

Also notes and dimensions.

9 x 6 " X 3/4 " plywood. Use. Frame work with screws through dowels.

Note through dowels.

Mark the sides of the determination ply. Then drill corresponding.

2. Measure 6" from each of the boards and 2 dowel rods and mark.

1. Work off 30 of the dowel rods into latches. Make darker mark in middle of each side, to go on each compartment.


Joiner, with screws through dowels.

4. Repeat for second piece of wood and dowel.

5. Insert carriage body in the through. 6" boards and dowel rods with wood screws through dowels.

6. Insert carriage body. In hole through 6" boards and dowel rods with wood screws through dowels.

7. Insert carriage body. In hole through 6" boards and dowel rods with wood screws through dowels.

8. Repeat through dowels.

Note through dowels.

Mark the sides of the determination ply. Then drill corresponding.

2. Measure 6" from each of the boards and 2 dowel rods and mark.

1. Work off 30 of the dowel rods into latches. Make darker mark in middle of each side, to go on each compartment.


Joiner, with screws through dowels.

4. Repeat for second piece of wood and dowel.

5. Insert carriage body in the through. 6" boards and dowel rods with wood screws through dowels.

6. Insert carriage body. In hole through 6" boards and dowel rods with wood screws through dowels.
To tie: go over front bar, split warp into two groups and bring forward on either side of the six threads, tie first half of square knot, continue until all the warp ends are tied. Then tighten and tie other half of square knot.

Place the six inch block with L brackets on to the side boards of the frame, mid-way. Use C clamp to hold bracket onto loom (C clamps should be under the blocks).

Place third dowel rod on the blocks, turn lease stick #2 on edge, tie a heddle on every thread on top of this lease stick. Note: a heddle is a strong thread that loops around a warp thread. The two ends of the heddle go over the bar, are split and are tied in a square knot.

After tying heddles, take out lease stick #2. Now you are ready to start weaving.

WEFT YARNS: ground weft - rug wool
pile weft - rug yarns in related family of colors (light to dark values).

STEPS IN MAKING SHAPED SCULPTURED RUGS

1. Construction of a plasticene (oil based modeling clay) model:

With 1/2 lb. of plasticene, students built a small clay model of a sculptured wallpiece. These looked like a relief map of a mountainous landscape. They were about 6" X 6" and the peaks reached about 1" in height.

Fig. 2

2. Drawing of a topographic map of the clay model:

The clay model was sliced in about 5 layers with a cheese cutter; see Fig. 3. The outlines of the upper cut of each layer are contour lines. The base of the model and the contour lines of each cross-cut are drawn on paper; see Fig. 4.

Fig. 3
Elevations are views of vertical cross sections of the model. When a cross section of the model is drawn, the weaver can determine the height of the contour lines.

3. Drawing of a full scale cartoon:

Fig. 4 is redrawn on a large piece of wrapping paper (or cloth) that has been marked with a 2" grid. Each line drawn on the 1/2" grid of Fig. 4 is transposed to the 2" grid of the wrapping paper, thus enlarging the drawing by a factor of four. The final project is approximately 20" X 24" in size.

In this full scale cartoon, areas are marked off to be worked with regular rya knots and upside down rya knots (Fig. 5). There is a transition row, one forward and one backward. These changes of direction in the knots will prevent some edges of the finished wallpiece from looking bare for lack of pile.

4. Warping the loom:

For the workshop the looms were warped ahead of time. Usually the loom would be warped after the full size cartoon has been made. The cartoon is taped to the front of the loom or is pinned to the woven part of the rug as the project is carried on.

5. Preparation of the weft:

The ground weft is wound on a shuttle. For the pile, bundles of yarn of different shades belonging to the same family of colors are assembled. Each of the 5 areas of Fig. 4 defined by contour lines will be worked with a different group of yarns. Area 1 with the darkest shades, area 5 with the lightest. The pile weft, made from a selection of 4 to 6 strands from a specific shade group is wound in butterflies.

6. Weave with a filler (rags) to even out the warp.

7. Weave a heading of about 6 rows (1/2") of plain weave with the ground weft. The ground weft should always be 'bubbled' to allow for take-up. The width of the heading is dictated by the width of the design area behind it. End the heading with the weft of the right-hand side.
8. Tie a row of rya knots (see Fig. 6). Each knot is tied over 2 warp ends. Gauge the length of the pile loop by studying the cartoon behind. Cut the loops after each row, again using the cartoon as a guide.

9. A bunch of 1/2" wide cardboard strips, cut from matboard should be on hand to weave the warp that is not used as part of the shaped wall piece. The width of the strip should be equal to the space occupied by the ground weft between the rows of knots plus one row of knots. The cardboard strips are always inserted on the opposite side of the ground weave shuttle, and in the same shed as the last pick; thus the first strip is inserted on the left-hand side.

10. Change shed, insert the ground weft from right to left, following the cartoon to determine how far. Put a strip of cardboard on the left-hand side, change shed, continue weaving the ground. Then tie another row of knots.

The shape of the weaving is modified while weaving the ground, never during a row of knots.

11. Finishing the sculptured wall piece:

The students worked hard and with great enthusiasm during the first two days (and nights!). For the third day, they had to be ready to finish off the piece.

The project is cut off the loom and the free warp ends are darned back in. Each end is darned back alongside the neighboring warp. See Fig. 7.

The final sculpturing of the pile is done with scissors (carpet weft-trimming scissors are recommended). The cartoon serves as a guide for the cutting.

The wall pieces have to be supported by a wire frame. To this end, a flexible aluminum clothesline, 1/4" in diameter, is bent according to the shape of the piece. The frame is attached to the weaving by alternately wrapping a portion of the frame and catching the edge of the project with a sewing stitch. This technique is similar to the one used in coiled basketry.

The final critique during which the students discussed their work with Urban Jupena was very helpful. The success of this type of piece depends to a great extent on the design and the use of color shades. Many students quickly developed ideas for their next sculptured textile project.
The Business of Weaving
– An Interview With Elaine P. Nixon
by Mary Derr

Elaine Nixon is an expert weaver. She is also a skilled business woman. She weaves primarily large wallhangings for use in commercial buildings and window panels for private homes. Her moderate five digit gross income is growing each year.

Elaine was born in Ohio. When she was a teenager, her family moved to Dallas where she attended high school and Southern Methodist University. After receiving a degree in mathematics, she taught junior high math in Berkeley. When she decided to seek a master's degree in math, she chose the University of Colorado. After receiving that degree, she taught at Metropolitan State College in Denver. She has two sons and is married to Tom Nixon, a Boulder architect.

Working with textiles has always interested Elaine. She did embroidery as a child and began sewing and designing her own clothes as a teenager. Later her hobbies included macrame and non-loom rugs. Then, in Boulder, she enrolled in a weaving class taught by Clotilde Barrett.

"All the things I'd enjoyed doing seemed to come together," she said. "I knew weaving was for me."

Elaine made some weed holders after the first class, took them to the Boulder Guild's sale, and sold them all. She began to weave rugs, pillows, and wall hangings. She contacted an interior designer recommended by a friend. Interest on the designer's part resulted in her first commissioned work. About the same time her husband's business went into a brief slump. Elaine went after work in a determined fashion. She had begun a serious career as a weaver.

Her commissions have included wallhangings for banks, real estate offices, the Westview Press building, and Samsonite Headquarters. Among her clients are the rich and the famous, such as John and Annie Denver, for whose home in Aspen she wove six window panels.

This year Elaine is realizing a dream she has had for several years. She is part-owner of an art gallery that will open soon in Boulder, showing many different forms of art. There will be room to display some of her commissions for brief periods before permanent installation, she said happily.

In the following pages we have asked Elaine to share some of the things she has learned in her weaving business.

Q. What helped you get started in this business?
A. I like people and enjoy working with them. It is fun to share my enthusiasm for weaving with clients and designers. I gained recognition through juried and small group shows. The commission for John Denver which I received early in my career helped my resume considerably. 

Q. How should a weaver begin to seek large commissions?
A. One must work with designers, i.e., interior designers and architects. Your slide presentation, portfolio, resume, and personal appearance and manner must be professional. Also, remember, "Less is more and more is less," as was explained in a portfolio seminar at the last HGA Convergence. You need to show only your good work. If you are well-dressed and arrive in a good car, your client can believe you are good at your work and successful. It is rare to get a substantial commission from a stance of desperation.

Q. How do you promote yourself to the public?
A. Juried, small group, and one-person shows add to one's resume and help make contacts with potential clients. Sometimes a client appears years after seeing your work at a show. I mail invitations to clients and potential clients, interior designers, architects, and friends.

Q. Is it important to use an art dealer to promote your work?
A. No. An art dealer is just one avenue for potential clients. Often they are willing to do the leg work to designers that you or shop owners cannot take the time to do. In the final analysis, you must engineer the promotion of your work. You must have confidence in yourself and understand your abilities and goals. Others have other artists to represent, other tasks to pursue. Communication with your contacts must be frequent.

Q. Do you still rely on designers for commissions?
A. Not as much as I used to. Now projects come to me from attendees of past shows, as I mentioned, and friends of past clients as much as the art consultant and designers with whom I work. The variety of contacts protects you from changing situations. Designers change firms, move to new
areas. At times of change, I usually ask myself, what would I do if all current contacts disappeared? Creative ideas for promotion usually occur at those moments.

Q. On a project from a designer, do they give you ideas?
A. I will not work up someone else's design idea. Sometimes they suggest colors. I gather as much information as possible on what colors, textures, equipment they are installing.

Q. Then what do you do?
A. I meet with the designer and client to get ideas of their tastes. Do they want a strong statement or a more subdued design? What is the size and function of the area where my piece will hang? Will people pass by or frequently linger near it? What style elements that I use does the client like -- representational, geometric or soft curves, sculptured forms?

Q. Do you always talk to the company head?
A. No, though I always ask to do so. When it is a large firm, the executives usually talk with the designer or art dealer only.

Q. Do you rush home and design the piece immediately?
A. Oh, no. I let the information I've gathered simmer in my subconscious creative level for a few days. Then I start sketching. I refine the best idea and present it to the client. A professional presentation usually includes a sketch in color with a minimal drawing of the immediate environment of the piece in scale, yarns and swatches of fabrics, floor and wall coverings to show coordination, and other points of presentation that the designer may want. It is helpful to see that designer's presentation methods also.

Q. You present only one sketch?
A. I concentrate my efforts on the refinement of one design. I once presented two sketches, since I thought they were equally good. The client picked the best elements of each which did not make a cohesive design. It was hard to talk my way out of the problem I created.

Q. Is your sketch always what the client wants?
A. No. Sometimes he doesn't like it, but that is usually the result of inadequate communication. When this happens, I go back and work on a different idea. My success has been in reaching the correct solution the first round.

Q. Do you find that working on commissions limits your creative work?
A. Not at all. I love the concentration involved in the production of a large commission. I am usually intrigued to try varia-

Plate 4
"Nearing Winter", 18" X 45" tapestry in whites, beiges, and browns, in Gary Klein's office in Boulder.

Plate 5 - Detail of typical surface textures used to create tapestry shapes.
tions in smaller form which occur to me as I work. Other times when I want to do something on my own, I make up a situation. I decide on the colors by picking some I haven't worked with for a while or some which blend with my home's decor. I limit the size of the piece by deciding on the price I expect to ask for the work.

Q. Tell us about your business arrangement with a client.
A. I charge a design fee for each sketch which is absorbed in the price of the project or is paid if I don't get the commission. When I get a commission, I ask 40 percent of the contract at the beginning and in return I give a guaranteed completion date. The remainder is due upon installation. Each weaver must work out a basic agreement. It should include terms that protect both the client and the weaver, yet be as simple as possible. Each project has individual points to be added. It is professional to have a written agreement ready to give a client. If you rely on verbalizing it, there is the danger that someone may forget an important point. I try to contract directly with the client and pay the commission to the contact person. The book, *This Business of Art*, by Diane Cochran has many helpful points. It is important to set aside a specific time each week for business details.

Q. Do you do all the work?
A. I employ two part-time apprentices. They usually work at their own homes on the production work. Often when I work on my "Super Salish" loom, I ask one to weave side by side with me.

Q. What is a "Super Salish" loom?
A. The vertical Salish loom consists of two horizontal bars which support the warp. The Salish Indians' unique tensioning device consists of a set of wedges that spread the warp supports apart. My tensioning device is a pair of "all-threads"
(long machine bolts) through the bottom pole and into a special wood support, for my loom is 9 feet by 9 feet overall with five foot base supports. The continuous warp begins and ends on a third pole which I move to position the work at optimum comfort level for weaving. This warping method yields nearly 17 feet of warp. I can also use a heddle bar and weave in Navajo fashion.

Q. What other equipment do you use?
A. I began with a 24" eight harness portable Macomber loom. Then I bought a second-hand four harness loom for its 45" width. Eventually the 45" width was confining, so I bought a 52" twelve harness loom from Thought Products, and finally, I had my Super Salish loom made. Tom drew up the plans and a furniture maker built it for me.

Q. What problems have you had?
A. Well, I had to create the Super Salish loom for the Samsonite Headquarters project. But most of the problems have been in installing the work. Luckily, my husband likes to work with me on these engineering problems. Our experience now reassures us that we can solve anything.

Each set of window tapestries has its own unique problems of making them operable. The hardest situation was the set of slanted windows in John Denver's home. I put drapery tracks on each side of the window beams so the panels could be raised and lowered by sliding them on these tracks. The beams are irregular which made routing a challenge. Two of the panels are inaccessible without a ladder. We had to install electric motors to raise and lower those.

Installing the sculpture in the Westview building was particularly difficult. The piece consists of three cylinders and a curved plane. (See cover photo). The cylinder forms are sona tubes for making concrete pillars which are quite heavy in themselves. The sculpture is approximately 8 feet wide, 16 feet high, and 3 feet deep. It was intended to hang from the drop ceiling which has a delicate structure. Instead, we had to anchor from the precast concrete roof panels above. The owner suggested we drill a hole through the roof and refill it. How could we rely on no water leaking on my hanging? We finally solved the problem by having my assistant fire anchors into the concrete with a stud gun while standing on top of 20 foot high scaffolding. That installation took three of us 10 hours.

The problems are a challenge and are part of the fun of this kind of work. My final reward is feeling the pleasure and gratitude of the client when the piece is in place. A tapestry or woven sculpture communicates warmth and beauty unlike any other medium.
Multiple Harness Crackle

Crackle may be extended to an eight (or more) harness threading. See Fig. 1.

![Diagram of harness threading]

Fig. 1

The warp end which balances the block has been circled. While in the classical way of weaving four harness crackle there are only two textures (areas where 3-end weft floats show on the surface of the cloth and areas where 3-end weft floats show underneath), the extension to multiple harness crackle is characterized by three different textures. See Fig. 2.

![Diagram of different textures]

Fig. 2

a. The pattern weft makes floats on top of the cloth.
b. The pattern weft makes floats underneath the cloth.
c. The pattern weft interlaces in plain weave.

With eight crackle pattern blocks, arranged in twill order as in Fig. 1, two adjacent blocks will have the texture of a, two adjacent blocks will have the texture of b, and four adjacent blocks will have the texture of c.

Designs are created by varying the block sequences in the threading and by choosing treadling sequences which will vary the position of the three different textures.

Our sample of multiple harness crackle, woven with a balanced tabby ground, was not satisfying. The three texture areas do not contrast as strongly as in overshot and consequently the design was muddled and weak.

However, multiple harness crackle has great potentials for rugs. Weft face crackle does not have any tabby ground weft. Instead, two pattern wefts B and W are used and these are always woven on opposite sheds. In this case, the three different textures appear as in Fig. 3:
a - wide B stripes, narrow W stripes.
b - wide W stripes, narrow B stripes.
c - pick and pick effect with B and W.

The tie-up for 8 harness crackle is given in Fig. 4. The odd treadles are tied up for a $\frac{1}{2}, \frac{3}{2}$ twill, the even treadles are tied up for a $\frac{3}{2}, \frac{1}{2}$ twill.

Plate 1 - Multiple harness crackle by Iris Richards
All sixteen pattern treadles do not have to be used for the design on one rug.

Ten different rug designs are worked out in the sample illustrated in Plate 1. The designs have been separated by bands of plain weave.

WARP: 8/3 linen sett at 6 epi (25/10 cm).
WEFT: Singles (wool) in black (B) and white (W).

Fig. 5 shows the profile development and the thread by thread draft of the rug. Note that this threading only uses 6 blocks out of the possible 8.

Note also that when a block is skipped (between D and F), an additional warp end has to be added, which is threaded on the same harness as the first warp end of the missing block.

There are 135 working ends. The outer warp end is double through the heddle and the reed. A double floating selvedge has been added on each edge.
The treadling of the sampler is as follows:

<table>
<thead>
<tr>
<th>Treadling:</th>
<th>Tabby 3/8&quot;</th>
<th>Tabby 3/4&quot;</th>
<th>Tabby 1/2&quot;</th>
<th>Tabby 7/8&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>3 B</td>
<td>7 B</td>
<td>1 B</td>
<td>1 B</td>
</tr>
<tr>
<td></td>
<td>4 W</td>
<td>8 W</td>
<td>2 W</td>
<td>2 W</td>
</tr>
<tr>
<td></td>
<td>4X</td>
<td>3X</td>
<td>3X</td>
<td>4X</td>
</tr>
<tr>
<td>II</td>
<td>1 B</td>
<td>2 B</td>
<td>1 B</td>
<td>3 B</td>
</tr>
<tr>
<td></td>
<td>2 W</td>
<td>5 W</td>
<td>5 W</td>
<td>4 W</td>
</tr>
<tr>
<td></td>
<td>2X</td>
<td>7X</td>
<td>7X</td>
<td>2X</td>
</tr>
<tr>
<td></td>
<td>3X</td>
<td>5X</td>
<td>11 B</td>
<td>12 W</td>
</tr>
<tr>
<td></td>
<td>6 W</td>
<td>2 W</td>
<td>12 B</td>
<td>12 W</td>
</tr>
<tr>
<td></td>
<td>3X</td>
<td>5X</td>
<td>9 X</td>
<td>3X</td>
</tr>
<tr>
<td></td>
<td>5 B</td>
<td>6 W</td>
<td>11 B</td>
<td>15 B</td>
</tr>
<tr>
<td></td>
<td>4 W</td>
<td>3X</td>
<td>9 X</td>
<td>16 W</td>
</tr>
<tr>
<td></td>
<td>2X</td>
<td>3X</td>
<td>7 X</td>
<td>5X</td>
</tr>
<tr>
<td></td>
<td>1 B</td>
<td>2 B</td>
<td>5X</td>
<td>3 X</td>
</tr>
<tr>
<td></td>
<td>2 W</td>
<td>5 X</td>
<td>14 B</td>
<td>3X</td>
</tr>
<tr>
<td></td>
<td>3X</td>
<td>11 B</td>
<td>12 W</td>
<td>3X</td>
</tr>
<tr>
<td></td>
<td>6 W</td>
<td>12 B</td>
<td>12 W</td>
<td>3X</td>
</tr>
<tr>
<td></td>
<td>3X</td>
<td>14 B</td>
<td>14 W</td>
<td>3X</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>13 B</td>
<td>14 W</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>7/8&quot;</td>
<td>7/8&quot;</td>
</tr>
</tbody>
</table>

---

W - white  
B - brown  

Repeat XI, VIII, VII, VI, V, IV, III, II, I.
Teaching weaving to children is fun and rewarding. Even very young children like to manipulate yarns for the color, the texture, the design and the relaxing activity. The challenge for the teacher is to devise a project and loom simple enough for the youngster with a relatively short interest span and at the same time provide some basic weaving techniques to enable the child to achieve unique self-expression with fibers. Actually, simple looms and techniques can be used and enjoyed from pre-school age through adulthood.

A good loom for a child is a small frame, often lap- or desk-size. The frame may be discarded after use, it may be used again, or it may remain as a permanent part of the weaving. Some suggestions are shown in Fig. 1 and Plate 1.

Cotton string is used for warp. Start and end the warping on the same side of the project by tying a knot at the end nails or slits. (See Fig. 2).
The weaving will start on the opposite side of the frame; the loose ends of the warp thread thus often become part of a fringe. The warp yarn is strung around the nails or between the grooves of cardboard. Use tape to cover the nailheads to prevent scratching the fingers and losing the warp. Reinforce the notched edges of the cardboard loom by taping the backside.

The weaving technique is plain weave, often weft-face (the weft covers the warp entirely) and areas of color and texture are produced with simple tapestry techniques.

The weft is passed over and under consecutive warp ends. It may be threaded on a blunt tapestry needle, through a hole drilled in a stick, or taped to a stick (tongue depressors make good weaving sticks). Instead of threading the weft on a needle, one may use a smooth flat stick, such as a 12" ruler or a tongue depressor, and pick up every other warp end. The stick is then turned on edge and forms a shed through which a small ball of weft yarn is moved across the entire weaving. (See Fig. 3).

The opposite warp ends are picked up for the second weft pick.

The weft may be pushed in place with the fingers, with a kitchen fork, or with a small wide-toothed comb. Yarn ends, about 1" to 2" long, may hang out in the front for texture interest or in the back to be hidden.

Vertical slits and free form shapes of color or textured yarn are fun to weave. Fig. 4 shows how an area of color or texture is woven in its entirety before proceeding. The numbers give the sequence in which the areas should be woven.

Surface interest and texture can be added by various simple techniques. Soumak, Ghiordes knots and looping are the easiest to teach.
One must usually be careful to weave loosely, so that the various areas don't shrink and pull from each other.

Plate 2 shows a weaving made on a wood frame loom about 15" long, with nails placed along a line near each end. This weaving by a fourth grade student was removed from the nails and hung on a branch for display. The unwoven ends can be knotted for a fringe, or if the weaving is completed across the plank, additional yarn fringe can be attached as was done here.

A picture frame loom is shown, front and back, in Plates 3 and 4. This frame loom can remain with the finished weaving if desired. The weaving was done from the back, but the finished or front side could be seen at any stage, already "framed". When finished, the nails may be tapped all the way into the wood.

The artist, an eighth grade junior high school girl, was offered an intriguing box of thrums (waste yarn ends) from a local weavers' guild as her color and texture palette. She was shown a few tapestry techniques and was allowed to develop her own ideas. She drew a picture on paper of what she wanted to weave, and taped it to the top front of the frame so it could be seen in the back, through the stretched warp. The drawing was hinged with tape in a way that allowed the weaving to be checked from the front. Notice in Plate 4 that a few extra nails were added along the sides of the back of the frame so that the tapestry would not draw in narrower in places and would appear to fill the frame from the front. The tree was woven before the sky. The sky colors were then woven, from the back, across the entire weaving to provide a continuity of color and to prevent gaps around the tree.
Rag Rugs

In spite of their rather plebeian name, rag rugs can be practical floor coverings that combine function and great beauty. Their beauty depends to a great extent on color and design. Their function relates to the choice of material and the craftsmanship. However, these qualities cannot be isolated and the success of a rag rug depends on the integration of all of them.

Materials for rag rugs and directions for making them.

Woven and knit fabric, either new or recycled from used clothing, should be collected diligently for months before the rug is woven. Discard fabrics which have been bonded and separate the rags by fiber content. Basically one ends up with three types of rags: woolens and woolen blends, cotton and cotton blends, acrylics and other synthetics. It is wise to use only one type of fiber in a rug. Rip the seams of old garments and discard all the parts that cannot be cut in strips. Rags that belong to the same fiber group are then sorted out according to their basic color.

To prepare the rags for weaving, cut or tear the rags into 1 1/2" or 2" (38 or 51 mm) strips, depending on

Plate 1
Rag rug woven by Iris Richards

the thickness of the fabric. One should allow a total of approximately 3 to 5 pounds of strips for a 36" X 48" (92 X 122 cm) rug.

For the warp, use an 8/2 carpet warp sett at 12 or 15 epi (50 or 60/10 cm). Select colors which, together with the colors of the rags, will establish the color scheme of the rug. Pearl cotton, size 2/5 or 2/3 may be used instead of carpet warp.

Plate 2 Rug woven with blue-jean material by Ellen Champion
Plan the warp with stripes of two or more colors and choose a symmetrical or asymmetrical layout as shown in Fig. 1.

The threading of the warp is shown in Fig. 2.

For the first and last two warp threads (selvedges), use the yarn twofold through the heddle and through the reed.

The color scheme for the rags may be monochromatic with subtle shading from darks to lights as the weaving proceeds. Another idea for a monochromatic rug is to pick the strips of one color group at random as shown in Plate 2, where all the strips are in shades of blue jean denim. Patterned and solid colored fabric may be mixed with excellent results.

Colorful rugs may be woven by selecting a rainbow of colors.

Some designs for rag rugs may call for complete symmetry in the weft so that the second half of the rug is the mirror image of the first half. In this case, the available rag strips of each type should be divided in halves so that when reaching the halfway mark of the rug, the remaining strips are ready to be used in reverse order.

Rags may be tie-dyed, overdyed or bleached for special design effects.

Before the weaving begins, the rag strips are usually sewn together and wound into balls. The end of the strips are cut on the bias and overlapped. Two inch strips are first folded in half and then the raw edges are folded back in as in Fig. 3A. One-and-a-half-inch strips are folded in thirds as shown in Fig. 3B.
The splicing is held in place by a few inches of machine stitching.

The weft is wound on a rag shuttle (see Fig. 4), and the rug is woven in plain weave.

When the weft turns at the selvedges, take hold of the weft with the hand and give the weft a few counterclockwise twists on the left selvedge and clockwise twists on the right selvedge. See Fig. 5.

When the shuttle is empty, refill it and splice the weft ends by simply overlapping them in the shed.

The rug shown in Plate 2 was started and ended by weaving a 1" heading woven with a weft of the same yarn as the warp.

Rag rugs are usually finished by tying the fringes with overhand knots.

---

**JACOB ANGSTADT DESIGNS**

*Two Books Reveal 18th Century Master Weaver's Records*


Published & Distributed by:
Ruth N. Holroyd
20 Old Farm Circle
Pittsford, N.Y. 14534 U.S.A.

8½ x 11" Hardbound set totaling 400 pages.

$39.95 per set

Add $1.50 Postage & Packaging ($2.50 Overseas) per set. - N.Y. State residents add 7% tax. - Dealer inquiries invited.

*NOW AVAILABLE!*
Seminar or Workshop: "Playing with Profiles". Interchanging unit weave systems within multi-harness profiles. Inquire. Ruth N. Holroyd, Instructor
Corded Weaves
— Four Harness Cross Cords

Corded weaves were introduced in the July, 1978, Vol. III No.1 issue of \textit{The Weaver's Journal}. That article dealt with four harness "lengthwise" cords. On a four harness loom one can weave a variety of cross cords in which the ridges run in the direction of the weft.

To make the samples, two looms were set up with 3 ply Nehalem (Oregon Worsted Co.) and threaded on a straight draw. The warp on one loom was sett at 16 epi (60/10cm), (A samples), the other at 12 epi (50/10 cm), (B samples).

Samples 1A - 1B, see Fig. 1.

- Weft yarns
  - same as warp
  - 3 ply Nehalem,
    - white for A
  - 2 ply tapestry,
    - worsted for B

![Plate 1A]

![Plate 1B]

Sample 2A, see Fig. 2.

The weft yarn for the cords has been doubled. The ridges of the cord were emphasized by adding a stuffer weft which may be quite heavy.

![Plate 2A]
Sample 3B, see Fig. 3.

This sample had a different tie-up and treadling from the previous ones.

For the stuffed cords (section d) a heavy jute yarn was used to give a strong corrugated texture.

Sample 4B, see Fig. 3d.

Here some of the creative possibilities of cord weave have been explored after noticing that the weft yarns *, which weave the cords, interlace on the surface of the ridges in plain weave. Changes of color and texture of these wefts can enhance the 3-dimensional effect of the cords (section a). Shiny yarns and light colors on the top of the ridge will make the ridge seem higher. Simple tapestry techniques, such as "clasped wefts" give more possibilities for design. See Fig. 4.
To do the clasped weft technique, lift harness 3, pass the shuttle with yarn P through the shed, go around yarn Q which feeds from a ball to the left of the loom and pass the shuttle back through the same shed. Then pull the yarn P back until the yarn Q has advanced in the shed to the desired position. Lift shed 1 and go through the same two steps (section b). Using tapestry techniques, one can weave slits in the cords. The stuffer weft can be pulled out in loops or fringes through such slits (section c).

Sample 5B, see Fig. 5.

The tie-up and treadling for this corded weave is given in Fig. 5.
Sample 6A and B, see Fig. 6.

Plate 6B

In these samples, the weft picks which weave the cord are woven in a twill. The direction of the twill and the twist of the yarn have an influence on the appearance of the cloth. Compare sample 6B,b and 6B,c. Both use the same left twist yarn.
Adaptation of the four harness cord weave to an eight harness honeycomb weave - sample 7B, see Fig. 7.

Plate 7B
Eight harness cord weave

The four harness cord weave described under sample 3B can be extended on eight harnesses to create a weave in which the cords are deflected and curve around cells.

To weave our sample the loom was set up with 3 ply Nehalem sett at 12 epi. The threading is given in Fig. 7 in which twill blocks on harnesses 1 through 4 alternate with twill blocks on harnesses 5 through 8.

Treading a corresponds to section a of the sample where the cords do not join when they come together. Treading b corresponds to section b of the sample where the cords are joined.

The beating in of the cord weft picks has to be done with a tapestry fork to make sure that the weft curves around the cells.
Backed Cloth on Four Harnesses

A backed cloth is a two-faced cloth which is not reversible. It has a definite right and wrong side.

On the right side of the cloth beautiful and luxurious yarns interlace rather loosely in a weave structure chosen by the designer. This interlacement is called the face pattern. On the wrong side, finer and often inexpensive yarns interlace tightly. The function of the backing is similar to that of bonding fabric. The backing prevents the loose fabric on the right side from being sleazy and facilitates the handling and the sewing. The backing also gives bulk, and therefore warmth and strength, to the fabric. The interlacement of the backing is called the back pattern.

The back and the front of the cloth are not separate layers as in double weave, but are woven together at certain binding points which are chosen so that the binding stitches do not show on the right side of the fabric.

The variety of backed cloth that can be woven on four harnesses is rather limited. Both the face pattern and the back pattern have to belong to the plain weave class. The face pattern can be tabby or a basket weave, the back pattern is tabby.

It is common for a handweaver to use twice as many ends and picks in the back cloth as in the face cloth. For instance, if the face is a thick yarn sett at 6 epi (24/10 cm), the backwarp should be a much finer yarn sett at 12 (48/10 cm) epi. One face end and two back ends are sleyed together in a 6 (24/10 cm) dent reed for a total of 18 (72/10 cm) epi.

For the study of the principles of backing on a four harness loom, the pattern drafted in Fig. 1A will be used for the face and the pattern drafted in Fig. 1B will be used for the back. The arrangement of the warp in the reed is shown in Fig. 1C. The combined threading for the face ends and the back ends is shown in Fig. 1D.

To arrive at the tie-up and the treadling there are these steps to follow:

1. The face pattern shown in the interlacement 1A must be placed on the face ends and picks as shown in the interlacement 1E (the heavy lines).
2. The back pattern shown in the interlacement 1B must be placed on the back ends and picks as shown in the interlacement 1E (fine lines).
3. To weave the face picks (picks 3, 6, 9, etc.) follow the treadling sequence given in Fig. 1A; e.g., lift harness 4, weave pick three, lift harness 3, weave pick six, lift harness 3, weave pick nine, etc.
4. To weave the back picks (picks 1, 2, 4, 5, 7, etc.) refer to the treadling sequence given in Fig. 1B. In addition, all the face ends should be lifted except for every other pick; some face ends have to be left down to form the binding stitches which will prevent the back and the face layer from separating.

Thus:

- for pick 1 lift harnesses 1, 3 and 4
- for pick 2 lift harnesses 2 and 4
- for pick 4 lift harnesses 1, 3 and 4
- for pick 5 lift harnesses 2 and 3
### A. Threading for 18 face warp ends (5" - 12.7 cm).

Face pattern - basket weave

### B. Threading for 36 back warp ends (5" - 12.7 cm)

Back pattern - tabby

### C. Sleying

### D. threading

### E. Weft color order

---

**Fig. 1**
for pick 6  lift harnesses 1, 3 and 4
for pick 7  lift harnesses 2 and 3

Continue this sequence for the back picks.

The tie-up for four-harness backed cloth is given in Fig. 2.

The treadling for the backed cloth of Fig. 1 is given in Fig. 3.

Figs. 3, 4 and 5 show the drafts for backed cloth with different face patterns.

Yarn suggestions:

For a 6 or 8 dent reed, use for backing yarn a 2/20 wool in a color that blends in with the face yarn.

For the face yarn, use beautiful mohairs, alpaca or handspun yarns. Yarns that are not plyed work well.
Plate 1 - Front and back of fabric drafted in Fig. 4

Plate 2 - A commercial fabric. A similar fabric can be woven on the draft shown in Fig. 6.

Romni Wools and Fibres Limited
3779 West 10th Avenue
Vancouver, B.C., Canada V6R 2G5

Write for our FREE catalogue on our large selection of spinning and weaving equipment.
Sturdy Drum Cartler $95. in kit form.
22" Table Loom $160. in kit form. Folds flat like a suitcase while warp is on.
Handwoven or Leather Flowers
— by Iris Richards

If you have some scraps of handwoven material left after making a garment, you may want to consider making matching flowers. Here are instructions for making roses.

Materials needed

Fabric or leather (small scraps)
Velour paper (art supplier)
#18 gage wire (18" lengths)
#28 gage wire (spool)
Floral tape
Water base white glue.

All these materials can be purchased at craft shops.

Sizing for the fabric:

2 tablespoons cornstarch or laundry starch
2 tablespoons cold water
1 cup boiling water
3 tablespoons water base white glue.

Mix the starch and cold water together in a saucepan. Add the boiling water, stirring constantly. Place the saucepan over a low flame and cook, still stirring, until it is thick. Add the 3 tablespoons of glue and let cool. Brush this sizing on the back of the fabric. Dry well and press if necessary with a dry iron.
Making a fabric flower

Cut the sized fabric into petals. Make them narrower at the base because of the thickness of handwoven fabric (see Fig. 1). Petals and leaves should be cut on the bias of the fabric.

 Barely moisten the center of the petal. Shape each petal by pressing your thumbs on the front of the fabric and your forefingers on the back and pulling forward gently to form a cup. Then roll the edges with your thumb and forefinger toward the back until the pieces look like rose petals. You may have to do this several times.

 Make a small loop on one end of a piece of 18 gage wire to start the rose. Roll the first petal around the wire loop to form a bud shape. Wrap the base a couple of times with #28 wire, leaving the wire on the spool. Place a petal around the bud. Place the second petal opposite the first, but do not wrap it as tightly. Secure the petals with wire. Continue placing each petal until the flower is as large as you want it, securing each petal with the wire.

 Next place the five pieces of velour paper, cut as a calyx (see Fig. 1), evenly around the base of the rose and wrap with wire tightly 3 or 4 times. Cut the wire.

Making a leaf

 Cut leaf pattern from sized fabric (see Fig. 1). Place a piece of #18 wire wrapped with floral tape in the center of the leaf and glue. Dry. Bend to a graceful shape.

Rose bud

Cut a $2\frac{1}{2}$" square of fabric that has been treated with sizing. Make a small loop on one end of 18 gage wire. See Fig. 2.

Fig. 1

Fig. 2
Fold the square into a triangle so the long edge has a bias fold (top of bud). Lay the loop end of the wire in the center of point B. Bring point A to point B over part of the loop. Then bring the edge CD over to the edge DE. Pinch the base of the bud (just below the loop) around the wire and wrap tightly 4 or 5 times with #28 tying wire. Cut 5 pieces of velour for calyx and space evenly around base of bud. Continue wrapping the tying wire around base of bud tightly 4 or 5 times more. Cut wire.

Assembling the flower

Hold the wire of the rose or bud in your right hand between the forefinger and thumb. Place floral tape at the base of the rose or bud with your left hand and wrap clockwise holding floral tape taut to stretch slightly as you go. Wrap base 4 or 5 times to secure the tape, then start pulling tape slowly on the diagonal. Turn the rose or bud as you wrap, allowing it to just overlap to cover the wire. See Fig. 3.

Wind until you come to the place you want a leaf. Place the stem of the leaf against the stem of the rose and continue to wrap the floral tape to the end of the wire.

Leather flowers

Use thin, pliable leather and cut it into petal shapes. Dip the leather into warm water and wrap in a towel to keep it moist until ready to use. Then proceed as for fabric flowers, shaping the petals and assembling the flower in the same way. See Fig. 3.

The Spinning and Use of Dog’s Hair
— by Dorothy M. Pubols

The spinning of the undercoat of the dog is quite worthwhile. A yarn of amazing softness and unusual qualities can be made. Dog yarns do not shrink, are not affected by changes of water temperature, are easily washed, do not wrinkle, develop a beautiful nap, are exceptionally warm, and are not available in stores. Properly prepared and spun for the project at hand, doghair can fulfill the purpose of any other type of animal fiber.

The first step is to recognize the various breeds of dogs that have a usable undercoat. The following pure-bred dogs have hair that is suitable for spinning. Sporting breeds: Golden Retriever, Irish Setter, Clumber Spaniel, English Cocker and most of the Spaniels, except the Brittany and English Springer. Hound Group: Afghan (most excellent), Borzoi (Russian Wolfhound), Dachshund (Wire and Long Hair), Scottish Deerhound, Irish Wolfhound, Norwegian Elkhound, Otterhound, and Saluki. Working Dogs: Alaskan Malamute, Belgian Sheepdog (Tervueren, Groendael, and Malinois), Bernese Mountain Dog, Bouviers des Flandres, Briard, Collie (Sable, Blue Merle and Tri-Color), Eskimo, Giant

The Poodle's coat can be used when the fibers are combings, not clippings. Clippings make a very shelly yarn, even when combined with longer fibers.

A few breeds not recognized by the American Kennel Club have coats suitable for spinning. They are the Tibetan Mastiff, Tibetan Spaniel, Border Collie, Soft coated Wheaten Terrier, Spitz, Shih Tzu, and Akita.

Cross breeds or mongrels of these breeds can also have coats suitable for spinning. The most important thing is that the texture of the undercoat be soft. Short haired, close coated dogs do not have an undercoat or have one too short to use.

The undercoat is best acquired by combing and brushing the dog in the late spring or early summer. By doing this when the dog naturally loses its undercoat, there is less outercoat mixed in.

To store the undercoat fibers, put them in plastic sacks, arranged by breed or natural color. If a grocery sack is used, pull another bag over the open end. Seal the bags and label them and, if they will be stored for some time, add a few mothballs, for moths will breed in doghair.

The color of a dog's undercoat is often different from the outercoat. Colors range from almost black to pure white with a wide range of neutral gray, beige, tan, red and brown. The undercoat fibers will dye readily with aniline dyes, or with vegetable dyes. Though it is not necessary to wash the fibers before dyeing them, they should be wet before they are put into the dyebath.

It is not necessary to wash doghair before spinning unless it is exceptionally dirty or unless you are allergic to the dandruff in the hair.

**Washing the fibers.** Draw several gallons of hot water in a basin large enough to immerse the fibers without crowding. Add a detergent and stir up the suds. Immerse the fibers until they are thoroughly soaked (dog hair is hard to wet), and let them soak about twenty minutes. Do not squeeze or agitate the fibers, but push them gently into the water with both hands. Lift the washed fibers into a colander, pushing out as much water as possible with your hand. Rinse until the water is clear. In the last rinse water, add a liquid fabric softener. If you have an automatic washer, you can use the spin cycle to extract as much water as possible. However, never try to wash dog hair in a washing machine, because the action will felt the hair. Before putting the damp washed hair into a hot dyebath, tease any matted areas so the dye will penetrate evenly.

Follow the directions on the dye you use. It is a good idea to dye the natural warm shades to yellow, orange, red or brown. The gray fibers will take the cool colors, green, blue, and turquoise, best. White fibers will dye well in any color. Deep shades of brown and black should be left in their natural
colors. When you dye the fibers, you may find the outer tips of the outer coat do not take the dye, for this hair is hard and glassy. Transfer the dyed hair to a warm detergent bath. This will remove the excess dye more quickly than continued rinsing. Rinse after the bath. In the last rinse, add a liquid fabric softener, and let the hair remain in the solution for twenty minutes. Pour the fibers into a colander, press out as much water as possible, tease any lumps apart (they separate very easily when the hair is wet), put the fiber in a mesh bag and dry in the automatic dryer for about twenty minutes. Let the fiber cool. If it is still damp, dry it for another ten minutes until completely dry. (Hair that is stored damp develops a musty odor). To dry doghair without using a dryer, use a yard or two of nylon net, pinned like a hammock between two clothes lines. Put the teased hair on the net and let it dry thoroughly. (This may take a day or two).

Matted pieces of doghair should be picked apart with an upholsterer's pin. Start at the outside of the matt, picking away at the edges, and work toward the center. (A comb or brush does not work as well). If the matt is too hard to separate, don't waste your time on it.

Carding. Dog's hair is easier to card than other fibers and makes much larger rolags for woolen spinning, or rolls for worsted spinning. Many varieties of fancy singles, later plied, are initially designed on the carders. Blending of various fibers and colors is done at this stage. There are hand carders and hand-operated drum carders. The drum carder compacts the fiber somewhat, making it less loose and airy.

For doghair, it is best to use a No. 26 or medium wool carder. Hand carders will last longer if you tin the top and bottom edges of each carder. Tin strips may be purchased at hobby stores or cut from suitable sized tin cans.

Treat carders with care and consideration. Mark the carders L for left and R for right, using them in the hands so marked (some authorities say carders can be used interchangeably). Never lay carders flat on the floor when not in use. It is too easy to step on them and crush the teeth. When through carding, mesh the teeth of the carders, and set them on edge, handles up, against a chair leg or spinning wheel.

Though the hand positions change during carding, the carders never change hands. Keep both hands as far out on the handles as control will allow, for the wire teeth are sharp and can bring blood to the knuckles. Work with the carders resting on your knees, to give better control. It takes practice to develop and control a light touch, the lighter the better. The fiber can be carded over and over for practice. Try not to load the carder with too much fiber.

Several methods of designing single thread start during the carding. Blending various textures can be done at this stage. This is done in steps 1 and 2 of the carding process. Load the carder lightly with long fiber. During step 2 when there is an even amount of fiber on each carder, add the other fiber and finish the carding. This method will keep shorter or coarser fibers under control. However, there is no method that will enable you to spin really short fibers into yarn that doesn't shed.

Color blending is also done at this stage. Take fibers in two colors and
CARDFING

Step 1

Step 2

Sit firmly on an ordinary chair, with the left foot squarely placed, the right knee slightly bent so the ball of the foot rests just under the chair. Firmly grasp the L carder in the left hand, place on left knee, with handle pointing to the left and away from you. Spread fiber on left carder.

R, over L; brush, brush, brush.
(note hand positions)

Step 3

Transfer fiber from R, to L; brush, brush, brush.

Step 4

Transfer fiber from L, to R; brush, brush, brush.

Step 5

Transfer fiber from L, to R, very lightly, several times, ending on the R, card, Step 5.

With the back of L, roll up the fiber as in Step 6.

Step 6

Transfer rolag, to back of L, as in Step 7.
You have now created a rolag.

Step 7

for woolen spinning

for worsted spinning

Make roll parallel to the handle of the carder

for woolen spinning

39
lay them on the carder in strips of color two or three inches wide. Proceed with the carding. Color fibers can also be laid one on top of the other and carded. Always spin some yarn to see what effects have been achieved. If you want long stretches of color, card a rolag of each color, laying them in a box or tray in the proper order you wish to spin them. Nubby effects may be planned at the carding stage. At step 4, add small pieces of fiber of another color, finish carding, and spin. Some of those impossibly matted fibers of a contrasting color can be cut into small bits and used.

**Spinning.** Carded dog's hair must be tightly spun but not overspun. If you plan to use doghair warp, select the longest fibers on hand, such as afghan hound or Pekinese. Spin it tight, then wash it and dry it while stretching it with weights. Dog hair does not adhere to itself as do other fibers. During spinning, it is important to keep the twist. Find a way of securing the end of the thread when you have to stop. When you return to your spinning, respin that part you anchored before continuing to add to the thread.

When you spin singles, some designing of the yarn can be done at this time. Nubby yarns can be made by adding blobs of fiber after the twist has been established. These can be of a different color. Drawn out nubs are known as slubs or "thick and thin." However, such textures should not be accidental. Proper and even twist must be maintained and the design of the yarn must be under control.

When you plan on plying two or more threads together, the single threads should be tightly spun because they untwist somewhat during the plying and could fall apart. Plied yarn is suitable for knitting, crocheting, weaving and others. During the process of plying, there are many more opportunities for designing yarns. Ply together a thick thread and a thinner thread. Try to ply while traversing the one thread back and forth in one spot at intervals to create a texture design, or ply with a metallic thread, or ply two colored singles together.

It is best not to make more than two ply yarn. Spinning is time consuming and it is better to control the size of the individual threads rather than to spin many singles.

After the yarn has been spun, it must be hanked and tied. If you don't have a niddy-noddy or a reel, use a firm carton. Make a slit in the edge to anchor the start of the yarn, then wind it loosely around the carton. If the ends do not come together to be tied, add a length of yarn or string to make the ends meet. Twine a thread loosely through the hank in four places. This twining is necessary so the hank can be washed and stretched without tangling. Wash the hank and rinse. In the last rinse, use a fabric softener and wring the hanks or spin them in the washer (drop the hank over the center post in the washer).

It is important to stretch the hanks of doghair yarn while they are wet. This sets the twist and prevents the yarn from falling apart. To do this, take two pieces of doweling(unpainted), one wire clotheshanger, and at least
a quart plastic bottle with a handle. Pull the bar of the clothes hanger down, then loop it over the hook. Now there are two loops of wire to rest the top dowel on, on which the hank has been threaded. Hang this somewhere that it can drip. Now thread the second dowel through the bottom loop of the suspended hank. With a white string, tie the handle of the bottle, filled with water, to the bottom dowel. Put a pan under the hank to collect the dripping. Let it hang until it is dry. Sometimes it is necessary to turn the hank so the part that lays over the dowels will dry thoroughly.

All threads and yarns should be stored in hanks until ready to use. Rolling the yarn into balls before storing puts an extra strain on the yarns.

This way of handling and spinning doghair has worked for me for many years and has proved satisfactory.

Book Reviews


This is a different kind of craft book. If you feel you are in a rut or dissatisfied with your life, this could be the book you need. It develops the idea that crafts can be a means for developing your inner self. You may not agree with the premise that your work can be a form of worship, but this book could spark many long and heated discussions among craftsmen which lead to new insights.

The book is written by a group of people who are involved in the craft of writing. D. M. Dooling, Joseph Cary, Paul Jordan-Smith, Michael Donner, Harry Remde, Jean Kinkead Martine, Jean Sulzberger, Chanit Roston, and P. L. Travers have written separate chapters which flow into one style so well that the book seems to have just one author. Perhaps this is the work of the editor, in which case he is to be congratulated.

Some chapters are more successful than others. I found Harry Remde's chapters, Close to Zero and The House As Center, particularly interesting. And D. M. Dooling's The Alchemy of Craft and Jean Sulzberger's The Touchstone provided many valuable insights concerning craft work and life. On the other hand, Chanit Roston's Make Me a Sanctuary seemed little more than a retelling of a part of Genesis from the Bible. The fairy tales and legends included in the epilogue were an unexpected delight.

The authors are to be commended for focussing on crafts in general instead of on their craft of writing. However, this general view of crafts is also the book's weakness. A few chapters by practicing craftsmen such as weavers, potters and glass workers would have added specific insights and ideas which would have enriched the book.
A Way of Working is a valuable book which may help you forge your own personal philosophy of life. And it should bring you to appreciate your work in your chosen craft in a new and more vital way, giving you a greater satisfaction.  

Mary Derr


The book is subtitled: Exercises and projects for weaving layers, tubes, double-width fabric, stuffed and quilted forms, and three-dimensional shapes on the four-harness loom.

This is a beginners' book and explains in great detail what most teachers would cover when double weave is introduced for the first time in a class situation. The author gives step by step instructions and the book is valuable as a "teach-yourself the basic elements of double weave" text.

However, as this is a rather expensive hard cover book, the reader may expect something more than the most elementary information. This book should be a more complete treatise on four harness double weave in order for it to be of any value as a reference book.  

Clotilde Barrett


The textile collections that one hears most about consist of oriental rugs, native American art and other textiles that have proven to be good investments.

Elyse Sommer does not dwell on the speculative aspect of collecting nor does she teach how to judge the value of a piece or its quality.

This book is about the joy of making discoveries. The pleasures of collecting textiles and textile related items are within the reach of everyone and these explorations bring many rewards: The tactile sense is heightened, history unfolds itself and the display or use of old textiles stimulates creativity.

The style of the book makes for easy reading. There are many photographs illustrating the beauty of textiles that are bargains today because they are still unappreciated by many. Rare textile items and the work of contemporary artists using old textiles as a medium are also illustrated.

If one is not a collector to begin with, one is sure to become one after reading this book because the author shows how much pleasure one gets from keeping one's eyes open for the beauty of textiles.  

Clotilde Barrett

BACKSTRAP WEAVING OF NORTHERN ECUADOR by Redwood, Redwood, Los Angeles, CA, 1974, 40 pp. $4.

Redwood studied the technique of poncho weaving on a backstrap loom with a native from Ecuador. In her book she gives a complete description of the loom and instructions for making it. Step by step she describes how to set the loom up and weave on it. The book is well planned and illustrated for a "do-it-yourself" project. The weaving instructions are technical but each chapter is introduced by a poem which brings a touch of romanticism to the concept of ethnic weaving.  

Clotilde Barrett
Netted Hammock

The netting techniques used for fine filet lace, seines, tennis nets and others, can also be applied to make handsome, practical and inexpensive hammocks.

Basic netting knot, see Figs. 1 - 5a

Plate 1

1. The yarn passes over a gauge which is held in the left hand and the shuttle picks up a loop or mesh.
2. The loop around the gauge is pulled tight.
3. While the gauge loop is held in place with the left hand thumb, the shuttle is brought around in a clockwise motion.
4. The shuttle slides under the first loop from right to left. See Plate 2.
The thumb holds the crossing in place while the knot is tightened. See Plate 3.
5. Successive appearances of the knot as it gets tightened.

Figs. 1 - 5
Materials and equipment needed for a hammock

Two and one half pounds (1.11 kg) cotton seine cord No. 36 or No. 60. Synthetic cord may be used; however, it is difficult to prevent the netting knot from slipping loose and is not advised for a beginner. When only lighter weight twine is available it must be doubled to provide the needed strength.

2 steel rings (2" - 3", 5 - 7.5 cm in diameter).
1 jumbo netting shuttle (10" 25.4 cm long, 1 1/4", 3.16 cm wide).
1 gauge or meshstick (flat piece of wood approximately 2 1/2", 6.35 cm wide and 8", 20.3 cm long, well sanded).
1 secure nail.
Clamps or other means to hold the dowel in place while netting.

Netting the hammock

To wind the shuttle, tie the end of the cotton cord to the shuttlepin, then loop the cord behind the pin (Fig. 6). Turn the shuttle, bring the cord toward the front, back around the pin, and let the cord hand down (see Fig. 7). Turn the shuttle and repeat until the shuttle is full. Cut the twine from the ball. To make the first mesh, wind the cord around the gauge twice and tie a square knot (Fig. 8). Slip the mesh off the stick. Put this loop over a nail or hook.
For each mesh, follow the steps 1 - 5 of the netting knot and remove the gauge after tightening the knot. When the mesh is made, turn the chain so that the last netting knot is always to the left (Fig. 10).

Fig. 10

To continue netting, insert the dowel rod through mesh 2 and through every other mesh (the even numbered ones). See Fig. 11. This creates the first two rows of the hammock net. Each row has 36 stitches.

Fig. 11

The next netting rows are always worked from left to right. Start at left with loop 71 and make a netting knot. Do not remove the gauge after the knot is completed but proceed to mesh 69 and tie a new knot. Many loops can be built up on the gauge. Slide the loops off the stick at the left when too many loops accumulate. At the end of the row, merely turn the dowel around and repeat another row.

When the shuttle runs out of cord, reload it and join it to the work with a square knot. Continue this process for about 8 feet (50 rows).

To finish the hammock draw an arc of 120 degrees (1/3 circle) and a 17" (43 cm) radius (Fig. 12).

Hang the steel ring on a nail so that the ring and the circle are concentric. Drive 12 nails equally spaced along the arc. Put 3 meshes of the hammock on each of the nails.

Fig. 12
With a full shuttle and leaving a two-yard (183 cm) tail, go through the ring, then pick up the three loops at the first nail. See Fig. 13. Go back through the ring and then to the next nail to pick up the loops. After the 12th nail, go back to the ring and leave another two-yard loose end. See Fig. 14. This has created a radiating warp and two wefts. Note that only 3 nails are shown for clarity, there should be 12.

![Fig. 13](image)

The two-yard wefts are now woven through the warp to provide strength and decoration near the rings. See Plate 5.

![Plate 5](image)

Row 1 - make a shed by lifting the odd-numbered warp ends. Weave A to the right and B to the left.
Row 2 - make a shed by lifting the even-numbered warp ends. Weave A to the left and B to the right.
Row 3 - Same as row 1.
Row 4 through 13 - decrease the weaving by one strand on each side. See Fig. 15.
Note: Only 16 warp ends are shown instead of 24.

When only the 2 middle strands remain to weave, use the free ends to make 3 square knots over the 2 middle strands and darn the ends back inside (Fig. 16).

---

The Weaver's Market

UNUSUAL WEAVING YARNS and spinning supplies. Mill end specials. Large variety of silks. Send 50¢ yarn samples; 25¢ spinning fibres; 50¢ silk samples. THE FIBER STUDIO, Foster Hill Rd, Henniker, NH 03242. Open Tues.-Sat. 10-4, Sun. by chance.

A WEAVER'S DOZEN - a new series of twelve weaving patterns created by Barbara Overby and Louise Granader. The portfolio includes woven samples, photos and complete threading directions for 13 projects: Bags, bibs, rugs, scarves, placemats and other useful and decorative items. Send $8.35 (includes postage and handling) to: THE WEAVERS' STORE, 110 N. 10th St., Columbia, MO 65201. Mastercharge and Visa accepted.

ROMNI WOOLS and FIBRES. We have a large and varied selection of yarns, fibres and equipment for the Fibre Artist. Write and ask for our FREE catalogue and see how fast and friendly our mail service is! 3779 W. 10th Avenue, Vancouver, B.C. V6R 2G5, Canada.

DRAWDOWN PREPARATION SERVICE showing warp/weft interlacements. Any number of harnesses, any threading, any tie-up, any treadling sequence (from any and/or all starting points of tie-up).
Send threading, tie-up and desired treadling requirements for quotation to W. Salsbury Associates, 608 Madam Moore's Lane, New Bern, NC 28560.

WOOL CARDING, recarding of wools for quilt batting, weaving, or spinning. Your own wool returned in batting and true to color. Send wool from fleeces or comforter today, or send 25¢ and a self-addressed stamped envelope for more information. St. Peter Woolen Mill, 101-AB West Broadway, St. Peter, MN 56082.
What's a Monograph?

A thorough written & graphic treatment of one particular subject or technique

NOW AVAILABLE
Monograph No. 1 - Bolivian Tubular Edging and Crossed Warp Techniques
   by Adele Cahlander
   $3.00 plus 50¢ handling
Monograph No. 2 - Summer and Winter and Beyond
   by Clotilde Barrett
   $5.00 plus 50¢ handling

ORDER FROM: The Weaver's Journal
P.O. Box 2049
Boulder, Colorado 80306

Inquire about available back issues of The Weaver's Journal!

THE J. & H. CLASGENS CO.
New Richmond, Ohio 45157
Since 1862
Manufacturers and Dyers of Woolen and Worsted YARNS
for Weaving, Knitting, and Crocheting
Yarns made of domestic, foreign, Icelandic karakul, mohair and other specialty wools
We also offer raw wools, wool roving and top
Antique bobbins and shoe lasts
We sell direct from our factories, passing the savings on to you.