The Weaver's Tournal

\$4.00

Volume VII, Number 3, Issue 27

Winter 1982-1983



- Handwoven fashion designers
- Double two-tie twills



IMPORTED LINEN YARNS

 LARGEST SELECTION OF sizes, finishes, & colors

Send \$3 for complete linen sample and color cards

WOOLEN YARNS

- handweaving worsted 2/20s and 3/12s in 56 colors
- NEW HEATHER COLORS 1.25 run imported 100% virgin wool

Send \$1.50 for 2/20 and 3/12 worsted color card \$1.50 for 1.25 run wool color card

LECLERC LOOMS & ACCESSORIES

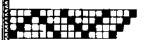
Quantity Discounts Available Dealer Inquiries Invited

TELEPHONE ORDERS ACCEPTED FOR IMMEDIATE SHIPPING

FREDERICK J. FAWCETT, INC.

Department W 320 Derby Street Salem, Mass. 01970 tel: 617-741-1306

WRITE FOR FREE CATALOG





The Mannings

и ка варили во по по во во бо во во во во во во во постави на вод во област во в

ANNUAL HANDWEAVING SHOW

APRIL 9 THRU MAY 1, 1983

Handweavers and fiberists from the United States and Canada are invited to participate in our 10th National Show, Every piece submitted will be hung. Limit one entry per person.

PURPOSE:

To encourage quality and excellence in the art

of weaving

CATEGORIES: Traditional Weaving

Handspun Hand Dyed Handwoven

Handwoven Rugs

Weaving You Can Wear

Tapestry

Weaving for Home Interiors

Fiber Manipulation

SCHEDULE: Mailed and hand carried entries received March 14

thru March 26.

Show dates - April 9 thru May 1.

Mailed and hand carried entries returned May 2 thru May 6.

Brochures will be mailed out after January 1, 1983. Address your inquiry to:

The Mannings

R. D. 2. EAST BERLIN, PA 17316 (717) 624-2223





Quarterly Journal for Textile Craftspeople

Volume VII, Number 3, Issue 27

Winter 1982-1983

ISSN # 0160-3817

ARTICLES

6 A Coat for Handwoven Yardage

by Bettie G. Roth

8 Cylaine Handwoven Designs: Arlene Wohl and Lucy Matzger

11 Triangular Shawl

by Sue Broad

12 The Art of Fashion Design: A Handweaver's Twill Cape

by Judith K. Johnson

14 Inspirations from Sweaters

by Judith Brewington

16 Fashion Trends

by Susan Hick

18 Crochet—A Great Technique for Finishing Handwovens

19 Combine Techniques? Why not?

by Mary L. Derr

21 A Versatile Vest and Matching Wrap Skirt by Beth R. Dopps

23 Whig Rose Study (continued)

by Marvin M. Morgenstern

32 Cotton-Linen Garment in Basket Weave

35 Inkle Bands as Finishing Details on Garments by Britta Brones

37 The Simplest of all Tapestry Techniques Used in a Carrying Bag

38 Double Two-Tie Twills and Basket Weave

by Clotilde Barrett

with credit to Eunice Smith

45 5 Block Double Weave Using the Glimakra Long Eyed Heddle Accessory

by Diane Tramba

53 Complementary-Warp Weave

by Charlotte Coffman

58 Textured Weave—An Alternative

by Virginia Leigh Tanner

62 From the Collection of Anne Poussart

64 From Elegance to Rag Weaving

by Catherine Mick

68 Cotton Jacket with Pleat

by Jamie Leigh White

ARTICLES (cont'd)

69 An Elegant Plaid Shawl

by Elizabeth Kolling-Summers

70 For Anneliese Ammann, Simplicity is Key to Woven Garments

by Patricia Kaspar

74 Silk

by Mary Jo Lawrence

DEPARTMENTS

3 Letter from the Editor

4 Erratum

4 Good Ideas from our Readers

5 Mail Bag

34 Product News

42 The Weavers's Journal Contest

48 Book Reviews

51 Statement of Ownership

66 Product Reviews

72 Coming Events

76 The Weaver's Market - Classified

ibc Advertisers Index

Cover photo: Handwoven jacket in a textured weave designed by Virginia Leigh Tanner, See article on page 58.

Editor and Publisher: Clotilde Barrett

Associate Editor: Mary Derr

Editor for "The Basics": Elizabeth Kolling-Summers

Advertising: Margaret Martin Circulation: Maxine Wendler

Photography: Earl Barrett & Jan Carter

Production: Ellen Champion

Staff Artist: Kay Read

Typeset by WESType Publishing Services, Inc. **Printed** by Mountain West Printing and Publishing.

Ltd

Color Separation by Great Western Graphics

Corporation

The Weaver's Journal is published on the first of each January, April, July and October by the Colorado Fiber Center, Inc., P.O. Box 2009, Boulder, Colorado 80306, Telephone 6303) 449-1170. Subscription rates are \$15,00 U.S. Currency for 1 year 64 issuest or \$29,00 U.S. Currency for 2 years 68 issuest. Colorado residents and 3 % sales tax. Outside U.S.A. 1 year \$18,00 U.S. Currency, 2 year - \$34,00 U.S. Currency. Copyright Colorado Fiber Center. Inc., 1983. Second class postage paid at Boulder, Colorado and additional mailing offices. The Weaver's Journal USPS 384-210. The editorial committee takes no responsibility for the goods advertised in this journal. POSTMASTER. Send address change form 3579 to The Weaver's Journal, P.O. Box 2049, Boulder, CO 80306



Borgs Yarns ...since 1734

fabrics . . . from beginners to advanced professional weavers . . . Swedish tradition means Glimäkra Looms and Borgs Yarns.

Send \$2.50 for our full-color catalog introducing our extensive line of looms and weaving accessories. Ask your yarn store to show you the Borgs sample cards

— over 1000 separate color samples of wools, cottons, linens, and cottolins (50/50) . . . or send \$10.00 for your complete set.





GLIMÄKRA LOOMS 'n YARNS, INC.

P.O. Box 16157- WJ7 - 19285 Detroit Road - Rocky River, OH 44116 (216) 333-7595

This picture also available as a poster. Please send \$3.95 for postage and handling.

LETTER FROM THE EDITOR

As it has become our custom, the January issue of *The Weaver's Journal* once again features garments. As I compare the clothing in this issue with that of the previous years a true feeling of pride and delight runs over me. Handwoven garments have become stylish, fashionable, elegant, without giving up the easy fit and classic lines which are so important to show off the qualities of handmade fabrics.

The skillful manipulation of crochet and knitting has replaced the untidy knotted fringes as a finishing technique. Sensuous and luxurious fabric with a great hand has replaced the clunky stiff cloth with the gutsy primitive look and which was unbearable next to the skin.

Weavers who make handwoven garments today are true designers. Whether they start with a general concept, a pattern or with the woven cloth, there comes a time when all three have to be coordinated in order to achieve that ultimate goal: good design. The philosophies, the personal approaches and the working habits of many successful fashion designers are revealed in this issue. None of these ought to be copied but rather analyzed and assimilated so that the reader can discover his/her own gifts and aptitudes toward making successful garments.

There are definitely more problems and challenges with handwoven fabrics than with commercial cloth when it comes to making clothes. This is one of the most exciting aspects of the craft. One has to really think when one designs with unbalanced plaids, one has to use imagination when the piece of yardage has shrunk beyond all expectations, one has to use a lot of creativity when the pattern pieces have to be assembled in such a way as to reinforce the beauty of the cloth, one has to develop intuition if one is going to make good use of texture and color.

I sincerely hope that everyone will enjoy this issue which offers a wealth of inspiring fashions and is full of ideas, techniques, helps and hints which will make your handwoven garments shed their "homespun" look. Lets hope that this word loses its pejorative implication forever.

After having worked so hard on this issue I have a favor to ask from all of you. It is about the use of the word harness versus shaft. Shaft is really the correct word and conforms to the usage of the corresponding word in other Germanic languages. It is the word used in leading textile dictionaries. The use becomes a necessity when talking about techniques which need two shedding systems such as the use of long-eyed heddles. In these instances, both words harness and shaft are used and they each have a very specific meaning.

The word harness has a French equivalent and it definitely refers to a system and not a single frame. Shafts are the individual components that work within a harness system.

Yet, in spite of all the logical arguments for adopting the word shaft instead of harness when talking about a single frame, I really am more comfortable with the word harness. There are a few exceptions however: Shaft-switching flows easier than harness-hopping

To help me decide once and for all which of the two words to use in *The Weaver's Journal* I want to ask every one of you that, when you write to us for whatever reason, would you take the time to add: I favor the word □ harness/□ shaft: I do need this input.

Many thanks

Clotilde



IF YOU WEAVE . . .

The Mannings have everything you need!!!

Instruction * Resident instruction in all types of weaving. Special classes for beginners.

Looms * Leclerc - Gallinger

Rug Yarns * Over 300 colors 2-3-4-6 ply. Special skein wool for vegetable dyeing.

Fine and Fancy Yarns: cottons linens - mohairs - wools - novelties - chenilles

Name Brand Yarns By: CUM, Lily, Fawcett, Reynolds, Plymouth, Stanley Berroco, Patons

ORDER TOLL FREE DIAL 1-800-233-7166

In Pennsylvania Call

1-717-624-2223 and receive 1.00 phone allowance on orders over 15.00

Catalog and Rug Wool Samples - .50

THE MANNINGS R. D. 2 East Berlin, PA 17316

ERRATUM

The Weaver's Journal, Vol. VII, #2, issue 26, Fall '82, p. 68

There is a typo in "WEAVCAT I ON THE APPLE", page 68 of the Fall 1982 issue. The last paragraph should read as follows.

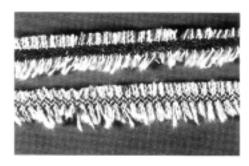
To modify "READFILE" for use with monitor. instead of printer delete lines 167 and 171 Add 135 SPEED 25 and 205 SPEED 255. When running this program type (CTRL)S to stop the scrolling of entries on the screen; depress the space bar to resume listing. To modify "READCAT" for use with monitor only delete lines 210 and 230. Change line 190 to "IF LEFT\$ (A\$,3) T\$ then 220." Add 145 SPEED = 25 and 255 SPEED = 255.

good ideas from our readers

"JEAN" YARN

As Lexplore the possibilities of reweaving all unused clothing into new clothing. I came up with this "jean yarn". Out jeans into straight strips and unravel the edges leaving a blue core and white fringes. I will make enough of it to make a plushy jacket.

Catherine Mick



ANNOUNCEMENT

~~~~~~~~~~~~~~~~

The Weaver's Journal is now available in an edition which includes a dutch translation. The distributor for this edition is AMBACHT IMPORT

> Zutphenseweg 91 7241 KP Lochem The Netherlands.

## **MARCH 7 - APRIL 1, 1983**

Four one week workshops for students of all ability levels and media interests.

Fiber/Fabric (weaving-Kathy Weell, Nicole Mills, basketry-Rache). Nash Law Screen printing Dorothy Fix, paste resist Shigeko Spear. quilting Buth Smiler Tabric commissions-Karen Reese) Clay/Metal/ Stain Glass/Wood/Papermaking/Oil Painting/Drawing/Photography

Box 567, Gatlinburg, TN 37738 (615) 436-5860

undergraduate and graduate credit

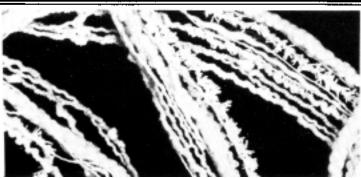
ORDER ALL YOUR WEAVING, SPINNING, DYEING BOOKS AT DISCOUNT

Any good, standard Classics and many New Titles Also Needlework, Hobbies, Crafts, Dolls, Miniatures 10% discount on any U.S. books

KATHERINE RAMUS

2100 E. EASTMAN AVE.,

ENGLEWOOD, CO 80110



#### **GRANDOR INDUSTRIES LTD.**

Dept WJ, P.O. Box 5831, 4031 Knobhill Drive, Sherman Oaks, CA. 91403. (213) 784-5855.

#### GRANDOR YARNS

#### British imports

COTTONS: Textured (see picture) & 10/4 mercensed in colors

WOOL: Berbers, rovings & fine yarns. NEW LOOPED BULKY YARNS. MOHAIR: large looped yarn: also in colors

LINEN: Knop (see picture), Cotton linen. Warp yarns 4/6,8/6,10/6,8/3,12/3,16/3 & colored 8/5s.

SILK: "SHANTUNG" 65% silk/35/% wool, 10 colors, 100% silk tussah, 3 colors. 'SUNBEAM" YARNS: "SOFIA", "CILICIA", "MOHAIR", "SUMATRA" all in delicate colors & textures

McMORRAN YARN BALANCE: still only \$14.95, discounts available

CHENILLE: 3 & 5 cut, natural & colors.

"CLOTHING": Barbara Hamaker's book \$7.95, discounts available.

Please note yarns are wholesale only to trade. Complete set of samples \$2.75

## **MAIL BAG**

I just realized the Double-handled Melon Basket shown in my article, p. 42. Spring, 1982 was woven by my student. Dorothy Hovland. Thula had taken several variations on this shot with my basket and a few with Dorothy's. We liked the composition best with Dorothy's basket. When I sent the final group of negatives to you. I forgot to mention her name. Is it possible at this late date to give her credit?

Marie Graser Huntington Beach, CA

I wanted to tell you how good I thought the interview with Jack Lenor Larsen was. He really seemed to articulate well his fundamental philosophy.

Also I wanted to state how much I appreciate your technical articles. Many magazines give us projects, but few give technical fundamentals in depth.

Esther Kolling Winfield, KS

Enclosed is a draft for six 2-year subscriptions to The Weaver's Journal. We are all 3rd year (final year) students at the School of Textiles in Strathfield, a suburb of Sydney. As such we have come to appreciate the very high standard of your magazine.

M. Sharples Arcadia, Australia

Could we have a series of articles on yarn count systems for each fibre, equating one to another in yarns, deciding sett, etc? I have done a lot of reading in bits and pieces on the subject and still find myself confused when asked questions. Some nice charts and photos of samples perhaps?

Dodie Wirth Whonnock, B. C., Canada

Thank you very much for sending the copy of "The Weaver's Journal" in which you reviewed my book The Chilket Dancing Blanket. I take great heart from the last words in your review, for above all I wanted this book to honor the weavers and their culture. That you sensed this makes me glow...

Cheryl Samuel Seattle, WA

Lenjoy The Weaver's Journal very much. I think it is a great teaching help. I have especially enjoyed Martha Stanley's rug articles. Does she do rug workshops or classes? If so — where? I would like very much to take some classes from her.

Mrs. Gordon Goodband Walpole, MA

Your issue on flax looks marvelously comprehensive; I am looking forward to giving it more attention and then guarding it as an excellent reference.

Lila Netson Norwegian American Museum Decorah, Iowa

The enclosed picture is of one of the Yellowstone Weavers Guild (Cody. WY) projects last year after seeing your article in The Weaver's Journal. Eight members wove enough fine material for one figure and then we traded. We met once and put together nine sets. The ninth was for the Guild. Now each Christmas season for a month we find a local main street store window to display it.

Last year we received many compliments. My husband made the manger and I wove the tiny blankets. We use natural burlap and lots of straw for the background.

Vivian Myers Cody, WY





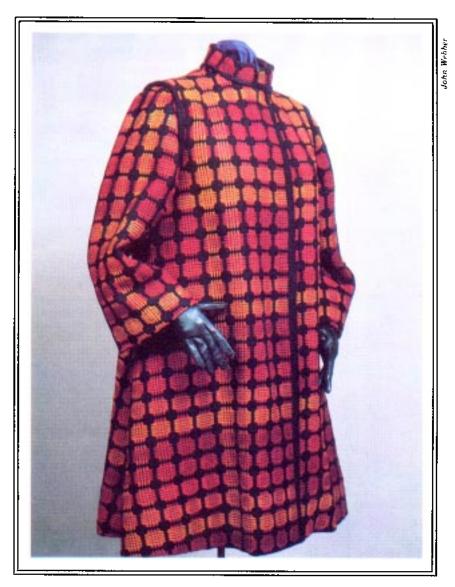


TWILLS and TWILL DERIVATIVES Lucille Landis (2nd printing) No need to depend on recipes for your twills! Use a logical approach to understand their construction, then design YOUR OWN four to eight harness fancy, braided, interlocking, corkscrew, decorated, and waving twills, or crepes, waffles, and shadow weaves.

150 B&W photos, nearly 300 patterns, 120 pages, soft cover, \$10.50. Add 7½% Sales Tax in Conn. Postage \$1.50 per copy, \$.35 add. copy. Dealer inquiries invited.

Book Barn, Box 256, Avon, CT 06001





## A COAT FOR HANDWOVEN YARDAGE by Bettie G. Roth

How many times have you woven yardage, displayed it at shows and then had friends and observers ask, "what are you going to make with it?" As weavers, we all start out with a plan, a purpose, and a design for our yardage. Once the material is woven, pre-shrunk and steamed, we are ready for the cutting board.

For the project described in this article a commercial pattern was purchased: Simplicity 9712. Because 58"-60" (147-152 cm) material was called for, and my finished woven piece was probably around 39"-40" (99-102 cm), it was necessary to put a seam down the center back of the coat. Be sure to match carefully the woven pattern when cutting and assembling, and allow extra yardage for a large repeat pattern.

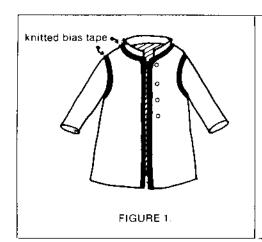
A black polyester lining was cut using the lining pattern. Pockets and buttonholes on the outside of the coat were omitted because I chose not to cut into the fabric. A patch pocket was placed on the lining so that I could carry gloves and a handkerchief in it. A woven interfacing was used to give the front, collar, coat hem, and sleeve stability.

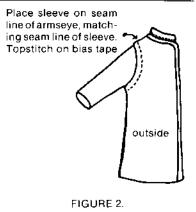
The coat was assembled in a different manner from that recommended by the commercial pattern because I chose to add some of my own design techniques.

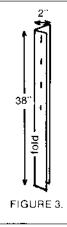
A strip of 4" X 38" (10 X 96 cm) was cut from a piece of black woven polyester. It was folded to make a 2" (51 mm) strip. Buttonholes were made 6" (15 cm) apart, from the top to about 25" (64 cm) down (Figs. 3 and 4). The strip was then sewn 2%" (66 mm) in from the front edge of the coat. Black buttons were sewn on the left front to correspond with the buttonholes.

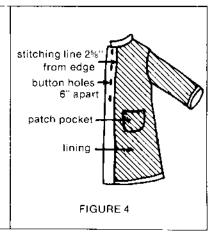
After the coat and lining were cut and side seams and shoulders were sewn, and the interfacing put into place in the abovementioned areas, I sewed the lining and coat fabric together wrong side to wrong side at the armseye and center front, leaving the neck edge and hem open. This left raw edges around the armseye, front, hem and collar. A knitted bias binding was made out of the black 20/2 wool and 20/2 acrylic, one strand of each. (Instructions for the bias binding will be found at the end of the article.) The bias tape was handsewn around each armhole. The sleeves were assembled according to pattern instructions, and then basted %" (16 mm) under the bias tape. The sleeves were then machine stitched by top stitching the edge of the bias tape to the sleeves. (Figs. 1) and 2). The same knitted bias tape was hand sewn to the collar and down the front on both sides. The finished mandarin collar was then placed around the neckline %" under the bias tape and topstitched on the edge in place.

The lining was then hand sewn around the neckline. A row of single crochet with the 20/2 black yarn finished the raw edges on the hem before it was sewn to the required length. The lining was hemmed one inch shorter than the coat length and left to hang loosely on the bottom. The sleeve linings were sewn as required by pattern instructions and hand sewn to the armseye and lower sleeve edge. Upon completion, the entire coat was steam pressed and ready to wear.









WARP: 20/2 black acrylic and 20/2 wool worsted (Willamette from Oregon Worsted co.) in wine red cardinal red, scarlet, sedona red and burnt orange.

WEFT: Same as warp.

SETT: 24 epi (100/10 cm) but varies according to the weave structure used

WIDTH IN THE REED: 45" (103 cm).

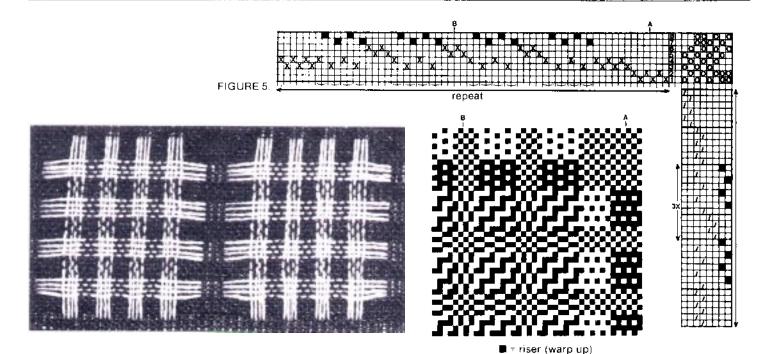
LENGTH OF THE WARP: 5 yards (4.57 m).

CLOTH STRUCTURE
Overshot or any pattern of your choice can be used.

## DIRECTIONS FOR KNITTED BIAS BINDING

Cast on 12 stitches on #1 knitting needles or cast on the number of stitches to give you the desired width when folded. Knit one (1) stitch, knit the next two (2) stitches together, knit to the second stitch from the end and increase one (1) stitch in that stitch, knit the last stitch. Purl the next row. Repeat the first row and second row until the desired length. Cast off, Fold in half and steam press.

Bettie G. Roth is a member of HGA, Sacramento Weavers Guild and a consultant to the American River College Textile Library. She lectures and gives workshops on a variety of subjects pertaining to weaving.



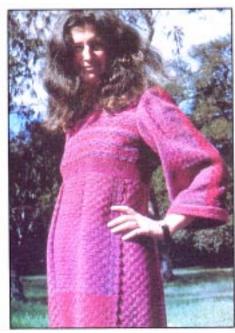
Editor: By looking at the coat I got inspired to design a weave structure with supplementary warp and weft which makes pattern floats and also weaves pockets of double weave.

THREADING, TIE-UP AND TREADLING: See Fig. 5.
The ground eleth in dark the our

The ground cloth is dark, the supplementary warp and weft are shades of bright colors. The ground warp is sleyed at 24 epi (100/10 cm). Each supplementary warp is sleyed in the same dent as the adjacent ground warp. The drawdown of Fig. 6 shows one fourth of a pattern repeat.

Allow plenty for take-up and shrinkage.







## CYLAINE HANDWOVEN DESIGNS: ARLENE WOHL AND LUCY MATZGER

Arlene Wohl: Cylaine Handwoven Designs is the result of a unique collaborative effort on the part of Lucy Matzger and myself. I design and execute the woven fabric while Lucy designs the garment. What is unique about our particular modus operandi is that we allow each other total control over our separate areas of expertise. I cherish my freedom to select yarns, textures, colors and patterns and weave a fantasy of my choice into cloth. Lucy translates my fantasies into hers by treating my cloth as inspirational point of departure.

Our garments are one-of-a-kind. This is without a doubt the least efficient way to conduct a cost-effective business, but from an artistic point of view it is the most stimulating. We are always creating anew, thereby minimizing the monotony that arises from repeats. The challenge of a new project is always imminent, accompanied by the creative high, the jumble of ideas awaiting execution.

I do not particularly enjoy the repetitive quality inherent in the

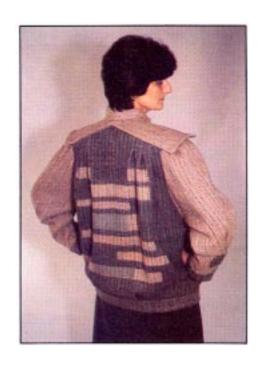
nature of yardage weaving. While it is often tempting to sway with the rhythm of the loom, a power loom can do the job much more effectively. And so I am forever making changes—color changes, pattern changes, changes that require thinking...

I use several tricks which prevent me from falling into the hypnotic powers of rhythmic weaving: pleasant enough, but ultimately mindless. The first rule is never to order enough varn of one color for a project! In ordering yarns, I make sure that warp yarns either blend or contrast well with weft yarns and I have varying textures similar in shade. A typical warp might have 8 different yarns; wool, silk, boucle, mohair, rayon, cotton, thick, thin, shiny, bright and dull. I have thus built in not only the possibility, but the necessity of change in the weft by not having at hand enough of one yarn to do the whole garment. Quite often running out of a particular varn forces creative solutions, such as thinking of a garment in terms of asymmetry. Sleeves don't have to match, the

left side does not have to equal the right!

In planning a garment I think loosely in terms of its parts; front, back, sleeves, cuffs, yoke, collar, facing, pockets. I make my color and pattern changes with these parts in mind, aiming for visual and textural interest that is exciting but not chaotic. It is these two opposing forces that I am constantly struggling with; namely, the temptation to overcome the boredom of shuttle-throwing by changing yarns, and the need to have some semblance of order in the garment. I often save the sleeves for the end of a day—fifty inches of sameness when I'm too tired to think anyway!

Another exciting way to avoid "yardage" weaving in garments is the use of tapestry inlay which adds the new dimension of form as well as the water-color effects achieved by the transparencies of colors running through each other. This technique is challenging because of the constant decisions that are required. I sketch a rough draft relating to shapes only, and design



on the loom. The possibilities are virtually endless. And every row creates a new situation that demands resolution. The tapestry can cover an entire garment, a back with coordinating front and sleeves, or any other combination. The tapestry pieces present challenges for Lucy as well because of our reluctance to cut into the design. Knowing the limitations of the body helps somewhat, but there are solutions even with wider pieces of cloth. Wide fabric lends itself to pleated or folded treatments that incorporate all of the design. Geometric shapes in the tapestry are usually reflected in a "boxier" design. Organic shapes in the tapestry tend to become garments that drape loosely and follow the flow.

It is in this respect that Lucy uses my fabric statement as a point of departure for her own personal interpretation.

An important consideration is the weight and drapability of the garment. While the set and beat are crucial, I am emphatic about using high quality yarns for softness and

lightness; cashmere, alpaca, and mohair are wonderful. I never hide cheaper yarns in the warp or the tabby and the best way to avoid the temptation to do so is by not ordering yarns of poor quality in the first place. It just doesn't make economic sense to invest so much time in producing a garment, the end result of which is lacking in quality due to cheap materials.

Every artist aspires towards the achievement of a look that is identifiable as his or her own. This becomes a challenge in one of a kind pieces. In reflecting on my own work I realize that without intention or forethought it kind of happened subconsciously. I feel equally comfortable working with bright and muted tones, with geometric and organic shapes, with thick and thin yarns. There is a quality of consistency, however, that can be found in my work. My "hand" is my own. I simply cannot, try as I might, beat lightly. Every lacy effect I have ever attempted turns out opaque! The way I design my warps tends to be consistent although I think it is different each time. The color combinations may be new, but the contrasting textures, the thick and thin, the relating and contrasting shades all have a similar "formula."

I pass this on to Lucy now for her thoughts on those aspects of the garment's creation that apply to her. As is always the way with us, it is only when my work finishes that hers begins!

Lucy Matzger: I do not go out to select a beautiful fabric and then design an appropriate outfit; instead, the handloomed fabric is brought to me by Arlene Wohl and, like it or not, I design a garment.

Luckily Arlene and I admire each other's work in most cases and are practically always thrilled to see what the other has come up with. Although Arlene wrote that she does have the general forms (front back and sleeves) in mind when she is weaving, the percentage of pieces

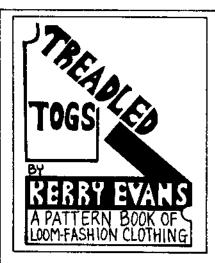
that I receive from her which clearly suggest the design are relatively few. The form and use of the material is not quite as straightforward as she suggests, and that is where the real creative part of my work begins.

So often I am astonished not only by the beauty of the materials used but also by the color combinations and the irregularity of the design. The challenge for me is to decide how the woven "puzzle" will be reduced to the constituent parts of an artistic garment. It may take several days to sort out that puzzle. I study the fabric according to its complexities and the whole piece lodges itself in my mind. It is while I am jogging or being driven somewhere or trying to fall asleep or at other odd times that the finished design of the garment will come mysteriously to me. At that point the technical part of the construction takes over.

If the piece is small, with or without tapestry, and the yarns heavy, the garment will in most cases only lend itself to a short, non-tailored piece where the cut of the linear or geometric parts of the fabric or the placement of the tapestry give the jacket its unique character. If there is a symmetry of design involved, the actual cutting and execution of the jacket are very time consuming. A change of tension during the weaving (natural after all in handweaving) may make the symmetry of matching left and right front and/or back a difficult and intense job. It is impossible to double cut; that's instant disaster!

If the piece shows a lot of tapestry work over the whole width, I will, in most cases, leave it for the back unless it fits an asymmetrical front closing. Sometimes it can be cut in half for a front which would meet without much overlapping. No buttons are then used in such a case so as not to distract from the tapestry design.

Soft fabrics become soft drapeable jackets, with fluid lines, and pleats or draping effects, especially in the sleeves. Soft fabric and full, inter-



A NEW PATTERN BOOK FEATURING 22 ORIGINAL DESIGNS SPIRAL BOUND 76 PAGES 25 PHOTOS SELF-PUBLISHED \$9.95 + .63 BOOK RATE

> PUBLISHER DISTRIBUTOR

KERRY EVANS 2308 EAST EUCLID AVE. MILWAUKEE, WI 53207



#### **NEW ENGLAND** WEAVERS' SEMINAR

July 17 thru July 22, 1983

#### UNIVERSITY OF MASSACHUSETTS

Amherst, MA 01002

Keynote Speaker: MAX LENDERMAN Main Speakers: PATRICIA LYSTER MARY SNYDER

Special interest Groups and Lectures Swap Sessions Room Shows

#### **BEFORE NEWS WORKSHOPS**

July 13 thru 17, 1983

Study with: MARY ELVA ERF, ANTONIA KORMOS, PATRICIA LYSTER, CONNA MULLER, MARGE ROHRER, or MARY SNYDER

For complete program brochure and registration form, write after Feb. 1:

Mrs. Mary Yusko 17 Stanley, Road, Norwell, MA 02061 esting sleeves go together; it is there where I often use an enormous amount of yardage.

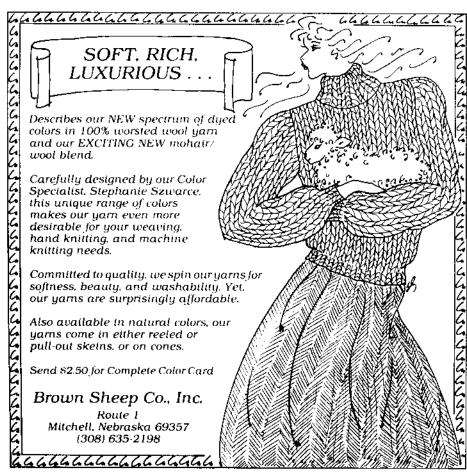
In the meantime I do keep up with the fashion industry and, through fashion magazines and newspapers, am aware of the fashion trends.

The cutting of the design is still exciting but once that's done the construction of the garment is similar to any well-made jacket. It is interfaced, lined, steamed and pressed continuously. The cut pieces are immediately taken to the overlock machine. If I did not do so, I would very quickly have only yarns in my hand. The soft shape interfacing gets steamed in around the armhole, top back and front. It is the interfacing that keeps the garment in shape. It is the time, when, standing over the steaming iron, 15 seconds after 15 seconds. that I either enjoy reading or wonder why I am doing this kind of drudgery. It just depends!

Finally, the sewing starts. However, after each seam it is back to the ironing board where the pressing cloth and the pounding board do their job again. I have never counted the time at the ironing board but I think it is considerable. Bulk is kept down, not only by the overlock machine stitching but mostly by correct pressing and pounding.

Each one of our garments is finished by hand. No machine stitching is used on top of the handwoven fabric. Linings are sewn in by hand and it is rare even to see a machinestitched hem in a lining. It is because the hands feel the "give and take" of the yarns that the garments are harmoniously executed.

P.S. In case you are wondering where our business name CY-LAINE comes from CY is from LuCY and LAINE for ArLAINE which Arlene used in Montreal and also of course Laine is French for her last name Wohl.



#### Handknitted Handspun:

## TRIANGULAR SHAWL

### by Sue Broad

Inspired by an irresistibly beautiful dark-brown fleece, I decided on making a knitted shawl with my handspun yarn.

New Zealand spinners are fortunate to have a large range of sheep breeds and fleece colors to choose from and can thus ensure that the fleece is suitable for the project, and vice-versa. This fleece was from a wooly hogget (i.e. the first shear) of a Suffolk-cross breed, and had the springiness and liveliness of the Suffolk breed plus the even crimp and fineness of the cross (in this case probably Romney). These characters in the fleece promised a springy elastic varn which could be spun medium weight but remain light—if care was taken in the spinning. The fleece therefore was very suitable for a shawl which has to hang or drape and support its own weight without stretching or sagging.

A flick with the carder at each end of the staple was all the preparation necessary before starting to spin in the worsted method. Each bobbin of singles yarn was left overnight on the bobbin to set the twist before being plied to form a 2-ply yarn. The plied yarn was also left on the bobbin overnight before being hanked. After a short soak in cold water the hanks were washed in a wool-wash liquid detergent, then rinsed thoroughly and dried on a line.

Sue Broad is a New Zealand knitter, spinner, and weaver who is visiting Boulder, Colorado for 15 months with her husband who is on study leave there. After many years of spinning, weaving seems a natural progression. She uses mostly handspun natural or dyed wool in her weaving. She weaves a variety of things from fabric lengths to tapestries. Sue has attended workshops given for the Handweavers Guild of Boulder to gain as much experience and knowledge about weaves as possible before she returns to New Zealand.



Large wooden knitting needles, %" (9.5 mm) in diameter, were used for the knitting of the shawl. The pattern is very easy, and appeared in the New Zealand spinning and weaving journal The Web several years ago. It is basically as follows:

Use %" needles and garter stitch throughout.

Cast on 201 stitches, mark the center stitch.

1st row: knit

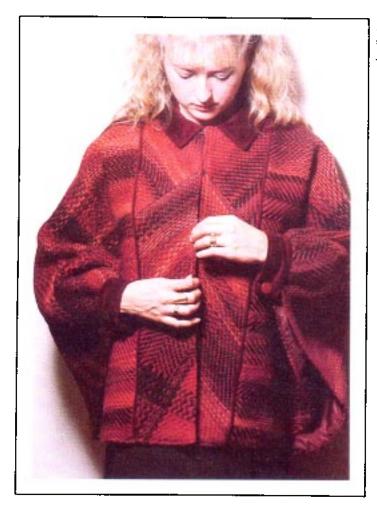
2nd row: decrease 1 stitch at each end of the row, and knit 3 together at the center; i.e., the marked stitch and the one on either side of it.

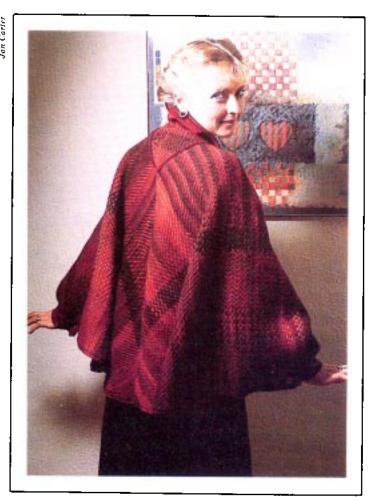
Continue these two rows until all the stitches are worked off, keeping the center marked throughout.

The shawl will appear most untri-

angular—but don't despair! A long length of doubled yarn is threaded along the cast-off edge and crotcheted or blanket-stitched over to give extra support. Fringe can be knotted along the cast-on edge. The shawl is then washed or wetted, excess water is squeezed out, and the shawl is hung from the crotcheted edge to dry. One or two clothes-pegs can be attached to the bottom corner to help to pull the shawl gently into its triangular shape.

In this particular case the thickness of the yarn spun, the spinning method and the needle size used for the knitting all contributed to allow the inherent qualities of the fleece to be used and seen to the full.





# THE ART OF FASHION DESIGN: A HANDWEAVER'S TWILL CAPE by Judith K. Johnson

During the past two years, time has become available to me for the pursuit of making clothing from my handwoven fabric. Developing wearable and custom handwoven garments has become an area of great challenge. I strive for fashions which are completely comfortable, original and are artistic expressions within themselves. With a pattern in the back of my mind I begin by designing the fabric. Only after the fabric is woven do I develop the layout and construction of the garment.

For the 1982 Northern California Conference I decided to participate in the fashion show. Sometime before this I had noticed a pattern that could be visualized as being integrated with handwoven fabric. The design was a very basic and traditional cape with the exception of the cuffs which were added to the garment. These simple cuffs vary the garment between a cape and a loose coat. The style also allows for comfort, warmth and is perfect for handwoven fabrics.

The fabric was woven on a fourshaft loom thirty-two inches (81 cm) wide in a twill weave.

In some areas within the red stripe, which was threaded to a point twill, the design made a chevron pattern while in other parts of the fabric a reverse pattern evolved. Using the ikat weft gave a rich, interesting and varigated appearance.

WARP: Moderately heavy worsted wool, in colors wine, red and black. Wine and red were used predominantly but on one side of the reed a red grouping of threads was used and on the other side of the loom a black grouping. The stripes were arranged so that, when the fabric was woven, it would have a strong black stripe and a lower contrast red one which were to be used in the design of the cape.

WEFT: Same yarn as warp but ikat dyed in light and medium wine, purple, and black. The ikat effect was achieved in the simplest way possible: dyeing all the wool in light wine, tying some of it off, overdyeing with the next darker color, tying it off, and so on. Each color was over-dyed until a complete sequence from light to dark had been achieved.

WIDTH IN THE REED: 32" (81 cm).

SETT: 8 epi (30/10 cm).

SIZE OF THE FABRIC: (off the loom) 30" X 30 yards (76 cm X 3.2 m)

THREADING, TIE-UP AND TREADLING: The threading is straight twill (Fig. 1a) except for the red stripe which is point twill (Fig. 1b). The interpolar is shown in Fig. 1. The treadling sequence given in Fig. 1 was repeated for about 2" 51 mm) and then reversed. This treadling sequence gave the ikat weft dramatic results.

#### PATTERN LAYOUT:

After the fabric was woven, the pattern was laid on the fabric in several ways until the desired design effects were achieved. The intent was to have both the black stripe and the back inset form a "V" in the back of the cape (see Fig. 2). This approach seems somewhat risky but it does allow the artist's work to evolve in a more spontaneous way. The restraints of the narrow fabric caused the steps of the project to be somewhat complicated but increased the potentials for creativity (see Fig. 3). This layoutshowsthe pattern piece. The

dotted line in Fig. 3 shows how the pieces fit together. Pattern pieces C & D were laid with the lower edge of the back seam meeting to allow the black stripe to make the "V". Pattern piece E should be placed on the fabric in such a way as to have bias on the front, and pieces A & B should be laid on the bias grain of the fabric in opposite directions. When the pieces were finally laid out correctly and pinned in place, a blue fabric pen was used to draw a line around each piece. The entire group of pieces were zigzagged with the sewing machine and then cut apart.

#### CONSTRUCTION

Assembly was done in this order: Step 1. Sew back seam of pieces C & D.

Step 2. Sew bias strips A and B to inset piece E.

Step 3. Stay stitch an interfacing to the completed inset (A E B).

Step 4. Prepare the piping.

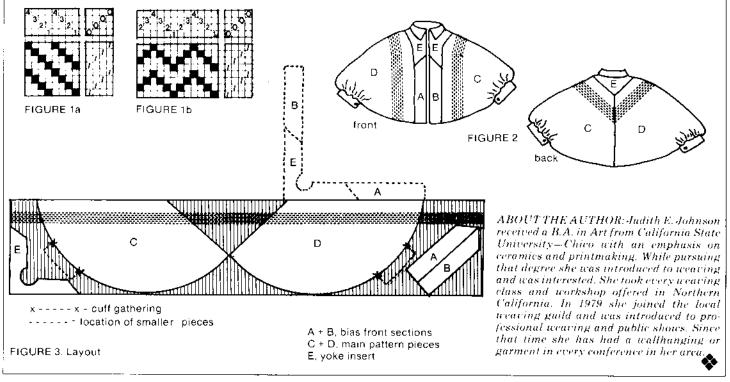
Wine velveteen piping was used as a design element between the front and inset sections. Piping gives the bias line stability and makes the front more aesthetically pleasing. Step 5. Sew piping in place around the entire inset.

Step 6. Sew the inset into place, pivoting at the back point. (Basting this in first will prevent some ripping.)

To complete the garment a pointed collar, cuffs and front facings were made from the wine velveteen. These pieces were interfaced in order that they would have a better hand and weight for the wool fabric. When adding the cuffs, [see Fig. 3], leave a 5/8" (16 mm) seam allowance so the area of gathering can be sewed into the cuff with the sewing machine and then hand stitched to the underside. The cape was completely lined and finished with a closure at the front neck.

## TIPS FOR THOSE MAKING THIS GARMENT.

In making this cape, a traditional pattern can be used with some alterations. More fullness is needed at the cuff placement for gathering. The separate front bias strip will not be necessary if the finished fabric width is 45 inches (114 cm). The entire piece could be cut together. This simplifies the project but the artistic creativity may be lost. Problem solving can be most challenging and rewarding.



### INSPIRATIONS FROM SWEATERS

## by Judith Brewington

I knitted long before I began to weave and found the two skills to be well suited to one another. Many of the techniques and finishing touches are interchangeable. I particularly like the effect of a knit accent against the woven body of a garment and find that very often it is the natural solution to a "too full" sleeve or a "too plain" neck opening.

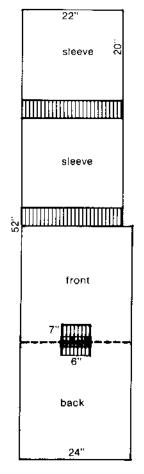
My experiments with converting a knit pattern to a woven one have been quite successful. The dimensions of the piece are the first thing to be figured. I prepare a diagram on paper when doing my conversion. This lets me see what shape the woven piece will take on the loom and I can also make any necessary modifications. In some knitting books the sweater pieces are drawn for you and already reflect the blocked measurements. These are great "inspiration" books.

To begin the diagram you must locate the GAUGE section of the pattern. For simplicity's sake, let's say it reads 10 sts = 2 inches, 10 rows = 2 inches (51 mm). Remember this is simplified, don't spend time looking for a pattern to fit this example. The fun is to find a pattern you like and convert it using this method. Your size is the next things to determine. The patterns will have the sizes listed in this way: 10 (12, 14, 16). The number of stitches you cast on correspond with the sizes in this way: 115 (120, 125, 130). Let's use a size 12, which means we should cast on 120 stitches if we were knitting this garment. To figure the width needed to weave it we will take the number of stitches cast on (120), divided by the number of stitches needed to make X inches (10), and multiplied by those designated inches (2). The width of your piece will be 24 inches (61 cm).

Read the body of the instructions to determine the length. Most patterns will read: "Knit 18 inches or to desired length at underarm". Remember, however, in most cases a portion of that figure is a knitted band which already exists in the sweater but must come later in your woven adaptation. If you wish to follow the pattern exactly, subtract the number of inches given for the ribbing from the suggested length to underarm. The number of inches of ribbing will then be added when you apply the trim. Your pattern may or may not have bound-off stitches for the armholes. If it does. use the same formula you used to figure the width of your piece in determining the indentation for the sleeves.

The dimensions for the sleeves are figured the same way. You must read the directions for the sleeves and pick the number of stitches needed for the sleeve at its widest point. Most knit sleeves are shaped. For my woven adaptation I will use a square sleeve. The fullness is drawn in when I apply the knitted cuffs. This does change the look of the sleeve a little, but I find I like the fuller sleeve. Adjustments such as tapering sleeves by either cutting or loom shaping can be made if you prefer. If you find that the sleeves are not as wide as the body, you must drop warps when you begin to weave them. This means that in your planning and in your diagram, the body of the garment must be woven first, then the sleeves or any other pieces which are gradually smaller in size such as a hood, pockets, etc.

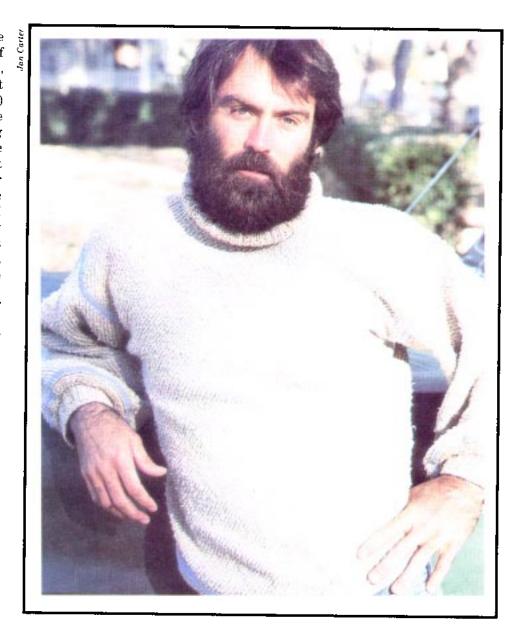
Continue to read the pattern until you see NECK: Example = "knit 45" sts, bind off next 30 sts, attach a second ball or yarn and knit to end of row" (which is usually another 45 sts.). You have just made a 6inch (15 cm) neck opening in your garment. On my diagram I will draw a square neck opening for this garment rather than try to shape it by dropping warp threads to form a rounded neck. When the neck line is finished with the knitted trim, it does not show if it was squared or rounded. The same goes for the shoulder shaping; I do not do it in my woven adaptation. The body is woven in one piece; this eliminates the need for shoulder shaping. By now my diagram looks something like this:



The choice of yarns can also be influenced by the knit pattern. If the sweater calls for a bulky yarn, try using 2 strands of different color yarns (such as worsted) which, if knitted together, give the same bulk but when woven (using one as warp and one as weft), give you a nice heavy weight garment piece. Use the two strands together when you knit the trim for the sleeves, neck and body. The tweed effect is terrific! The classic Rugby stripes could be used in a garment resembling a crew neck sweatshirt for the sportster in your life. If the sweater has a pattern in it, warp up in Rosepath and run a few shots of flowers as a border or a yoke. A tapestry technique could be used if you wished to adopt one of the Mary Maxim sweater coats with graphic style knitting designs. Allover designs such as twills, or M's and O's are quite effective when done in cottons or silks and the knit accent is outstanding against them. Don't limit the trim to just knitting, however; crocheting in a shell stitch on a neck line is a soft accent and looks great if you have incorporated leno or other lace weaves into your garment. Even a braided or rope band tacked along a vest edge in lieu of a knit trim is smashing!

I assemble the entire garment first (after finishing the fabric) and try it on to determine whether I want a turtle neck or crew neck; how long I should make the bottom band. Do I want the cuffs to fold back on themselves or not? All these are design features I can save until the last; I like this kind of spontaneity.

In my experience with attaching knitted trims to woven garments I have found the easiest way is to pick up the stitches using a crochet hook. I insert the hook through the garment piece, draw up a loop, and slip that loop over my knitting needle. Because the garment is assembled, I use circular and/or double pointed needles. When all the area has been covered, I begin the knitting process. In most cases, the number of stitches picked up is the number I work with until



the ribbing is completed and bound off. In the case of cuffs, I have found that in the first row I knit every stitch; in the second row I knit two stitches together (knit two tog) around the entire sleeve. I have then decreased the number of stitches I am working with to half those I picked up. This is enough to draw the "too full" sleeve to the right size for me. I then begin the cuff ribbing to the desired length and bind off. You may alter this decreasing procedure to fit your needs. I usually use a knit 1, purl 1 ribbing for my cuffs, bottom bands, and necks; however, here again your choices are limitless.

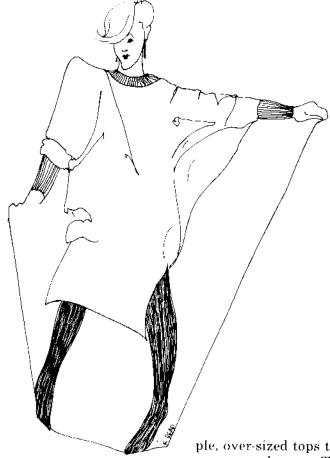
The garment pictured was woven of 8/2 cotton for warp and a

slubbed silk tussah singles for weft. It was woven in a 4-shaft twill with knit ribbing in a matching 2 ply silk tussah. Some accents were added by weaving tabby edges using the 8/2 cotton at the ends of each of the garment pieces, then folding them over themselves to give the look of a band. This also gave a good stable border on which to pick up and knit the ribbing. I machine stitched this garment, but I do hand sew some of my garments depending on the "look" I want.

Some of my favorite garments are INSPIRATIONS FROM SWEAT-ERS. Someone is always printing sweater articles and pattern books with each new season. I never run out of ideas.

# fashion trends

by Susan Hick



At this point in the season the fashion looks have settled enough so that we each can decide which directions we like and what will endure while anticipating Spring.

Many of us face the winter doldrums by gazing upon stark landscapes that range from pristine to dirty white. The weaver's easy method of sparking the spirit is to put color on the loom. The "black and white and red all over" formula can be tempered quite easily by combining a soft red with camel or cinnamon with black or by moving to pale gray and cream. The rest of the color cart serves up delicious visions: electric blue and royal blue, teal and turquoise, olive and khaki and loden, mustard, boysenberry, corals and rusts, ruby red. cerise-fuchsia-magenta-raspberry-red cabbage, and mauve to plum to wine to chocolate. What a menu! The mixtures are seemingly limitless, especially when black is added.

We're all looking forward to Spring, so what about the shapes of things to come? The menswear fabrics and weaves usually associated with woolens will be reinterpreted in silks, linens, cottons, and blends. Mock leno in square and plaid configurations, tiny bird'seyes, waffles, piques, and satin stripes will also be important weaves, along with the plain in subtle textures. Tablecloth and windowpane checks show up in pale shades. Plaids and stripes gain attention when turned on the bias. Many of these fabrics are color-coordinated for mixing. Styles will take their cues from winter's successes; added are sim-

ple, over-sized tops that grow into over-easy dresses. The black-andwhite duo and deep royal will carry over, but other colors are more traditionally spring-like. There are faded pastels such as washed-out madras effects and pearlized pastels, the usual white and cream, and periwinkle, turquoise, shrimp, and moss. The strong, saturated colors include the green of the grass, yellow from the sun, red as in tomato, plus tangerine and mango. Blues and greens will be together again; light gray backgrounds with strong color will be especially good. Lace inserts and trims (cream against white, white against navy), scalloped edges, and horizontal stripes around hems are more points to take into account.



And then imagine the fabrics. The gentlemanly houndstooths, herringbones, pinstripes, and plaids can benefit from the weaver's employment of unusual colorways. A tattersall check was described as "abstract," that is, "dark green and rust-red dashes on an olive background." Some handpainted fabrics incorporate asymmetrical stripings, color blocks, and free form checks; this may be like calling a Mondrian painting "spontaneous" but certainly provides a challenge. Different-hued but similar-valued yarns result in lovely tweeds, plain-woven but color-effective. The surface-interest textiles can emulate sweater knits when loosely woven.



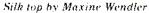
By now we're all quite aware of The Look which fashion has presented to us: the Straight and Lean. Interpreted in so many ways that it's pliable enough for all tastes, it goes from soft and flouncy to architectural and geometric without being stiff or stand-offish. Mainly observed is a softening of lines. relaxed tailoring if you will, which is shapely without being strictly constructed. There is also a spareness that says "minimal but still dressed up." The simplicity of line is balanced by layers, long-overshort or short-over-long or longover-long. Here proportion is everything. The pattern magazines are excellent sources of translations of just the right ways to accomplish it all.

The mannish coats with the builtin ease are not the only outerwear available. Options include tiered capes and wrapped ponchos (no fringe, please - bound edges are better), side-shirred cocoon jackets, and big wide-shouldered vests over jackets. Under those look for suits, tunic-and-skirt sets, tube dresses. and divided skirts in all lengths. Details to consider are wide knitted cuffs, dolman sleeves, flanged or dropped shoulders, inverted sleeve pleats, quilting just on sleeves and collars, a bold basketweave front panel on a lean dress, simple rounded or bateau necklines.



It's a bonus to note that very few of the Winter and Spring fashions look like trendy fads. Instead they encompass smart cuts, details, and balances destined to become classics. And that's the best trend of all!







Silk/rayon wrap-around skirt by Maxine Wendler

## CROCHET—A GREAT TECHNIQUE FOR FINISHING HANDWOVENS

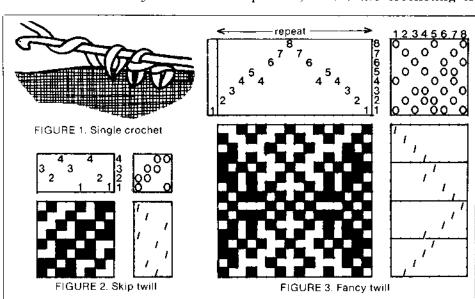
Reading through the pages of this issue in which many garment designers reveal their secrets for making successful garments one notices that more than ever, crochet is used as a finishing technique. The single crochet illustrated in Fig. 1 is the simplest and most useful stitch. If the yarn matches the warp and/or the weft of the woven piece, that yarn is usually doubled or tripled for crochet. Often a textured yarn is added

to help disguise the irregularities of the non-expert.

It is essential that one guards against pulling the fabric apart. Several rows of machine stitching, on which one or two are of the zigzag variety are essential. Sometimes it will be necessary to fold over 1/4" (6.4 mm) material and topstitch again. The fabric is usually finished (washed and steam pressed) before the crocheting is

done. If one observes a lot of shrinkage, it is also wise to wash the crochet yarn before using it, otherwise it may tighten up too much later.

The garments shown here illustrate the use of crochet for finish-





Crocheted collar on leather coat by Catherine Mick

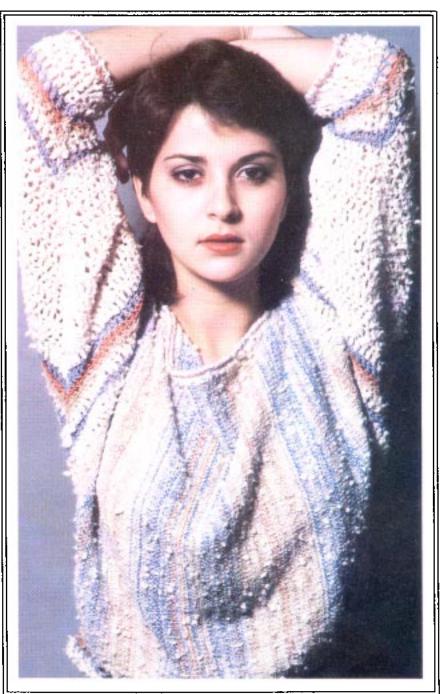
ing. The silk top by Maxine Wendler was woven with textured yarns and the draft of Fig. 2, which is a skip twill. In an 8-dent reed the finer yarns were double sleyed, the heavier varns single sleved. The fabric is very loose and tends to unravel easily. After stitching around each cut edge once with a straight stitch and once with zigzag, all the raw edges were encased in "Seams Great". This is a very loose-woven fabric edging available at fabric stores that provides excellent protection against ravelling. The neck and armholes were finished with crochet.

The silk/rayon wrap-around skirt by Maxine Wendler is woven on a fancy twill shown in Fig. 3. The warp is Italian silk sett at 24 epi (100/10 cm), the weft is a shiny rayon. A commercial pattern was used but it was modified by replacing the hem and edges with two rows of single crochet and by crocheting the waistband.

The green coat by Catherine Mick was woven with recycled leather strips and the collar was crocheted. Catherine Mick used a recycled wool kilt to weave the second coat. Crochet is used to aid in the construction of the garment and also to add a decorative touch.



Coat of wool kilt strip by Catherine Mick



# COMBINE TECHNIQUES? WHY NOT? by Mary Derr

Nancy De Camillis is a handweaver who is acquiring a reputation for her attractive garments which combine weaving and crocheting techniques. Though she began as a painter, she particularly liked to experiment with textures and turned to creating off-loom hangings. When she opened a weaving shop in Kentucky, she learned to weave and taught the skill to others. In one of her workshops, she saw a young woman crocheting in a free, unstructured way. Nancy was interested and, after watching her carefully, she learned to do it, too. She began to combine her loom work with crocheting.

When Nancy moved to Boulder, Colorado, she decided to concentrate on making clothes. She uses classic lines and designs them herself without the aid of patterns. Her garments are distinctive. The fabric is plain-woven with a unique mixture of colors and interesting textures. She crochets the sleeves of the jackets and tops; this gives them a lightness unusual in handwoven clothes.

When she began to work with yarns, Nancy took college courses in two- and three-dimensional design and in sculpture. She believes these have helped her very much.

Colors were difficult for her at first and she said she felt very unsure about them. She studied a book, The Justima Color Course\*, and made a color wheel with yarns. Then she crocheted squares for an afghan and for each square she used a different color, mixing various hues. When the afghan was finished, she felt secure with color and had no more problems. She has done some dyeing but says she usually can find the colors she wants in commercially dyed yarns.

Nancy chooses the yarns by their texture, selecting natural fibers when possible. For weft she uses thick and thin yarns and fancy yarns with slubs and loops in combination with fine and smooth yarns. The warp Nancy makes is unusual. She uses the same fine yarns in the weft and "balances" this with colors and textures so that there are no weak areas in the warp. Because the yarns are balanced, she has little trouble with uneven shrinkage, even when different fibers are used.

She washes the fabric after she takes it off the loom and again when the garment is finished. She washes it in warm water. However,

\*WEAVING AND NEEDLECRAFT COLOR COURSE by William and Doris Justima. Published by Van Nostrand Reinhold, 1971.

since people often use water that is too hot when they wash their handwoven garments, she recommends her customers dry clean their garments.

"Sometimes we learn a lot from our mistakes," she said. "It was because I ran out of warp and did not have enough fabric for sleeves that I first crocheted the sleeves, using the same yarns  $\Gamma d$  used in the weft. I liked the different texture and so I continued to crochet the sleeves of jackets and tops."

She used crochet in other ways, too. She often crochets a trim on the neck and makes the waistband of her "tops" with crochet. She has crocheted the shoulders on jackets, too, but finds the crocheted area expands, making it necessary to construct the shoulders an inch (25 mm) smaller to allow for this. She has also added a crocheted shoulder decoration on some jackets.

Nancy's garments are one-of-akind creations. Her crocheted baby coat with a rainbow on it was so popular a woman approached her with a plan to market kits of the baby coat, but Nancy refused. She said she can't reduce her work to formulas, for she values the freedom she has in designing. Even the samples she makes to test new yarns are never followed completely. She changes the fabric design as she weaves, whenever she sees a way to improve it or add some excitement to the fabric. She sometimes adds a thread of metallic yarn to catch the light and add a sparkle to the fabric.

Nancy brought out a project she is working on now, —a creamy beige top with a vee-neck. She used a warp of three yarns-plain cream wool, cream wool and rayon blend (called Woolray\*), and a light rustcolored rayon yarn.

"When I first used the Woolray, it was so elastic that it drew up into a small square. But when I paired it with rayon, it worked fine," she said.

The fabric she wove was a light beige with occasional flecks of rust. She shaped the vec-neck in the fabric on the loom, drawing it on the warp strings and weaving up to the mark, so the center was empty of threads. When the fabric was woven and taken from the loom, she cut the empty warp threads and sewed around the hole with zig-zag.

Nancy then crocheted two rows around the vee-neck, using the rayon yarn paired with the Woolray. She has crocheted one sleeve now, using the same yarn. She has made a dolman sleeve. She said this style fits most people and is comfortable, which will help make the garment more saleable. She plans to crochet the waistband with six to ten rows using the paired rayon and Woolray yarns. The waistband could be done by knitting a ribbed band, but Nancy said she does not know how to knit.

When the crocheting is done, Nancy will wash it again. When it is dry, she will put it on. By wearing it a short time, she can tell if it is too heavy, if the fabric is uncomfortable and if there are things about it that will prove irritating to the wearer. If there are problems, she tries to solve them. If this is not possible, she destroys the garment. salvaging what she can.

The top she is working on will be one of her sale items at the Handweavers Guild of Boulder annual sale. Each year she displays six to eight one-of-a-kind garments and wallhangings and sells two or three. However, she often receives commissions for work and she likes to work on commissions very much.

Nancy has ideas for the future. She hopes to attend art school in the summer. And she wants to try crocheting a pattern on a fabric to see if it will work.

"It may make the garment too heavy," she said. "And the pattern bulges on the back of a jacket may be uncomfortable. I'll have to try it and see."

<sup>\*</sup>Plymouth Yarn Co.

#### A VERSATILE VEST AND

## MATCHING WRAP SKIRT By Beth R. Dopps

The color and texture of weaving has captured my interest and challenged my artist's training. Mixing colors from my palette and stroking them smoothly onto canvas with a brush or lavishly with a knife has almost been abandoned now that I twist and drape rainbows of yarns through my hands. A lump of clay to be molded by thumb and tool sits wrapped in plastic while I finger handspuns and boucles. My desire to produce interesting and unusual fabric has resulted in this reversible yest that was shown at the North West Conference.

The plaid side of the vest is a mixture of blues, green and grey. The warp colors are dark and bright, the weft colors are light and soft. Samples are extremely important in designing a plaid such as this. The contrast in color and texture in the three warp yarns must be balanced by the proportion of color and texture of the three weft yarns. Without careful planning and experimenting the colors can blend together into unwanted monotony or result in a dominating stripe.

An artist learns that while the subject, or positive areas of a painting, may be vibrant with color and form, the negative areas are also

filled with shades and degrees of quiet movement. As I wove a length of plaid fabric long enough to include a skirt, I thought of the other side of the vest as a negative area. It needed to be a complement to the intricate plaid and yet have an interest of its own. Warping one strand of the darkest blue of the plaid to two strands of navy blue and treadling tabby in the same order produced a subtle pattern. Here again, samples are necessary. There should be enough contrast between the two colors to result in a visible geometric pattern than does not detract from the plaid.

Upon completion, both lengths of the fabric were machine washed and rinsed on gentle cycle in medium hot water with a fabric softener added to the last rinse. After spinning slightly, the pieces were dried flat.

The plaid fabric is an unbalanced pattern. In order to construct the vest from such a plaid, the fabric must be the same on each side. All pattern pieces were laid out in the same direction. To match two pieces, one was cut from a single layer of fabric, then the piece was laid on the other side of the fabric, matching identical plaid blocks. Shoulder and side seams were matched both

horizontally and vertically at the underarm point of the front and back pieces (Fig. 2). An uneven plaid also requires a pattern having a center back seam in order to balance the design. I handled the back pattern piece as two separate pieces with the center back matched in a dark stripe so that when stitched together, this stripe corresponded in width with the others. For a medium size plaid, ¼ to ½ yard (23 to 46 cm) extra should be allowed for matching.

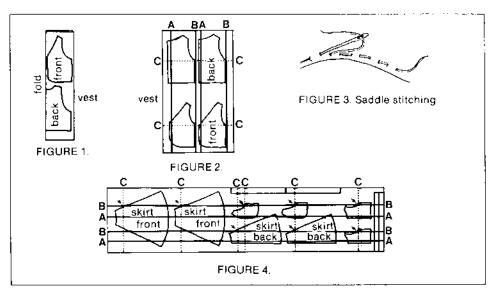
No attempt was made to match the small geometric figure of the plain side, which was laid out according to Fig. 1.

If a skirt to match the plaid side of the vest is planned, the layout of pattern pieces for a wrap-skirt on a longer length of fabric is shown in Fig. 4.

Pattern pieces were outlined with white basting thread. After cutting each piece, the edges were machine stitched.

There is always some hesitation before cutting into a lovely length of handwoven fabric, especially a plaid. There seems to be so much waste in placing the pattern pieces. After all, every thread was placed there by hand. However, this waste can be utilized, and it is a challenge to find ways of doing so. What did I do with these "waste" pieces? I designed a puffy little muff-purse for a favorite little girl to use some of the larger squares. I made a long, thin and tapered "snake" from canvas and covered it with the longer plaid pieces. This was stuffed and became what is called a

ABOUT THE AUTHOR: Beth Dopps is a weaver in Yakima, Washington. She began seven years ago with a rigid-heddle loom and, with the aid of books and articles, became a spinner and 4-harness weaver. She is a member of The Yakima Valley Society of Artists, The Sheep to Shuttle Weavers Guild, the Fiber Artists of Central Washington, and Handweavers Guild of America.





"draft-dodger", or a "draft-dog" with the addition of floppy ears and sad eyes. Smaller squares of the plaid and plain were pieced together in a patch-work pillow and the thrums were used as fringe.

Pattern instructions were used for assembling the vest and skirt. Extra machine sewing on clipped and trimmed edges may be necessary as a precaution against raveling that can occur even between the layers of fabric.

Pattern used: Simplicity Pattern "For 20 Different Tops", printed in the June 9, 1981, Family Circle. Size medium, waist length. For the skirt, McCall's #324, size medium.

Additional sources useful for color design and sewing are: Textile Design Course For Weavers, by Kay Geary; The Bishops Method of Clothing Construction, by Bishop-Arch.

#### PLAIN SIDE OF VEST

WARP: 2 ply wool (about 6.5/2) in two colors, dark blue (D) and navy (N).

WEFT: Same as warp.

Color order of the warp and weft: (D,N,N) repeat.

SETT: 10 epi (40/10 cm)

WIDTH IN THE REED: 22" (55 cm).

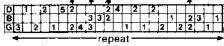
LENGTH OF THE WARP: 45" (114 cm)

THREADING, TIE-UP, TREAD-LING; Plain weave.

LAYOUT OF THE PATTERN: See Fig. 1

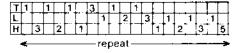
#### PLAID SIDE OF VEST

WARP: 2 ply wool in three colors, dark blue (D), bright blue (B) and green (G). Color order of the warp:



alternate colors

WEFT: Singles wool in heather grey (H), light blue (L); synthetic boucle in turquoise (T). Color order of the weft:



SETT: 10 epi (40/10 cm).

WIDTH IN THE REED: 36" (90 cm).

LENGTH OF THE WARP: 45" (114 cm).

THREADING, TIE-UP AND TREADLING: Plain weave.

LAYOUT OF THE PATTERN: See Fig. 2. Match the plaids at B and C. Place line A on the exact center of the dark stripe. Add seam allowance at center back.

FINISHING: The plain side of the vest is finished with saddle stitching using bright blue (B) yarn; the plaid side is finished with saddle stitching with the navy blue (N) yarn. See Fig. 3.

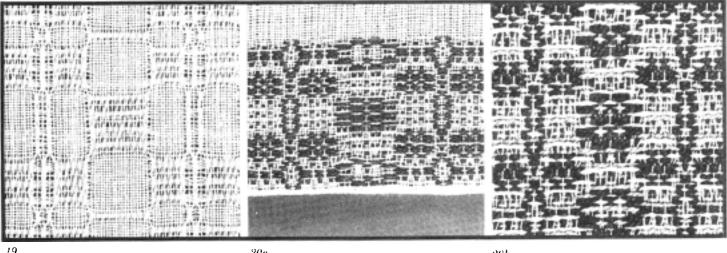
#### PLAID SKIRT

The fabric is the same as for the plaid side of the vest. Add 26" (66 cm) to the warp length.

LAYOUT OF THE PATTERN: See Fig. 4. Place the center backs of skirt and vest pattern pieces (line A) on dark stripes and add seam allowance. Notches at hipline of skirt pattern pieces and underarm points of vest are placed on identical plaid blocks at lines B and C as marked by arrows in Fig. 4.

Front facing for right skirt overlap is cut separately with the plaid blocks of both facing and fringe pieces matching skirt overlap. In assembling the skirt, the fringe piece is stitched between skirt and facing before fringing. The colors extending from the overlap into the fringe should be continuous. This construction will give the front overlap a firm edge.

Handwoven material cut on the bias should be lined to prevent sagging. I used a light weight polyester lining material.



20b

## WHIG ROSE STUDY by Marvin M. Morgenstern

(continued)

Editor: In the previous issue of The Weaver's Journal, Vol. VII, No. 2, issue 26, pp. 41-45, Mr. Morgenstern discussed 18 samples, all woven on WHIG ROSE threading. In these, the author experimented with variations of treadling and variations in the thickness of warp and weft as well as in the sett of the warp.

The set of samples studied here is woven on the same overshot threading and continues to explore the possibilities of varying the weave structures while still keeping the original pattern of roses and borders clearly visible.

#### **BRONSON LACE**

In Bronson lace every alternate warp thread of the draft unit is threaded on the tabby shaft(s); the last thread of each unit is on the tie-down shaft. The remaining ends of the draft unit are threaded on the pattern shaft(s). See Fig. 2

The treadling is: Tabby shaft(s); the base shaft of the unit plus the pattern shaft(s) plus the tie-down shaft; tabby shaft(s); the base shaft of the unit plus the pattern shaft(s) plus the tie-down shaft; the tabby shaft(s); the other tabby shaft(s).

SAMPLE 19 is a regular Bronson treadling applied to our pattern using only 20/2 cotton for warp and weft, the sett is 30 epi (120/10 cm). The treadling of the 4 possible Bronson blocks on Whig Rose threading, as read down, are as follows:

On base shaft 1 On base shaft 2 On base shaft 3 On base shaft 4

|         |         |         | ond.    |
|---------|---------|---------|---------|
| Block 1 | Block 2 | Block 3 | Block 4 |
| 1-3     | 2-4     | 1-3     | 2-4     |
| 1-2-4   | 1-2-3   | 2-3-4   | 1-3-4   |
| 1-3     | 2-4     | 1-3     | 2-4     |
| 1-2-4   | 1-2-3   | 2-3-4   | 1-3-4   |
| 1-3     | 2-4     | 1-3     | 2-4     |
| 2-4     | 1-3     | 2-4     | 1-3     |
|         |         |         |         |

A little experimentation on the loom shows that blocks 1 and 3 will show our pattern nicely. Weave blocks 3,1,1,1,3,3,3,3,1,1,1 and repeat from beginning. End with an extra 3.

This is a handsome fabric and the favorite of many who have seen the various cloths.

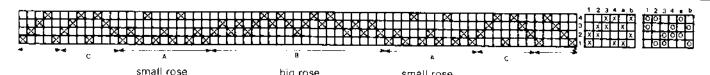
tie-down pattern FIGURE 2. base (tabby)

#### ITALIAN BOUNDWEAVE

SAMPLE 20 a & b is a double sample in Italian bound weaving done in three colors A, B, and C. This weave is usually built up in twill blocks without reference to the original overshot pattern. Here it is done in the Whig Rose pattern as follows:

| Block 1 | Block 2 | Block 3 | Block 4 |
|---------|---------|---------|---------|
| 1-2 A   | 2-3 A   | 3-4 A   | 4-1 A   |
| 2-3 B   | 3-4 B   | 4-1 B   | 1-2 B   |
| 12 A    | 2-3 A   | 3-4 A   | 4-1 A   |
| 4-1 C   | 1-2 C   | 2-3 C   | 3-4 C   |

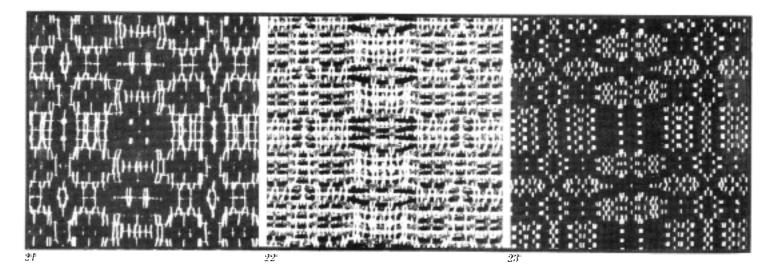
Naturally 1-2  $oldsymbol{A}$  means sinking shafts 1 and 2 using color A, etc.



big rose

FIGURE 1. Ancient Whig Rose pattern

small rose



There are two samples woven. The pearl 20 delicate, sample (a) has A in red (dominant), B in pink and C in yellow (both recessive). There is no tabby in this weave as the three sheds in each block lift all shafts.

#### Treadle plan for 20a:

C-blocks 3, 2, 1, 1, 2, 3

A-blocks 4, 1, 4, 1, 4

B—blocks 3, 2, 3, 2, 3, 2, 3

repeat A, and end with C.

In the treadling plan here, A, B, and C are our regular treadling units we have been using all along. Do not confuse them with weft colors A, B, and C.

The pearl 5 heavier, modern-looking part of the sample (b) has color A in brown, B in orange and C in white.

#### Treadle plan for 20b:

C-blocks 3, 2, 1, 2, 3

A-blocks 4, 1, 4

B-blocks 3, 2, 3, 2, 3

repeat A and end with C after sufficient repeats.

This weave exchanges colors B and C at the center of the pattern so both halves will be exact mirror images. Here we have 2 centers in each repeat, in the middle of C and in the middle of B, reversing back and forth. This exchange was not done in sample (a) as it cannot be seen.

On a jack loom, just exchange the blocks: 1 = 3, 2 = 4, 3 = 1, 4 = 2.

#### BARLEYCORN

SAMPLE 21 is woven in Barleycorn, not too different from the previous featherstitched or twin weft sample. *P* = pattern, *T* = tabby.

| Block 1 | Block 2 | Block 3      | Block 4 |
|---------|---------|--------------|---------|
| 1-2 P   | 2-3 P   | 3-4 P        | 4-1 P   |
| 1-3 T   | 2-4 T   | 1-3 <i>T</i> | 2-4 T   |
| 1-2 P   | 2-3 P   | 3-4 P        | 4-1 P   |

Because the tabby progression in the above blocks is again poor, I used a fluffy, black sportyarn to mask this problem. It was only partially successful, but more so than with floss.

#### Treadle plan:

C-blocks 1, 4, 3, 4, 1

A—blocks 2, 3, 2

B-blocks 1, 4, 1, 4, 1

repeat A, repeat CABA, end with C.

On a jack loom, just exchange blocks: 1 = 3, 2 = 4, 3 = 1, 4 = 2.

#### **ECHO**

SAMPLE 22 is called Echo and is, in my opinion, a relative of Italian bound weaving, worked out by the late Bertha Needham of Florida. This weave is designed for treadling in twill blocks. To show our pattern, I use 3 flosses, dark green on the main pattern shaft combination, with light green on the shafts with next higher numbers and beige on the tabby pair (instead of on the lower numbered shafts as in Italian bound weaving).

The sample shown is done on a counterbalance loom as follows (weave across):

| Block 1 | 1-2 dk green | 2-3 It green | 1-3 beige |
|---------|--------------|--------------|-----------|
|         | 77           | 77           | 2-4 beige |
| Block 2 | 2-3 dk green | 3-4 It green | 1-3 beige |
|         | 37           | **           | 2-4 beige |
| Block 3 | 3-4 dk green | 4-1 It green | 1-3 beige |
|         | 71           | **           | 2-4 beige |
| Block 4 | 4-1 dk green | 1-2 It green | 1-3 beige |
|         | 31           | 37           | 2-4 beige |

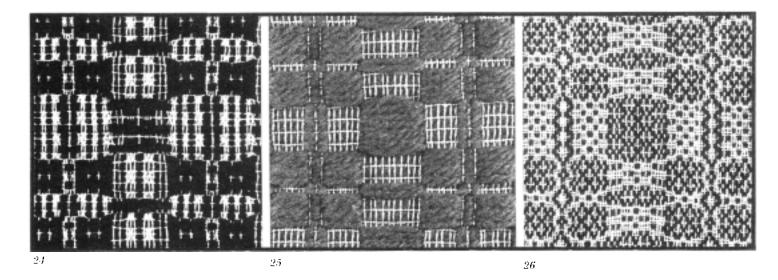
#### Treadle plan:

C-block 2, once

A-block 4, twice

B-block 2, twice

repeat A, then CABA, end C.



In this counterbalance sample the pairs of the dark green did not stay closed but seemed to open in the center of the overshot. A little checking I later did on a jack loom showed the dark green stayed together. I don't know why. The jack loom result looked better.

On a jack loom you would weave

C-block 4, once

A-block 2, twice

B-block 4, twice

#### NO-TABBY OVERSHOT

A recent, interesting monograph I enjoyed very much is *Creative Overshot* by Margaret Windeknecht.\* SAMPLE 23 in my study is borrowed from her and then altered. Don't we all!

No-tabby overshot is all 20/2 cotton natural at 30 epi (120/10 cm). Treadle plan given for jack loom:

| Block 1 | Block 2 | Block 3 | Block 4 |
|---------|---------|---------|---------|
| 2-3     | 3-4}    | 4-1)    | 1-2]    |
| } 3X    | } 3X    | 3X      | 3X      |
| 3-4     | 4-1     | 1-2     | 2-3     |

When I put this on the loom, I discovered that it was again planned for a twill block treadling order. Since the rose treadling is always out of order, that left holes in the fabric where the succeeding block was an opposite block. Therefore, I have woven the Young Lover's Knot, or as drawn in, version rather than Whig Rose. I could have put a tie-down shot between the blocks to prevent holes, but that is visible and interferes with the pattern.

#### Treadle plan:

Border—blocks 4, 3, 2 Small star—blocks 1, 4, 1, 4, 1 Large star—blocks 2, 3, 2, 3, 2, 3, 2, 3, 2 Small star—blocks 1, 4, 1, 4, 1 Balance of repeat—blocks 2, 3

Watch out in joining blocks not to repeat a weft pick

and not to go to an opposite shed; always stay in a twill sequence. When you find yourself about to do one of these mistakes, look at your block structure. Take the 2 threads of the block and reverse their order. That always cures the problem. No one will ever know.

Ms. Windeknecht used all one color for a texture version. I used a navy 20/2 for weft and got a nice pattern. More repeats of the blocks would have squared the fabric, but it's slow, slow.

#### MAYBE MINE

I have been told that no matter what a weaver does, someone else has done it previously. So I will call SAMPLE 24, Maybe Mine. It is woven with 20/2 cotton warp and tabby weft, sett at 30 epi (120/10 cm). Sportyarn for pattern weft.

P = pattern, T = tabby.

| Block 1      | Block 2 | Block 3 | Block 4 |
|--------------|---------|---------|---------|
| 1-2 P        | 2-3 P   | 3-4 P   | 4-1 P   |
| 2-4 T        | 1-3 T   | 2-4 T   | 1-3 T   |
| 1 <i>P</i>   | 2 P     | 3 P     | 4 P     |
| 2-4 T        | 1-3 T   | 2-4 T   | 1-3 T   |
| 1-2 <i>P</i> | 2-3 P   | 3-4 P   | 4-1 P   |
| 1-3 T        | 2-4 T   | 1-3 T   | 2-4 T   |

Sportyarn is used once again to mask any possible tabby streaks. Besides, the block 3 float (3-4) is too long for floss, whereas sportyarn will lie down against the fabric, sort of.

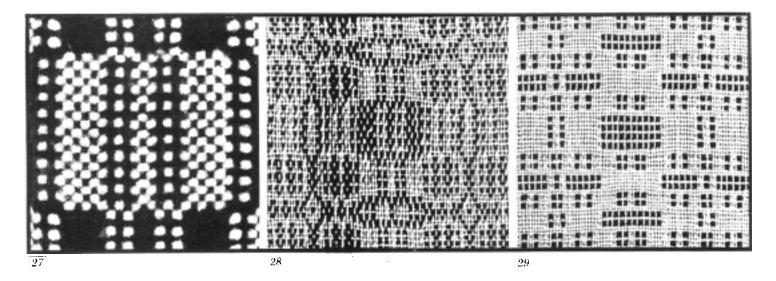
Treadle plan for counterbalanced loom: Blocks 3, 1, 1, 3, 3, 1, 1, repeat; end with block 3.

#### Treadle plan for jack loom:

Blocks 1, 3, 3, 1, 1, 1, 3, 3, repeat; end with block 1.

There is more Whig Rose feeling with the triple block in the center, but a double block would help the circle shape.

<sup>\*</sup>Windeknecht, Margaret. Creative Overshot 1978. Shuttle Craft Guild Monograph 31. HTH Publishers, WA.



#### TUFTED WEAVE

SAMPLE 25 is called tufted weave. Use sportyarn for pattern weft P and 20/2 cotton for the warp, sett at 30 epi (120/10 cm) and 20/2 cotton for tabby weft T.

| Błock 1      | Block 2 | Block 3 | Block 4 |
|--------------|---------|---------|---------|
| 1 <i>P</i>   | 2 P     | 3 P     | 4 P     |
| 2-4 T        | 2-4 T   | 2-4 T   | 2-4 T   |
| 1 <i>P</i>   | 2 P     | 3 P     | 4 P     |
| 1-3 <i>T</i> | 1-3 T   | 1-3 T   | 1-3 T   |

There is no tabby streak here because the 2-4 tabby is between each pair. But sportyarn looks better because it "bunches". Grace Blum suggests cutting these floats as tufts, but then says they would not be secure. It looks well uncut to me. The reverse side of this looks well also, rather like swivel and plain tabby blocks.

#### Treadle plan for counterbalanced loom:

Blocks 3, 1, 1, 1, 3, 3, 3, 3, 1, 1, 1, repeat, end with block 3.

#### Treadle plan for jack loom:

Blocks 1, 3, 3, 3, 1, 1, 1, 1, 3, 3, 3, repeat, end with block 1.

#### SWIVEL

Now comes a series of 12 related samples, all in the technique shown as Swivel, SAMPLE 26 is the first and principal version of this technique. Weave colored floss in the sheds created by sinking each shaft (singly) as it is threaded. Follow each of these colored weft picks with a pick of weft which is identical to the warp. Weave in the shed created by sinking a single shaft which, together with the shaft sunk for the colored pick, makes up the standard tabby pair (1-3 or 2-4). Consequently, if the pattern weft is on 1, the complementary pick is on 3; pattern on 2, complementary pick on 4; pattern on 3, complementary pick on 1; pattern on 4, complementary pick on 2; so that each 2 picks make a 1-3 shed or a 2-4 shed. In weaving the patterns right side up, you will want 3 shafts up and 1 shaft down.

Note that the last tabby thrown before starting the 26 WINTER 1982-1983 WJ

pattern is important. A pattern which starts with two complementary picks on 1 and 3 should be preceded by a 2-4 (down) tabby.

All of the treadling plans will be given in counterbalance, unless otherwise stated. In translating them for a jack loom, I find it helpful to say to myself, "all but 1", instead of 2,3,4. This preserves the structure of the cloth in my head and is easier to follow, particularly when you have both rising and sinking shed looms.

You will recall from the "preliminary remarks" at the beginning of this study that theory requires more weft picks than will fit in the space to make the pattern square, unless you use skinny wefts. In swivel you see so little of the pattern weft, that you want a good weft, such as floss. Therefore reduce the number of weft shots, and follow the threading plan with considerable leeway so that the pattern remains squared out.

Don't forget to convert the treadling to rose fashion.

Now for SAMPLE 26. Start the pattern after a tabby on 1-3 down. Throughout swivel a complementary pick is assumed to follow the stated pattern pick and is woven on its tabby partner shaft. The numbers in the treadle plan refer to the shafts that are down.

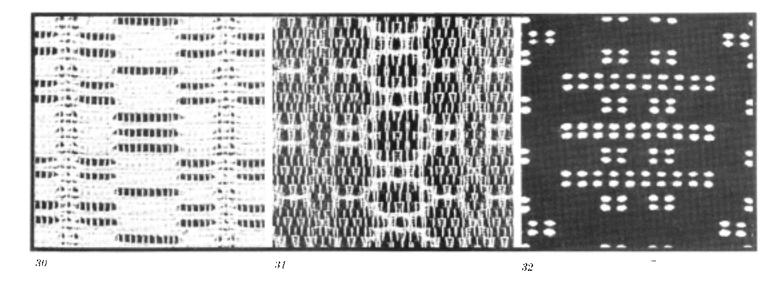
#### Treadle plan for the pattern weft:

C-4, 3, 2, 3, 4 A-1, 2, 1, 4, 1, 2, 1 B-(4, 3, 4, 3) 4 times, then 4 repeat A, then CABA, end with C.

This gives us 36 weft picks instead of the official 50; but with a firm beat it squares the pattern nicely. The warp is 20/2 cotton sett at 30 epi (120/10 cm), the wefts are floss and 20/2 cotton.

The surface of swivel looks like tabby, but it isn't quite tabby. The long floats on the back limit the fabric's use.

SAMPLE 27 uses black sportyarn at 10 epi (40/10 cm) for warp and complementary weft. The pattern weft is sayelle in vanilla.



#### Treadle plan for the pattern weft:

C-1,4,3,4,1

A—(2, 3) 4 times, then 2

B-(1,4) 9 times, then 1

repeat A, then CABA, end with A.

This is an interesting-looking fabric for a heavy bedspread or heavy tabletop covering where little drape is needed. Perhaps as a rug pattern or bathmat.

#### NEEDLEPOINT SWIVEL

SAMPLE 28 starts the first main variation in swivel, known as Needlepoint Swivel. The pattern wefts are woven in the same way as in the principal version of swivel, but the tabby is very different. Instead of following the pattern weft with its tabby partner, use this chart:

```
After P on shaft 1 (down), weave T on 2-4 (down). After P on shaft 2 (down), weave T on 1-3 (down). After P on shaft 3 (down), weave T on 2-4 (down). After P on shaft 4 (down), weave T on 1-3 (down).
```

Whenever the tabby is 1-3 alternating with 2-4, I place my shuttle so the I-3 is thrown from the right and the 2-4 from the left. Then I don't have to remember the weaving plan. The location of the shuttle tells me what to do.

#### Treadle plan for the pattern weft:

C-3, 2, 1, 2, 3 A-4, 1, 4, 1, 4, 1, 4 B-3, 2, 3, 2, 3, 2, 3, 2, 3

You will notice that the needlepoint version has a more subdued color look. If your pattern color is too bright, use this method and it won't look that way.

#### PETITPOINT SWIVEL

SAMPLE 29 is called Petitpoint Swivel. Here the complementary weft and the regular tabby are used, thus I pattern weft pick followed by 2 ground weft picks before the second pattern weft pick. That is, if you have a pattern weft pick on S1 (down), follow with a complementary pick on S3 (down) and then follow

with a tabby pick on 2-4 (down). You need your loom to see this. It is not as confusing when you try it on the loom as it is when you read about it.

| Block 1       | Block 2       | Block 3              | Block 4       |
|---------------|---------------|----------------------|---------------|
| 1 (down), P   | 2 (down). P   | 3 (down) P           | 4 (down) P    |
| 3 (down). T   | 4 (down), T   | 1 (down), T          | 2 (down), T   |
| 2-4 (down), T | 1-3 (down), T | 2-4 (down), T        | 1-3 (down). T |
| 1 (down), P   | 2 (down), P   | 3 (down), P          | 4 (down). P   |
| 3 (down), T   | 4 (down), T   | 1 (down), T          | 2 (down). T   |
| 2-4 (down), T | 1-3 (down). T | 2-4 (down), T        | 1-3 (down), T |
| 1-3 (down), T | 2-4 (down). T | 1-3 (down), <i>Т</i> | 2-4 (down), T |

There are 7 shots in each block. For pattern purposes I omitted block 4 in my sample. I tried to omit block 2 to get better proportions for my alleged circle, but going from block 1 to 3 without block 2 destroyed the tabby structure by producing "bunching together" of the 20/2 tabby wefts. You could go from block 1 to block 3 by omitting the 7th shot of the block immediately preceding this block change. I elected the treadling below, keeping block 2 because it added the little dots around the roses for the overshot look.

#### Block treadle plan:

C—block 3, once A—blocks 2, 1, 2, once each B—block 3, twice repeat A, then CABA, end with C.

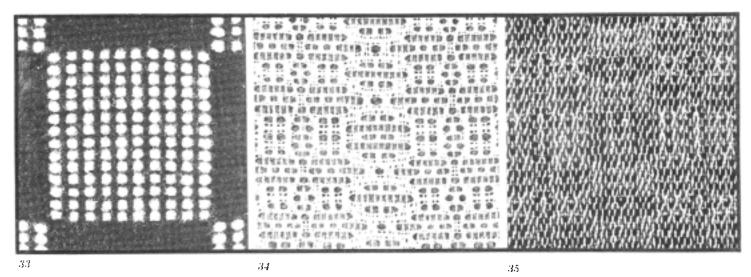
Since the B unit has a repeat of block 3, don't forget to omit the 7th shot of the first block 3. The pattern weft is a pearl 5.

I have also done this with the same warp sett at 24 epi (100/10 cm), but it is too loose and the floats on the back are too long.

SAMPLE 30 is Petitpoint variation No. 1. Use the 20/2 warp at 30 epi (120/10 cm) with red pearl 3 for pattern and white pearl 3 for the ground.

#### Treadle plan:

C—P on S 3 (down), T on S 1 (down), repeat to total 6 shots, then T on 2-4 (down), T on 1-3 (down), for a grand total of 8 shots.



A—the same as C except weave P on S 1 and T on S 3. the B—same as C, do 3 times. You need not drop the last We

shot of the block to repeat here. Very modern.

SAMPLE 31 is Petitpoint variation No. 2. Starting with the preceding sample, I changed the pearl 3 white tabby to 20/2 natural, then I omitted the 2 tabby shots between the blocks. Without those tabbies we must not weave blocks 1 and 3 alone because of lack of tiedowns. Use all 4 blocks as follows:

#### Treadle plan:

C-Pon S 4 (down), Ton S 2 (down), 3 times for 6 shots Pon S 3, Ton S 1, 3 times for 6 shots Pon S 4, Ton S 2, 3 times for 6 shots

A-same but 1, 2, 1, instead of 4, 3, 4

B—same as C but 4, 3, 4, 3, 4, instead of 4, 3, 4 (2 more blocks).

It seems incredible that 30 and 31 are such closely-related samples.

SAMPLE 32 uses black sportyarn at 10 epi (40/10 cm) for warp and yellow sportyarn for pattern weft with black as ground weft. Treadle like the first petitpoint in sample 29 with 7 shots per block.

#### Treadle plan:

C-blocks 3, 2, 3

A—blocks (4, 1) twice, then 4

B-blocks (3, 4) twice then 3

This sample is not as good as #27, the previous knitting yarn version.

SAMPLE 33 is Petitpoint in a sportyarn warp sett at 10 epi (40/10 cm) and a pattern weft in red that is a little heavier than regular knitting worsted weight sayelle.

A more block-like effect is obtained by using only two pattern blocks and weaving approximately square. When the blocks repeat, you must drop the 7th shot of each block. At the end of a large square, put the 7th shot back in. This will separate the blocks and remove the pair effect of petitpoint which I did not want here. We now have a fabric looking more like Bronson swivel than overshot.

#### Treadle plan:

C-block 3 (see p. 27)

A-block 1, 4 times

B-block 3, 7 times

repeat A, CABA, end with C.

SAMPLE 34 is a Petitpoint variation I found in Margaret Newman's notebook in the Pinellas Weaving Guild library. This involves one pattern weft followed by 2 tabbies. 20/2 warp and ground weft with pattern weft of sportyarn. The extra tabbies come to the surface in an effect both three-dimensional and lacy.

#### Treadle plan:

C—P on S 4 (down), T 1-3 (down), T 2-4 (down)

P on S 3, T = 2-4 (down), T = 3 (down)

P on S 4, T 1-3 (down), T 2-4 (down)

A-P on S 1 (down), T 2-4 (down), T 1-3 (down)

P on S 2 (down), T 1-3 (down), T 2-4 (down)

P on S 1, T 2-4 (down), T 1-3 (down)

B—Same as C but 2,1,2,1,2, rather than 2,1,2 repeat A, repeat CABA, end with C.

SAMPLE 35 is a two-color variation swivel based on Catherine Stirrup's Beaded Effect Style. That is a twill block effect, as is Italian Bound Weaving, but again I have adapted it to our Whig Rose to show the pattern.

Color A goes on shaft 1 for pattern and color B goes on shaft 3 as complementary weft; both colors should stand out from the warp. Since the combination of the threads is thicker than a combination with 20/2 weft, fewer weft picks can be used. Pearl 5 brown and orange are in the sample.

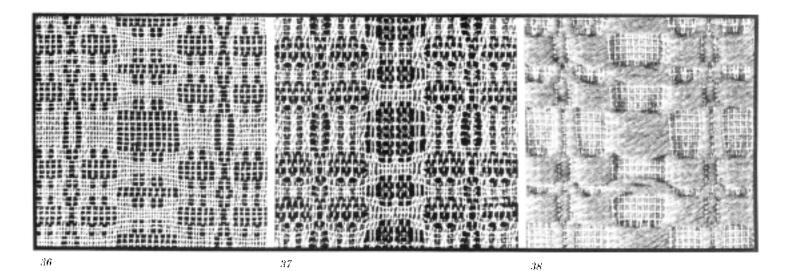
#### Treadle plan for color A:

C-3, 2, 3

A-4, 1, 4, 1,4

B-3, 2, 3, 2, 3, 2, 3

repeat A, then CABA, end with C.



Remember, the numbers are the shafts that are down and each pick is followed by a tabby partner in color B.

SAMPLE 36 is a swivel I call Possibly Mine #1. No. 33 suggested to me that I might do a swivel more like Bronson blocks in the thinner threads. I started after the 1-3 tabby on a 20/2 warp and used a regular tabby sequence, 1-3 and 2-4 with 20/2 tabby and floss for pattern weft.

#### Treadle plan for the pattern weft:

C-S I (down), twice (tabby in between)

A-S 4 (down), twice; S 1 (down), 4 times; S 4 (down), twice

B-S 3 (down), 8 times

repeat A, repeat CABA, end with C.

This is similar to needlepoint swivel, but the pattern areas are block-like rather than alternating sheds.

There are several aspects to this that create problems. At the selvedge, wrap the threads around each other to hold both out to the edge. Here the block on S 2 (down) is not used and the block on S 4 (down) rounds off the large and small roses at the same time: a nice economy. However, the S 4 (down) block has pattern wefts that tend to slide under the adjoining tabbies: a major drawback. This block could be eliminated, but then the pattern would not resemble overshot. On other threadings that might not be such a disadvantage. Since the problem exists only in the very short block, perhaps longer blocks would cure it. I shifted the threads back into place manually after I finished weaving the sample, but they did not stay in place.

SAMPLE 37 is my very favorite in the whole study. I call it Possibly Mine #2.

In this fabric, wherever the pattern block is a 1-2 block, separate the 1 from the 2 and put dominant color A on shaft 1 alone and recessive color B on shaft 2 alone. Do the same with the other 3 blocks. Intersperse a regular tabby sequence of 20/2 weft. The warp is 20/2 sett at 30 epi  $(120/10 \, \text{cm})$ . Weft for pattern is pearl 5, A = brown, B = orange.

| Block 1   | Block 2   | Block 3   | Block 4      |
|-----------|-----------|-----------|--------------|
| 2-4 T     | 1-4 T     | 2-4 T     | 2-4 T        |
| S 1 down, | S 2 down, | S 3 down, | S 4 down     |
| weave A   | weave A   | weave A   | weave A      |
| S 2 down. | S 3 down, | \$4 down. | S 1 down     |
| weave B   | weave B   | weave B   | weave B      |
| 1-3 T     | 1-3 T     | 1-3 T     | 1-3 <i>T</i> |

#### Treadle plan:

C-block 3, twice

A-blocks 4, 1, 1, 4

B-block 3, 6 times

repeat A, then CABA, end with C.

This sample has a three-dimensional effect. The 20/2 is on the top more than usual and the pearl 5 pattern wefts appear to be down in pockets, the way honeycomb ought to look.

#### 13 TIE-UP ON OPPOSITES

In SAMPLE 38 the pattern weft P is thrown with 1 shaft up (not down, as in swivel), as in Grace Blum's tufted weave. The ground weft T is thrown in the opposite shed which has 3 of the shafts lifted. I included block 4 in the treadle plan; this is not in her version. This is a small block and hardly alters the proportions but somehow gives a better overshot look. Miniature patterns have shorter weft floats generally and many would be more attractive woven with a  $\frac{2}{2}$  tie-up, due to the richer color areas. The treadling given is for a jack loom:

| Block 1    | Block 2 | Block 3 | Block 4 |
|------------|---------|---------|---------|
| 1 <i>P</i> | 2 P     | 3 P     | 4 P     |
| 2-3-4 T    | 1-3-4 T | 1-2-4 T | 1-2-3 T |

The warp and T weft are 20/2 cotton. The P weft is sportyarn.

#### Treadle plan:

C-block 1, twice

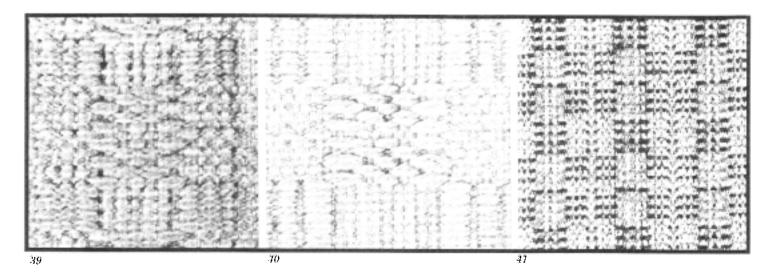
A-block 4, once

block 3, five times

block 4, once

B-block 1, seven times

repeat A, then CACA, end with C.



Sportyarn is used again because thin yarns don't float as well over any distance. The weft on block 4 adds a great deal to the pattern as a transition. With short floats pearl 3 is good.

#### MYSTERY LACE

SAMPLE 39 is called Mystery Lace. This requires a wider warp sett. I put the 20/2 warp at 24 epi (100/10 cm). There is no tabby. The red sportyarn weft is supposed to be used in twill blocks. Had I done that, life would have been simpler. But again I want to show the Whig Rose pattern and it is just not appropriate to this weave.

```
Block 1, weave 1-3, 1-2, 1-3, 1-2, 1-3 (5 picks of red per block)
Block 2, weave 2-4, 2-3, 2-4, 2-3, 2-4
Block 3, weave 1-3, 3-4, 1-3, 3-4, 1-3
Block 4, weave 2-4, 4-1, 2-4, 4-1, 2-4
```

This structure means that warp threads will float over an entire weft block and the warp floats form the pattern above a solid red base.

#### Treadle plan:

C—Block 3 A—Block 4, 1, 4, 1, 4 B—Block 3, 4 times repeat A, CABA end with C.

In unit B an extra pick on 1-3 must be thrown between each repeat for tie-down purposes. I had tried this at 30 epi  $(120/10~{\rm cm})$  but my folding loom would not beat it down into a pattern. Perhaps a closer relationship between the threads and less concern about the length of warp floats would have been better.

SAMPLE 40 of Mystery Lace is an improvement with 10/2 warp at 15 epi (60/10 cm)

#### Treadle plan:

C—Block 3 (see above)
A—block 4,1,4,1,4
B—block 3, 8 times
repeat A, CABA end C.
30 WINTER 1982-1983 WJ

Less attention to Whig Rose would make a superior cloth. There are twill block mystery laces that are very nice.

SAMPLE 41 is a Swedish Fine Overshot. The 20/2 warp is sett at 60 epi (240/10 cm). No tabby is used. Treadle 1-2, 2-3, 3-4, 4-1 throughout with no variation.

Colors are burgundy for the pattern, with turquoise, green and smoke blue. Smoke blue always follows green, which always follows turquoise, which always follows burgundy. The pattern appears (although weakly) in the burgundy. Each set of 4 sheds in twill sequence starts with the color which puts the burgundy on the shaft combination of the pattern.

#### Treadle plan:

C—smoke blue on 1-2, put in 4 shots (each color once) A—burgundy on 1-2, put in 12 shots (3 sets) B—smoke blue on 1-2, put in 16 shots repeat A, then CABA, then end C.

You can see that the color sequence has a single interruption at the beginning of each new Whig Rose block. Otherwise the same twill block order continues.

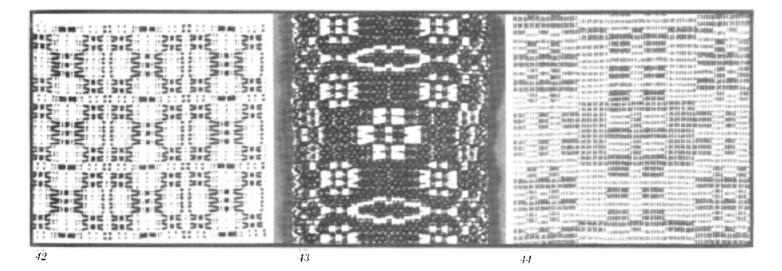
This is a very rich pattern. A fine wool is a good weft here. Since I am allergic to wool, I unplied 4 ply sayelle for weft. I wouldn't recommend that for a sizable project!

#### MISCELLANEOUS WEAVES

SAMPLE 42 is a variation of Sample 41. It no longer resembles Swedish Fine Overshot. Tabby weft and warp are 20/2, the warp is sett at 60 epi (240/10 cm). Pattern weft is 20/2 in red.

#### Treadle plan for the pattern weft:

C—1-2, twice
A—3-4, 4 times
B—4-1, 6 times
repeat A, CABA, end C.
Alternate pattern picks and tabby picks.



This sample shows the opposite tabby progression from the one recommended throughout. The blocks are so small that flaring ends of each pattern pair connect and enhance. Either approach to tabby is acceptable so long as you are consistent throughout.

SAMPLE 43 is a technique of John Poole, designed for belt-weaving and woven in that fashion in the sample. The warp is pearl 5 green, sett at 30 epi (120/10 cm), the tabby weft is 50/3 and the pattern weft is floss in peach color. This is, of course, very strong, as is desirable in a belt or strap. It also makes a good place mat.

#### Treadle plan for the pattern weft:

C—(1-2, 4-1, 3-4) twice, 4-1, 1-2 A—2-3, twice; 3-4, 4 times; 2-3, twice B—1-2, 4 times; 4-1, 4 times; 1-2, 4 times repeat A, then CABA, end with C.

#### WARP FACED OVERSHOT (Bea Needham's)

SAMPLE 44 is woven as a tight warp-faced fabric without floats. It is a very durable and practical fabric with a mat-like quality. There is no drape in the fabric at all.

The warp is 20/2 cotton sett at 60 epi (240/10 cm), colors brown and natural. The colors alternate. The wefts are 5/2 cotton (coarse) and 60/3 cotton (fine).

The original Whig Rose threading is expanded. For each 1-2 overshot threading unit, thread 1,2,1,2,1,2,1,2, with dark on shaft 1 and natural on shaft 2. For each 2-3 overshot threading unit, thread 3,4,3,4,3,4,3,4 with dark on shaft 3 and natural on shaft 4. For each 3-4 overshot threading unit, thread 2,1,2,1,2,1,2,1 with dark on shaft 2 and natural on shaft 1. For each 4-1 overshot threading unit, thread 4,3,4,3,4,3,4,3 with dark on shaft 4 and natural on shaft 3.

This means there are 4 times the number of ends as in the basic threading plan of Whig Rose. The warp is sleyed twice as close, resulting in a pattern twice as wide.

#### Treadling blocks:

| Block 1     | Block 2     | Block 3     | Block 4     |
|-------------|-------------|-------------|-------------|
| 1-4, coarse | 1-3, coarse | 2-3, coarse | 2-4, coarse |
| 2-3. fine   | 2-4, fine   | 1-4, fine   | 1-3, fine   |

#### Treadle plan:

Border---blocks 4, 3, 2, 1 (two times), 2, 3

A—blocks 4 (2 times), 1 (2 times), 4 (2 times), 1 (2 times), 4 (2 times)

B—blocks 3 (2 times), 2 (2 times), 3 (2 times), 2 (2 times), 3 (2 times)

repeat A and start again from the beginning of the border.

#### CONCLUSION

While it may well be true that there is nothing new in weaving, there is still a great deal of satisfaction in figuring out problems so that the weave not only works from a construction standpoint, but also makes a pleasing fabric. Tastes differ, but some agreement is possible.

Two large areas have been omitted from this showing of Whig Rose. They are color and multi-shaft weaves. Both are enormous areas. For example, some overshots lend themselves to a simple plaid effect by threading repeats in alternate colors and treadling the same way. I have woven a Whig Rose wall hanging where I had planned alternating warp threads of 8/4 in green and blue. The tabby weft was 8/4 in scarlet and the pattern weft was 4/4 in yellow. It sounds terrible, but many people have admired my yellow and "brown" hanging from across the room.

In closing, I wish to point out how much more flexible and usable are the small and/or miniature patterns. The large ones don't lend themselves nearly so well to experimentation. They are lovely as traditional coverlets but that is only a small part of weaving. I have a single bed coverlet woven in Whig Rose swivel with sayelle. It even looks modern. The small patterns are good when woven large for rugs. They have the proportion and scale of overshot and yet a bolder look.

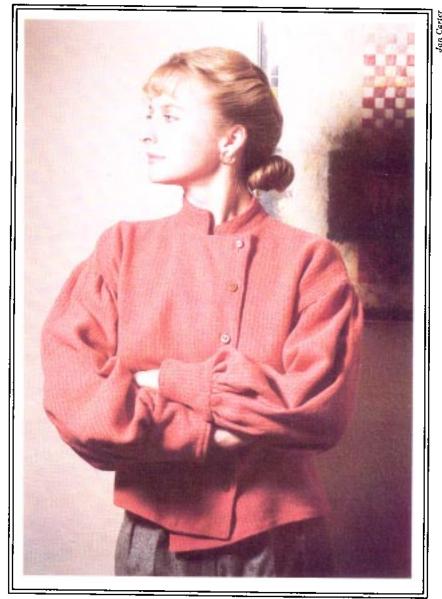
## The BASICS

# COTTON-LINEN GARMENT IN BASKET WEAVE

For many weavers, cotton-linen blends are the favorite yarns for wearables.

Bomullin is a 50% cotton, 50% linen blend manufactured in Sweden and distributed in the U.S. by Glimakra Looms 'n Yarns, Inc. The size is 22/2 and yields about 1600 meters per 250 g spool. It comes in a wide array of colors. From a weaver's viewpoint, this yarn behaves more like cotton than like linen. The cotton brings enough elasticity to the yarn that tension problems usually associated with a linenwarp are not present. The woven fabric is also more crease resistant than linen. The fabric washes well and can be dried in a dryer. The addition of a water softener makes this into quite a soft fabric that requires little ironing. Beware of shrinkage! From the width in the reed to the width of the woven fabric there is a 12% loss. It could be more if the fabric is not woven with a temple. For most weaves, the correct sett is 16 epi (60/10 cm). Placemats and other items that call for a tighter weave may need a sett of 18 epi (70/10 cm) or 20 epi (80/10 cm). Fabric woven at 16 epi may look loose on the loom but the holes fill in during washing.

For this garment we used two related reds (#270 and #251). In the warp the colors are used in a 3/3 order, in the weft in a 1/1 order. This subtle blend of colors gives depth to the texture of basket weave.



Garment designed and woven by Ede Cook.

WARP: 20/2 linen cotton blend: bomullin. One spool (250 g) #270, one spool (250 g) #251.

Color order:  $\frac{\#270}{\#251}$  3 3

repeat

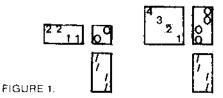
WEFT: same as warp, one spool of each color. Color order: 1/1 alternation.

WIDTH IN THE REED: 40½" (108 cm).

TOTAL NUMBER OF ENDS: 648. LENGTH OF THE WARP: 3½ yards (3.2 m)

THREADING, TIE-UP AND TREADLING: Fig. 1.

Basket weave can be woven on a two or four shaft loom.



WEAVING TIPS: Weave with two shuttles, one with each color. Alternate the shuttles, a pick of one, a pick of the other (pick-and-pick order) and start them from opposite sides.

SIZE OF CLOTH: When taken off the loom: 38" X 74" (96 X 188 cm); after washing and drying: 37" X 69%" (94 X 177 cm).

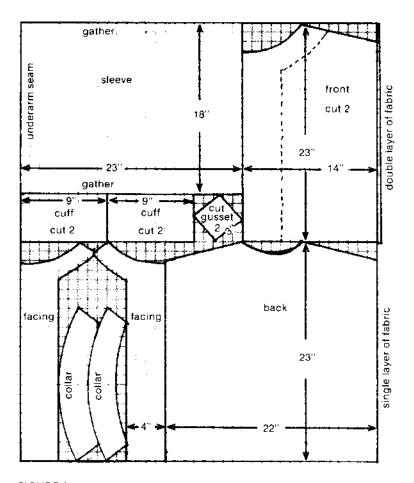


FIGURE 2.

LAYOUT AND CUTTING DI-RECTIONS: See Fig. 2. Watch where the cloth is folded and where it is a single layer!

#### SEWING INSTRUCTIONS

- 1. Sew front to back at shoulders.
- 2. Sew the sleeve sides together, leaving 3" (7.6 cm) open at each end. Sew two sides of the gusset to the sleeve side seams.
- 3. Sew the front and back together at the sides up to 9½" (24 cm) below the shoulder seams.
- 4. Gather the sleeve to fit the armhole and sew the sleeve to the main body.
- 5. Stay stitch around the neck opening.
- 6. Sew the two collar pieces together.
- 7. Attach collar to main body,
- 8. Sew the cuff pieces together. Fit the sleeve to the cuff by gathering.
- 9. Make buttonholes and sew buttons.
- 10. Hem.
- 11. Topstitch cuffs, collar and front edges.

## Handweaving With Robert and Roberta ATRULY EXCELLENT HOME STUDY PROGRAM

STARTING WITH VOLUME ONE, THE FOUNDATION SERIES OF ASSIGNMENTS INCLUDING EQUIPMENT, DESIGNING, FIBER, COLOR, DRAFTING & BUSINESS PLUS ESPECIALLY PLANNED WEAVING PRODECTS TO BUILD YOUR FUNDAMENTAL WEAVING KNOWLEDGE AND SKILLS.

VOLUME TWO, THREE & FOUR CONTINUE STEP BY STEP TO HELP YOU PROGRESS FAR BEYOND THE MANY WEAVERS WHO HAVE FLOUNDERED YEAR AFTER YEAR.

WRITE FOR FREE DETAILS INCLUDING AN INDEX TO

AYOTTES' DESIGNERY, DEPT. WJ, CENTER SANDWICH, N.H. 03227

## new Sampler - Workshop Loom Designed for the serious weaver

This new Loom embodies all of the features experienced weavers asked for: 4-harnesses with 10" weaving width, big open shed and lots of room from beater to breast beam.

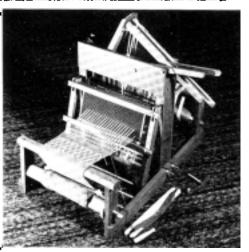
It folds, is easy to take with you. Open it is 14 x 25 x 18" high, folded just 9" high. Weighs 18 lbs. Other features are: Swedish string heddles, cast bronze ratchets, harnesses easily removable. Simple lever action. Easy to assemble. Made of white pine and birch, unfinished. Excellent for school instruction use.

Guild Members We have special quantity prices for members of established Guilds. Investigate. Have a Sampler in your studio—it is the mark of the true accomplished weaver.

Send self addressed, stamped long envelope for catalog sheet and Gulld prices. Do it today.



Walnut St. Washington Island, WI 54246



#### We're Proud....

... to tell you that we are now handling:

#### KLIPPANS YARNS

At present we stock:

- ASBORYA
- MATTYARN
- 7/2 SWEDISH WOOL

Of course these are not new yarns to us. We've been selling the same yarns under another label for years.

As we gain experience, we will enlarge our line. Your cooperation is appreciated.

Write Dept. C for details. DEALER INQUIRIES INVITED.



#### SCHOOL PRODUCTS CO.

1201 Broadway, New York, N.Y. 10001

## PRODUCT NEWS

AVL LOOMS announces a new folding dobby loom, new weaving equipment and introduces the Generation II Compu-Dobby system. The 16-shaft folding dobby loom is available in 24" and 30" weaving widths. The Compu-Dobby system consists of an electronic interface between an Apple computer and the AVL dobby head and a program which allows a weaver to use the system without previous knowledge of computers. The new equipment includes a fly shuttle double box and a large cone rack.

BROWN SHEEP CO. INC. produces wool yarn in a fast-increasing color range. The yarns are suited for tapestries, rugs, outer garments and knitting. They offer a wool warp (1600 yds./lb. or 3224 m/kg) in 3 nice natural colors: a single wool (120 $\bar{0}$  yds./lb. or 2526 m/kg). which can also be ordered in a two ply, a single wool (784 yds/lb, or 1650 m/kg) which can be ordered two ply and a 15%/85% mohair/wool blend single. Dealer's inquiries are welcome, Brown Sheep, Co., Inc., Rt. 1. Mitchell, NE 69357.

JANE CALLAGHAN'S mail order guide for needlecraft and craft supplies (1982), P.O. Box 2046 Grand Central Station, New York. NY 10163. An alphabetical listing of products used by textile people and related crafts. An excellent way to find a supplier for an unusual item. There is a complete listing of addresses of suppliers and the cost of their catalogues.

IVY CRAFTS IMPORTS makes available in the US everything that is needed for fabric painting and dyeing, using French Tinfix dyes. The shop imports an English translation of the French book "Painting on Silk" (see book reviews). For \$3.00 lvy Crafts Imports will send a lot of informative material including a booklet by Diane Tuchman on fabric painting. Ivy Crafts Imports, 5410 Annapolis Rd., Bladenburg, MD 20710.

TRADITIONAL FIBER TOOLS, 885 Glendower. Ashland, OR 97520, produces tools for the spinner, weaver and knitter: Yarn blockers. swifts, drum carder needles.

ON-LOOM CARDWEAVING CARDS, 8" square with 8 holes are now available, \$3.95/doz. Herbi Gray, P.O. Box 2343, Olympia, WA

EDEN TRAIL SOUTH, 35 Ann Street, Dover, NJ 07801, have put out their first catalogue of sheep and wool products. The products include sheep art, stationaries, knitting needs, wools, spinning and weaving equipment and an assortment of gift items. Catalogue \$1.00.

CYREFCO, P.O. Box 140, Palo Alto, CA 94302, have an informative catalogue available on the products they manufacture. These include a 45", 4 shaft counterbalanced loom that can be converted into an 8 shaft model. warping mills, weaver's bench and spool/cone rack.

### MACOMBER LOOMS

THE KEY TO YOUR WEAVING DESIGNS



THE DOBBY WITH A DIFFERENCE

> **Beech Ridge Road** York, ME 08909 207-363-2808

## **MACOMBER LOOMS**

A microcomputer that controls the harness tie up and treadling sequence of your pattern. You can add if on to your standard Macomber loom in less than one hour with simple tools, or order as an accessory on your new Macomber loom giving you two looms for the price of one conventional dobby loom.

Conventional dobby looms lock the weaver into a preprogrammed pattern without allowing for correction or modification of the pattern during weaving.

The DESIGNER'S DELIGHT overcomes this limitation with three selection modes.

Design Mode design, change, correct, and record the pattern as you weave it.

Automatic Mode-preprogram your pattern, step on the pedal, throw the shuttle and weave.

Manual Mode when you just want to play or experiment and not record your pattern.

In addition your pattern may be displayed at any time on the L.E.D. display. The DESIGNER'S DELIGHT features single pedal operation, permanent storage of your tie up, and permanent storage of your treadling sequence on seperate keys for future use. For example you may use the same tie up key but different treadling keys for many patterns.

This unique yet simple device allows us to offer up to 32 harnesses capacity in 24".72" weaving widths with single pedal operation. widths with single pedal operation.

Get the best! Buy a MACOMBER LOOM. Ask the weaver who owns one.

For further information call or write MACOMBER LOOMS Beech Ridge Road York, ME 03909 207-363-2808

# INKLE BANDS AS FINISHING DETAILS ON GARMENTS

## By Britta Brones

Do you think of inkle bands as guitar straps, woven in pearl cotton? Or as bag straps, woven 3-4 inches wide? That's true, too, but they can be woven so differently and used for so many other purposes, you wouldn't place them in the same category. . .

I use bands on almost all my garments. They are from \$\frac{1}{2}(12.7 \text{ mm})\$ inch to 2 inches (51 \text{ mm}) wide, woven with everything from silk to wool, 8 to 30 epi (30 to 120/10 cm), plain or decorated and serve as binding tape, closures and collars as well as decorations.

#### THE LOOM

There are several different kinds of inkle or band looms. They all share the fact that every other warp thread is mobile. The rest are stationary, strung through circular twine heddles that are slipped over a bottom peg. You make the two sheds by alternately raising or lowering the mobile warp threads with the hand that is not busy with the shuttle. It is best to throw the shuttle always from the same direction for the same shed every time: this is a good rule on a floor loom, I always throw from the left for a rising shed on my inkle.

#### WEAVING THE BANDS

# TRICKS TO SECURE STARTING AND FINISHING WEFT ENDS

At start: From wrong direction (for me: throwing from the right for a rising shed) enter shuttle. Leave the end hanging outside. In the next shed use this end as weft. In the third shed go back to using the shuttle

At the end: In the next-to-last shed weave in (only) a loop made from another piece of yarn (loop side is the non-shuttle side). The loop extends on one side, the open threads on the other side. Weave the last shed with the shuttle, cut

off the thread so that it is longer than the band is wide. Thread end through the loop, then pull on loose end of the loop so the welf pulls through. Discard loop and cut off the thread.

#### WARPS AND WEFTS

What is good on a floor or table loom is good on an inkle and vice versa. For example: 1-ply Harrisville gives you headaches as warp but is wonderful as weft; with linen it is hard to get good and even tension; mohair or loopy yarns make sticky warps.

Pearl cotton gives the typical "inkle band look." Embroidery floss makes thin, beautiful bands in lots of colors with a silky sheen. Carpet warp and chenille weft with a sett far enough apart makes a weftfaced "rug band."

With rayon as a belt yarn, it's good to line the band with iron-on belt facing. Silk is wonderful... wool is my favorite and can be pressed into curves for necklines. It fulls well.

#### SETT

Think of your big loom: Warp far apart-weft faced, warp close—warp faced; warp and weft, even spaced—50-50 weave.

#### WASHING

Wash by hand in Ivory detergent and warm water. Agitate a bit. Rinse and pat dry in towel. Wrap around round object (a yogurt container is good) to dry. Pin the end to the previous layer. After a couple of hours it is usually dry enough to remove.

#### DESIGN

- Make the outer warp threads the same color as the weft for a tidy appearance.
- Stripes are almost always done in the warp.
  - One warp thread of one color makes dots in the finished band.

Two threads of one color makes a zigzag line.

Three threads of one color makes a ladder.

Four threads of one color makes a solid line.

- Two threads through one heddle give texture. Thread two heddle warp ends and then two nonheddle warp ends and you get basket weave with double weft yarns.
- If you want a geometrical pattern that is symmetrical, use an uneven number of warp threads so that you will have one as middle thread and have corresponding threads on both sides in the same shed (It seems to work best to start and end with a warp end through a heddle).
- For more patterns there are excellent books on the matter.

#### COLOR DESIGN

Cut off short strands of colors you want to use. Lay them over your knee or on a table and arrange them until you get the look you want. Remember that you only need to arrange half the band if the pattern is to be reversed (symmetrical).

#### HINT

Pick a heavier thread or stronger color, or reverse color, for the middle thread since it will only show as a dot in the pattern. This is especially nice for a band that will be folded in half. Remember to have the outer threads, either one or two, the same color as the weft.

#### USES OF BANDS ON GARMENTS

If you want an inconspicuous utility band, were it in the same colors and with the same yarns and patterns as the garment. If different colors and patterns are used, the band also functions as decoration or embellishment.



At the edges of a garment you can use a band either fold over the edge or flat on either the inside or outside or both.

Folded band over neckline; For this it is easier if you press it into a circular shape first. This works best with wool bands. Fold the band in half lengthwise, then pin one end of the band to the ironing board. Press with steam and pull on the open edges; this will stretch them. Work a little distance at a time; when the whole neck band is pressed in this manner it is shaped. Lay it in a circle and press on top of the whole band. Now it's very easy to sew on. Sandwich the neckline in the band. Machine stitch lower edge of the band to the garment (wrong sides facing each other). Fold the band over the edge to the outside and handstitch on the right side, covering up the machine stitching. This neckline is very flat and smooth.



FIGURE 1. Fold band over to outside, covering inside machine stitching, then attach by hand stitching.

Other edges: At the bottom of sleeves, use a folded band or use it to cover up the hem on the inside like seam binding, which is a very elegant and subtle detail. On the fronts, fold it over the edge, with or without loops for buttons. Or use the band flat, either on top of the edge or extending beyond. If the latter, you can weave buttonholes in the band, just use two shuttles for an inch or so.

For the bottom hem use bands folded, flat or flat and extended. Also make waist bands with inkles.

On the top of pockets, use bands flat or folded, with or without a loop for a button.

Button loops can be made two ways: 1. Fold band in half lengthwise, slipstitch the open

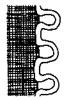




FIGURE 2. Three methods of making button loops with inkle bands.

Britta Brones has a law degree from Sweden, but she became a weaver when she moved to the US in 1974. She weaves one-of-a-kind garments which draw heavily on her Swedish background. edges together and press the band into "U"-shape.

2. Fold a flat band to get two parallel legs and a "V" at the tip. Sew down the tip.

Bands over seams: 1. Zigzag the two edges of the garment, overlap them and zigzag again. Lay the band over the seam, baste and handsew it on with a slipstitch. Handsewing allows for stretching and it also looks better. This way of piecing eliminates bulk and is good to use on sleeve-to-bodice seams and side seams.

2. Have the seams face the right side of the garment (the outside), zigzag, trim and press seam apart. Cover with the band and sew that on in the same way as mentioned above. This gives you a reversible garment. My main reason for using it is to cover seams with a tendency to fray.

To give more room inside a garment: (In other words it shrank or you wove it too small).

Put the garment pieces on a table with desired width in between and cover the space with a band that is a little wider. Handsew or machine sew it on. You can either line the garment or put another band on the inside, over the other.

#### Mandarin collar from a band:

- 1. Weave the band double as long as desired collar and double as wide. Then fold. Double layers cover up the neck seam and make a sturdier collar. If it isn't stiff enough, put in interfacing.
- 2. Weave two different bands, one for the inside and one for the outside.

The collar can either have a slit woven in to form a buttonhole or a loop can be used.

Cuffs: Weave with the same variations and closures as described for collars.

Decorations: For this, bands can be used on top of all the earlier mentioned parts: on collars and cuffs, along fronts, hemlines and edges, in one, two, three or more rows, well EVERYWHERE.....



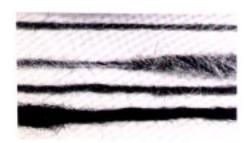
Bag designed and woven by Elizabeth Kolling-Summers

# THE SIMPLEST OF ALL TAPESTRY TECHNIQUES USED IN A CARRYING BAG

This unusual bag is woven with commercially-available handspun yarn but can equally well show off one's own efforts at spinning. Any 2-shaft loom can be used, be it rigid heddle, tapestry, or floor loom.

WARP: perle cotton, size 3/2 (1 oz. or 28 g).

WEFT: handspun wool (Beka's La Sonrisa—3 oz. or 85 g of gray (#131), 1 oz. or 28 g of rust (#106), 3 oz. or 85 g of dark brown (#133). Note: these come in 100 g (3.5 oz.) skeins, at 110 m (120 yds.) per skein. This project requires a total of 3 skeins.



TOTAL NUMBER OF WARP ENDS: 51

LENGTH OF WARP: 1½ yards (1.4 meters).

SETT: 5 epi (20/10 cm), sleyed every other dent in a 10-dent reed.

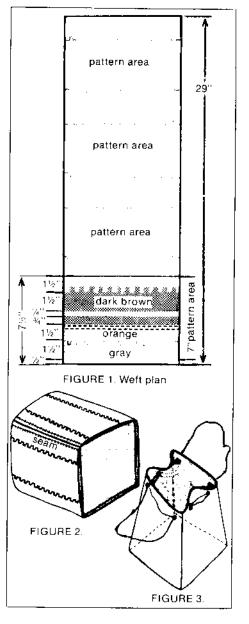
WIDTH IN REED: 10" (25.4 cm).

THREADING, TIE-UP, AND TREADLING: plain weave, weft-faced.

WEFT PLAN: see Fig. 1. Repeat the 7" (17.8 cm) pattern area four times. Weave an extra ½" (1.27 cm) at the beginning and end.

MEASUREMENTS: 91/2" x 29" (24.1 cm x 73.7 cm).

FINISHING: While on the loom, twine at both warp edges.



To assemble the purse, first machine stitch together the ends of the woven strips using a ½" (1.27 cm) seam allowance. To hide the fringe, hand whip down each edge to the main part of the woven material, tucking the warp ends out of sight. Be careful to not let the stitches show on the right side of the material.

For the purse bottom, cut a square piece of matboard (or similar weight cardboard) measuring 63/4" (17.2 cm) along each side. Then cut two 7%" (19.7 cm) squares out of brown ultra suede fabric. Center and pin the square matboard inside the two squares of ultra suede fabric. With matching thread and using the zipper foot, machine stitch close to the covered matboard edge, around all four sides. Next, place the bottom edge of handwoven material around the suede-covered matboard. Adjust the material so that the seam is at one corner and the 7" (17.8 cm) pattern blocks are centered on each side of the covered mathoard (see Fig. 2). Using the zipper foot and a 3%" (0.95 cm) seam allowance, machine stitch each side of the suede bottom to the edge of the purse material. Sew along the previous stitching, close to the matboard edge. The corners will have to be sewn by hand, using a running stitch. Turn the purse right side out.

To make the holes for the drawstrings, use '4" (0.64 cm) silver eyelets. With straight pins, mark each side of the bag I '2" (3.8 cm) in from the side edge and 1" (2.54 cm) down from the top edge (see Fig. 3). There should be a total of 8 markings, 2 per side. At each pin marking, work in an eyelet by separating the weft, exposing the warp, and inserting the larger eyelet half between two warp threads. Proceed with hammering the eyelets in place according to the usual method.

For the drawstrings, use two 40" (101.6 cm) lengths of leather lace. Insert through the holes, as shown in Fig. 3, and overhand knot the ends.

# DOUBLE TWO-TIE TWILLS AND BASKET WEAVE

# by Clotilde Barrett with credit to Eunice Smith

For a weaver who has an eight-shaft loom, one of the most exciting threading drafts is the double two-tie unit draft. The units are shown in Fig. 1. Shafts 1 and 2 are the tie-down shafts and shafts 3, 4, 5, 6, 7, and 8 are the pattern shafts. Three of the most popular threading repeats are shown in Figs. 2, 3 and 4.

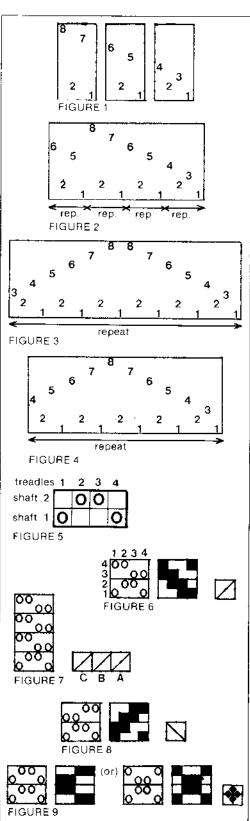
The weave structures that can be woven on the double two-tie unit draft are as varied as they are numerous. Eunice Smith from Long Meadow, MA has done indepth research of these weave structures and has woven many intriguing and beautiful samples. The complete study of Eunice Smith will be published as a Weaver's Journal Publication in early '83. It is a privilege for me to be the co-author of the book.

As an introduction to the technique we will limit ourselves to one BASE. The base refers to the way the tie-down shafts are tied to the four treadles which will weave the four picks of each one of the treadling units.

In the base shown in Fig. 5, the first and the last treadle of each treadling unit is tied to shaft 1, the second and third is tied to shaft 2. The base of Fig. 5 will be used throughout this study.

Note that each threading unit (or block, if the unit is repeated) has an odd and an even numbered pattern shaft.

RIGHT HAND TWILL: A unit (or block) will be woven in right hand twill if its even pattern shaft is tied to treadle 1 and 2 and its odd pattern shaft is tied to treadle 3 and 4. In Fig. 6 the pattern shafts of unit (or block) A are tied to weave right hand—twill.—The—accompanying



drawdown seems to show a left hand twill but this is due to the unfortunate habit of handweavers in the U.S. to start drafting from the top right hand corner while the actual weaving goes from the bottom up. Fig. 7 shows the tic-up for a treadling unit which weaves right hand twill in all the threading blocks of Fig. 1.

LEFT HAND TWILL: A unit (or block) will be woven in left hand twill if its odd pattern shaft is tied to treadles 1 and 2 and its even pattern shaft to treadles 3 and 4. See Fig. 8.

The design symbols of Figs. 6, 7, and 8 show the direction of the twill of the threading block(s) and of the treadling block for which the tie-up is given.

BASKET WEAVE: A unit (or block) will be woven in basket weave (hopsack) if its odd pattern shaft is tied to treadles 1 and 4 and its even pattern shaft is tied to treadles 2 and 3 or, vice versa; even shaft to treadles 1 and 4 and odd shaft to treadles 2 and 3. See Fig. 9.

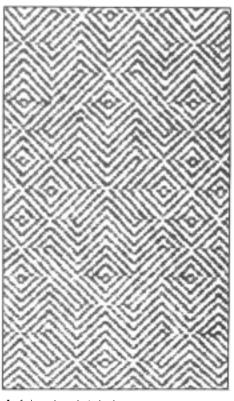
EXAMPLE: Using the threading of Fig. 2 with two repeats of the units, the profile draft is shown in Fig. 10a. Fig. 10b shows the DESIGN KEY. The columns represent the threading units, the rows represent the treadling units, and the design symbols show the weave structure wanted in each block of the cloth. The design key is read from the bottom to top. The extended tie-up (Fig. 10c) is directly related to the design key. The design symbols are translated into tie-ups. The extended tie-up often has repeats of identical treadles. Treadling unit I will weave right hand twill in A and C, left hand twill in B. Treadling unit II will weave left hand

twill in all threading blocks. Treadling unit III will weave left hand twill in A and C and right hand twill in B. Note that treadling block III is the reverse of I. Treadling block IV weaves right hand twill in A and B and basket weave in C. Figs. 10d and e show two more practical tie-ups. d eliminates all the duplicate treadles and ereduces the number of treadles even more by pushing two treadles at the same time to make a shed.

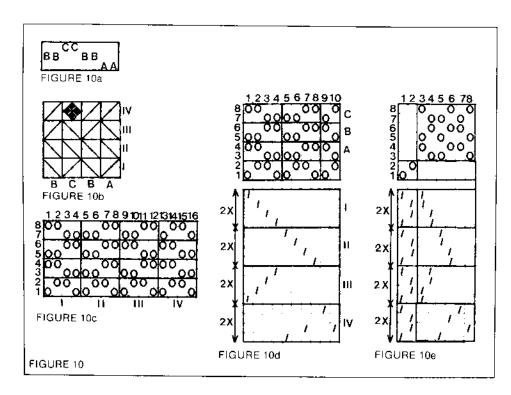
Ready to weave? Almost but not quite. If one would weave the draft of Fig. 10 with very fine or textured yarns and a floating selvedge so that the weft always catches at the edges of the cloth, one may not notice anything wrong. With smooth and heavier yarns though one would notice that if the direction of the twill changes in any of the threading blocks when one passes from one treadling block to another, there is a double weft in

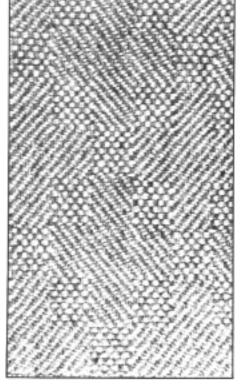
that area. Note for example, that for A (shafts 3 and 4) the tie-up of the 4th and the 5th treadles is the same. This double weft can be avoided by following this important rule: When there is a change in the direction of the twill in any block of the design key, weave the first pick of the treadling block by treadling the first treadle of the previous block and weave all the other picks normally. For example, look at Fig. 10d in which the first pick of the second treadling block would normally be woven with treadle 5. Instead of tr 5, use tr 1 which is the first pick of the previous block. Thus weave treadling block II: tr 1, tr 6, tr-7, tr 8; tr 5, tr 6, tr 7, tr 8; etc.

This brief introduction barely scratches the surface of Eunice Smith's study but will permit weavers to understand the technical principles involved in the making of the following two garments.

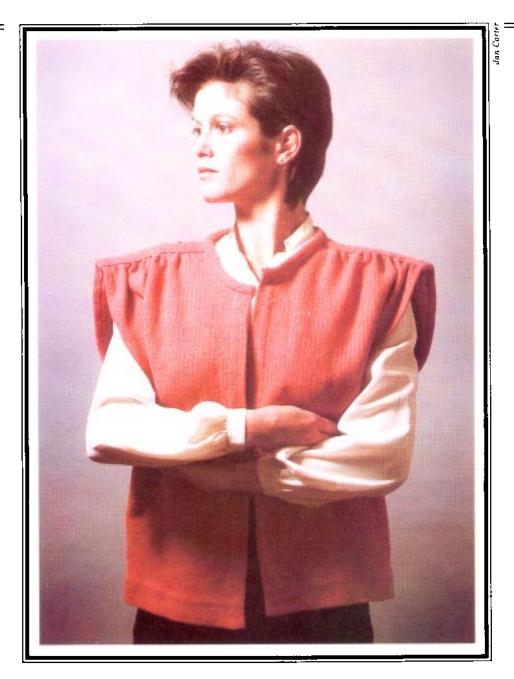


Left hand and right hand twill





Twill and basket weave



#### GARMENT WITH TWILL DESIGN ON BASKET WEAVE GROUND

The garment shown here is woven with twill patterning on a basket weave ground. The weave requires many treadles. See Fig. 1. A simplified pattern may be designed based on Fig. 2 if only 10 treadles are available.

There are two related colors (reds) both in the warp and in the weft. These subtle color effects do not create a pattern but the mixture of these colors produces a livelier and more interesting cloth.

WARP: 22/2 50/50 linen-cotton blend in two colors, red #1 and red #2. Color order of the warp: (3 ends #1, 3 ends #2) repeat.

WEFT: same as warp. Color order of the weft: (1 pick #1, I pick #2) repeat.

The yarns used are Bomullin from Borg #270 and #251 (2 spools of each).

SETT: 16 epi (60/10 cm)

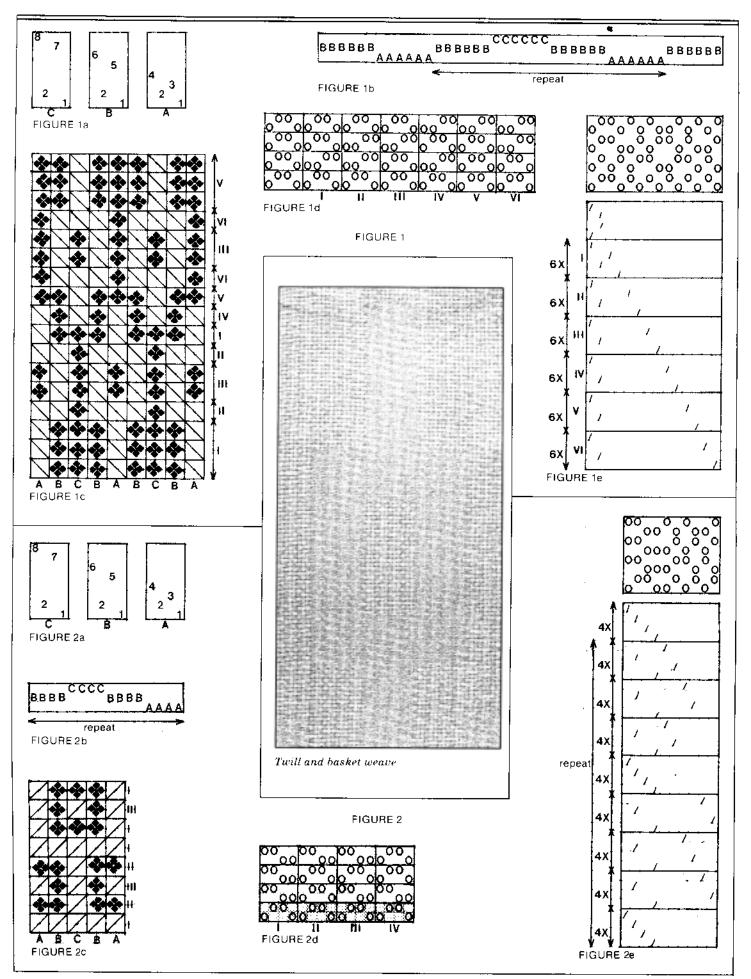
WIDTH IN THE REED: 401/2" (108 cm) 648 warp ends.

LENGTH OF THE WARP: 4 yards.

THREADING, TIE-UP AND TREADLING: Fig. 1.

- a. threading units
- b. profile draft
- c. design key
- d. extended tie-up for the 6 treadling blocks shown in the design key.
- e. shows a practical tie-up and treadling which still requires 14 treadles!

It is important that such designs are worked out on graph paper ahead of time to determine the minimum numbers of treadles needed to weave it.





It's easy! Just submit a written article on a successful project in which you used a weaving technique in a creative way. Enter your project in one of the following categories:

- Rugs
- Household furnishings
- Handspun varn woven projects
- Handwoven clothing

Only one entry per category, please. All entries will be judged by the editors of The Weaver's Journal. Emphasis will be placed on originality of the project, its aesthetic value, and good craftsmanship including finishing. The text should contain the necessary information and instruction needed for the reader to understand the processes involved. The winners will receive \$100 for each winning article.

The Weaver's Journal must receive the right for first publication of the winning articles. All accepted articles will be published before July 1, 1984, All materials will be acknowledged upon receipt and will be returned later to the author. If the photos sent are not of professional quality, the objects must be available to be mailed to The Weaver's Journal where they will be photographed. All mailing expenses for photographic purposes will be paid by The Weaver's Journal.

Contest deadline: April 15, 1983

Mail manuscripts to: The Weaver's Journal, P.O. Box 2049, Boulder, CO 80306

#### Contest Rules

- Lext must be typewritten, triple spaced.
- 2 Drafts and line drawings must be on separate sheets of paper and numbered
- 3. Photos (B/W and/or slides) must be accompanied by a rist of captions
- The upper left-hand corner of the Frst page of the rianuscup's should contain contestant's name, address, and category entered.
   Indude a small sample of yarns used and mention the riame of the supprier, if possible.

### Cyrefco — The Traditional Loom with a Difference

Features for today's weaver include: warp advance lever (warp advance from sitting position at the bench), constant tension brake, roller back beam, angled shuttle race, and counter balance with rollers for even/accurate shed.

The beautiful handcrafted 4/8 harness Cyrefco loom can be purchased finished. unfinished or in kit form. For more information send \$1.50 to Cyrefco, P.O. Box 1640, Palo Alto, ), Palo Ano. CA 94302.

#### DOUBLETWO-TIETWILL SWEATER BLOUSE

After learning a new weave it is always a challenge to create something useful and beautiful which will incorporate these unusual weave structures. The garment shown is woven in twill which is one of the favorite patterns of the fashion industry for this season. Twill usually has a good hand and drapes well. It can be bold or it can be subtle, almost obliterated by the texture of the yarn, as in the garment shown here. The woven fake fur is woven on a 4-shaft regular two-tie unit weave better known as Summer and Winter threading.

#### FABRIC FOR THE BLOUSE

WARP: 3/4 lb. (340 g) single tweedy wool in natural grey.

WEFT: 1/2 lb. (227 g) single tweedy wool in blue, (both yarns are from Silk City Fibers: SPI quenouille lievre (grey) and zanza (blue) ).

SETT: 12 epi (50/40 cm)

WIDTH IN THE REED: 24" (56) cm), 289 warp threads.

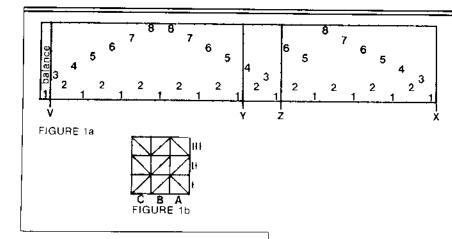
LENGTH OF THE WARP: 3 yards (2.74 m)

THREADING, TIE-UP AND TREADLING: See Fig. 1.

- a. threading
- b. design key
- c. extended tie-up
- d. practical tie-up
- e, drawdown

Thread [X-Z, X-Y, Z-V (twice), repeat 3 times; X-Z, X-Y, one warp end on shaft 1.

There are 289 warp ends plus one warp end at each selvedge, which is beamed, dented and tied on but not threaded. These two warp ends assume the function of floating selvedges. Note that because of the texture of the varn the treadling blocks are woven normally without making the adjustment to avoid double weft areas.



#### WEAVING

The two shuttles carrying the red weft #1 and the red weft #2 start from the same side. The warp tends to draw in a lot during the weaving (12%). This loss is even greater if no temple is used. In addition to the take-up there is quite a bit of shrinkage (10%) if the cloth is machine washed and dried.

SIZE OF CLOTH: When taken off the loom, 22" wide X 82" long (56 X 208 cm); After handwashing in cool water: 20" wide X 76" long (51 X 193 cm)

PATTERN: Vogue 8307 suggested.

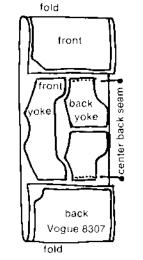
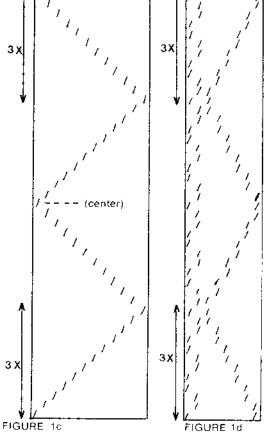
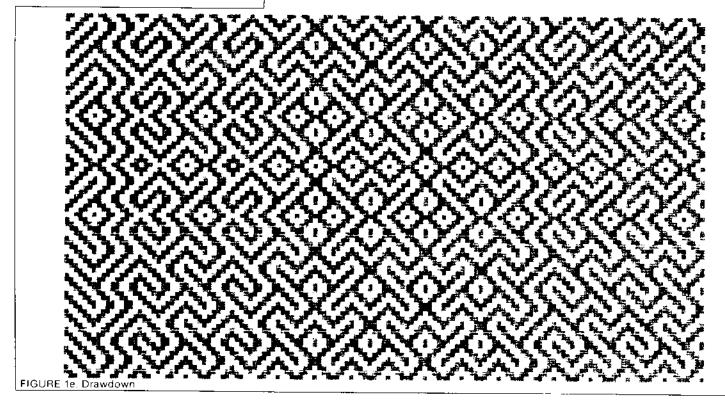
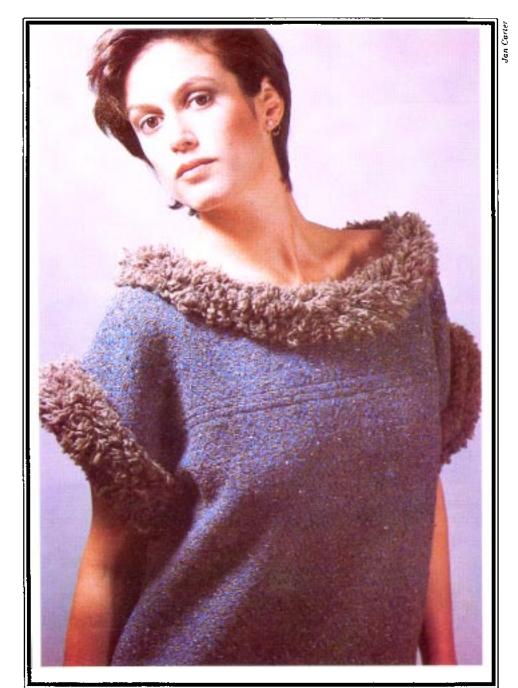


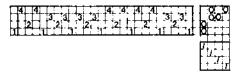
FIGURE 2. Pattern layout for blouse







#### THREADING AND TIE-UP:



WEAVING INSTRUCTIONS: See Fig. 3.

Wind two shuttles (1 and 2) with grey wool used 4-fold and one shuttle (3) with blue.

- a. lift shaft 3, weave as shown with shuttle 1, pull the long floats up to form loops.
- b. lift shaft 4, weave as shown with shuttle 2, pull the long floats up. Weave two tabby picks (s.1+2, s.3+4) with shuttle 3.
- \*c. lift shaft 3, weave as shown with shuttle 1.
- d. lift shaft 4, weave as shown with shuttle 2. Weave two tabby picks with shuttle 3.
- e. lift shaft 3, weave as shown with shuttle 1, leave a loop on the left-hand side.
- f. lift shaft 4, weave right to left with shuttle 2 and leave a loop on the right-hand side.

Weave two tabby picks. Repeat from \*.

Remove the band from the loom, cut all the loops and wash the strip to make it look furry.

Note that thrums and short ends may be used for the pattern weft. Always start and end a new weft piece where there would be a loop as the pile weft is going to be cut there anyway.

#### **FUR TRIM**

WARP: 1/2 lb. (227 g) single tweedy wool, color blue.

WEFT: tabby: same as warp.

pattern (pile): 1/2 lb. single tweedy wool, color grey. For the pattern weft the yarn is used 4-fold.

LENGTH OF THE WARP: 3 yards (2.74 m).

WIDTH IN THE REED: 2" (51 mm).

TOTAL NUMBER OF WARP ENDS: 25.

# 5 BLOCK DOUBLE WEAVE USING THE GLIMÅKRA LONG EYED HEDDLE ACCESSORY



### by Diane Tramba

1. Glimåkra Standard Model loom equipped with Long Eyed Heddle Accessory, Pattern shafts drawn. Weaving in progress,



2. Close up of loom showing distance between ground and pattern harness, Pattern shafts drawn. Ground shafts also in motion.

The Glimåkra Long Eyed Heddle Accessory was used to weave the 5 block double weave blanket pictured. The Long Eyed Heddle Accessory is an attachment for the Glimåkra Standard Model loom. The unit is substituted for the original harness unit, fits within the original framework of the loom, and changes a conventional loom into a 10-shaft draw loom.

The 10 rear shafts are called the pattern harness. Each shaft is individually controlled by a cord

which is attached to the shaft, passes through a comber board at the top of the loom, and ends at a frame in front of the weaver where the shaft can be drawn up and held in place. Any number of shafts can be drawn at any one time depending on the design being created. The pattern harness controls the design being woven.

The front shafts are called the ground harness. These shafts are controlled by the treadles and operate in a counterbalance action.

The ground harness controls the structural weaving. In the case of this double weave, 4 ground shafts are used to weave two layers, each with a tabby structure.

The use of a two-harness loom (ground harness and pattern harness) and long eyed heddles enables the weaver to produce designs which would take many more shafts if woven on a conventional loom. A total of 14 shafts are used to weave 5 block double weave using this attachment. It would take 20 shafts and at least 20 treadles to weave the same design on a conventional loom. The Long Eved Heddle Accessory can also be used to weave techniques such as damask with 10 design blocks, and opphamta with 10 design blocks.

The warp ends are threaded through heddles on both harness units. The pattern shafts have long heddles with eyes slightly smaller than a normal heddle. A heavy metal rod weights the pattern shafts. The ground shafts have heddles with long eyes. The long eyes make it possible to open a pattern shed within the heddle eye. When the ground shafts are put in motion, certain warp ends are pulled down from the upper part of the pattern shed, and certain warp ends are pulled up from the bottom

part of the pattern shed. The warp ends that are affected depend upon the tie-up and the structure being woven.

The beauty of the Long Eyed Heddle Accessory is that it expands the creative potential of the original loom. The loom can be changed from a conventional loom to a 10 shaft draw loom very easily. It could take 2 hours to make the change for the first time, but that time can be cut to 20 minutes with practice.

The double weave pictured is a traditional design, but the following description outlines the procedures used in developing the drafts for any 5 block design to be woven using the Glimakra Long Eyed Heddle Accessory.

#### DESIGNING

Any 5 block design can be used. It should be remembered that even though 2 layers of fabric are being woven, the designing is done for one surface only. This surface will show portions of both layers. The top layer design is represented by the black areas of the design, and the bottom layer design is represented by the white areas.

No matter how many colors you intend to use in the finished piece, it will be easiest if your initial design

is rendered in black and white. Color changes in the warp and/or weft can create exciting effects, but the use of color and its effect on the design should be planned in subsequent renderings. The initial black and white design is used to develop the drafts.

The design should be done on graph paper. This will make it easier to establish proportions related to an actual number of warp ends (Fig. 1 Top). When the entire design has been rendered on graph paper in black and white, a profile draft should be made.

#### PROFILE DRAFT

A profile draft breaks the design down into the 5 individual design blocks and shows the proportion of each block (Fig. 1 Bottom). The design blocks are lettered A through E. Please note: It is possible to start with a 5 block profile draft and develop a design from the profile draft.

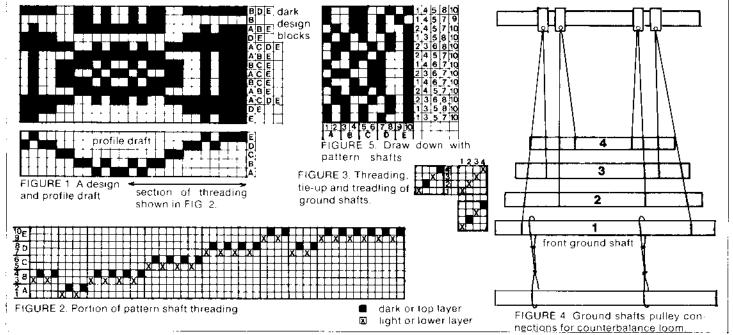
The threading for the pattern shafts is determined from the profile draft.

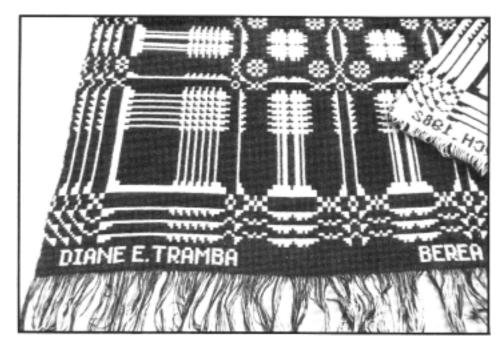
#### THREADING: PATTERN SHAFTS

You must decide how many warp ends each square of the graph paper represents on the profile draft. Each square must equal an even number of warp ends per layer, but the actual number decided upon is based on the number of ends per inch being used, and the size of the design being created. Two warp ends per layer will equal one square on the graph paper in the profile draft illustrated here.

Each design block on the profile draft will be threaded on 2 pattern shafts. One of the shafts (odd numbers) will control the light layer warp ends, and the other (even numbers) layer warp ends. The threading draft for the pattern shafts is developed according to the proportions established on the profile draft.

Fig. 2 shows a portion of the threading for the pattern shafts. The right side of the profile draft (Fig. 1 Bottom) shows that design block E is three squares wide. Since it has been established that each square will equal 2 warp ends per layer or a total of 4 warp ends, the threading shows a total of 12 warp ends (4 ends X 3 squares) threaded on shafts 9 and 10. Design block D is one square wide so the threading shows a total of 4 warp ends threaded on shafts 7 and 8. The rest of the threading is developed in the same manner. Thread one end per heddle.





3. Corner and bottom border of blanket. Name and date were woven using a double weave pick-up technique.

#### THREADING, TIE-UP, TREADLING: GROUND SHAFTS

The threading for the ground shafts never varies when weaving double weave with a tabby structure. The four ground shafts are threaded in a straight draw: light, dark, light, dark, as shown in Fig. 3. Thread one end per heddle.

The tie-up shows sinking shafts only. Since the ground shafts operate in a counterbalance action, the manner in which the shafts are connected via the pulleys is very important (Fig. 4). When treadle 1 is pressed, shaft 4 will sink and shaft 2 will rise because of the connection via the pulleys. When treadle 2 is pressed, shaft 3 will sink and 1 will rise. Shaft 2 will sink and 4 will rise when treadle 3 is pressed, and shaft 1 sinks and 3 rises when treadle 4 is pressed. Two shafts will always remain neutral.

The treadling sequence also does not vary. Use a shuttle for each layer and treadle 1 through 4 throwing dark, light, dark, light as shown.

#### DRAW DIAGRAM

The last step in developing the drafts for this technique is to make a draw diagram. This diagram

shows which pattern shafts are drawn into place to weave any given line of the design. Numbers alone can be used, but I prefer a more visual diagram. Both are shown in Fig. 5.

The pattern shafts work in pairs. One shaft of each pair controls the dark or top layer (even numbers), and the other shaft (odd numbers) controls the light or bottom layer. Only I shaft of each pair is drawn at any time, but you must draw shafts for both the dark and light areas of the design. Therefore, it must be determined which design blocks are dark and which are light along any given horizontal line of the design.

The draw diagram is developed as follows:

- 1. Working with the design and the profile draft (Fig. 1) write the letters of all the black design blocks used for 1 line of the design at the side of the design. (Fig. 1 right side)
- 2. The bottom line of the design shows that only block E is dark on that line. Block E is controlled by pattern shafts 9 and 10. Since block E is dark, the even numbered shaft (10) of that pair is to be drawn. The odd numbered shafts of all other design blocks (1, 3, 5, and 7) must also be drawn to weave that

line of the design properly.

Write down the numbers alone or develop a chart as shown in Fig. 5.

The next line of the design shows that blocks D and E are dark. Therefore, shafts 8 and 10 (even numbers) are drawn for these blocks, and 1, 3, and 5 (odd numbers) are drawn for the remaining blocks along that line.

3. Remember, 5 pattern shafts are drawn for every line of the design. If a block is dark in the design the even number of the pair is drawn. If the block is light the odd number of the pair is drawn. Never draw both shafts of the same pair.

#### WEAVING PROCEDURE

- 1. Draw the proper pattern shafts into place according to the draw diagram.
- 2. Treadle and weave dark and light according to the treadling sequence. If the tabby is balanced, the number of picks represented by one horizontal line of the design will equal the number of warp ends represented by one square on the profile draft.
- 3. Move to the next line of the draw diagram and draw the proper shafts into place.
- 4. Repeat from number 2.





#### MERRILL'S OF MAINE

Hand crafted knitting accessories and gift items for discriminating shops made by Maine craft persons with T.L.C.

Creative, quality oriented customers will appreciate your shop even more for carrying

- · Hand made birch knitting needles
- · Hand carved birch crochet hooks
- · Hand carved birch afghan hooks
- Hand made birch color organizers
- · Hand made knitting needle cases
- · Hand made child starter kits
- Hand made folding wood-n-wool knitting stands
- Hand made loveable lambs
- Hand made sheep on oak rocker or casters
- · Hand made birch oven horses.

Write now to Pat for wholesale prices and samples of items that especially interest you.

Patricia Merrill Dunn Merrill's of Maine, Ltd. Box 403 Kennebunkport, ME 04046

P.S. Telephone inquiries welcomed after 4 p.m. weekdays and anytime on Saturdays (207-967-3207). Orders shipped in 24 hours via UPS. All retail inquiries are referred to our nearest accounts.

# **BOOK REVIEWS**

HARNESS LACE by Ulla Nass 1977, Published by Ulla Nass, 220 Sunnybrook Rd., Flourtown, PA, 19031, 817 X 10" format, 44 pp

I have had this book on my shelf for a few years and the subject of gauzes is of great interest to me. Unfortunately my eye immediately caught Fig. 29 and I hadn't read the warning on the previous page. "Do not be alarmed by the apparent complexity of Fig. 29". I was perplexed and tucked the book away.

This time I started reading the book on page one and this changed my attitude completely. The douping device for the leno weave used by Ulla Nass is one I have only seen described once before (E. A. Posselt, Narrow Woven Fabrics) and consists of a pair of half heddles. both encircling the doup end of the leno warp. pair and moved by means of two shafts. It is really a very logical way to make loomcontrolled leno twists and can be adapted to any kind of loom. The layout of the book with its oversized drawings does not make the technique look simple nor easy to follow but I am sure that confronted with a loom, the weaver can easily put the system to work. One of the greatest contributions of this book is the solution to control the tension problems that occur when the crossing shed is opened. The manipulation of easing bars explained in this book is most ingenious

I disagree with the statement that 3 thread leno, complex leno, fancy gauze. Peruvian leno and Tarascan lace are all synonyms. The basic weave of the section "Complex Harness Lace" is often referred to as "antique Mexican singles" and is used in the denser areas of Tarascan lace.

Harness Lace is the only publication that shows how to weave antique Mexican singles' through shaft control. Although the procedure looks complex on paper, the explanations on how to go about setting up the loom are given in a clear step-by-step way.

Fam really pleased that I took the book off the shelf and discovered all the valuable information it contains

Clotilde Barrett

THE TECHNIQUES OF TABLET WEAVING by Peter Collingwood 1982. Published by Watson-Guptill Publications, 1515 Broadway. New York, NY 10036, 81: "X 11" format, hard-cover, 430 pp. \$35.00 ISBN 0-8230-5255-9.

Ever since I attended Peter Collingwood's seminar on card weaving during Convergence '74 in San Francisco. I have been looking forward to this book. This is a major publication by an author who has thoroughly researched all the facets of the subject of card weaving

The subject is very complex and not only has historical and cultural ramifications but is also a process for producing a wide variety of

weave structures and patterns. Yet, through thoughtful planning, logical organization, effective layout, astonishingly-clear line drawings and photographic illustrations, the many facets of card weaving unfold in an exciting, clear and easy to follow text.

The "ab ovo" explanations of card weaving assures that the book will be very comfortable in the hands of beginners who will start out by learning the very basic principles of cloth structures and patterns that can be produced with cards. The beginner will understand rather than be forced to follow recipes.

For the weaver who is experienced with card weaving the book opens a wealth of new horizons. Textures and patterns found in the most exquisite historical textiles and among vastly different cultures can now be understood and executed. Yet, in most cases, the required equipment is merely a set of cards and some yarn.

It is an overwhelming job to review this book. All I want to say is to get it yourself and enjoy it, even to those who may never actually weave a band themselves. I am sure that each reader will go through the pages of this book and relive with the author the excitement of discovering hitherto-unpublished secrets of many textile pieces. The chapter on double faced card weaving especially appealed to me. First there is a description of the technique to produce the correct weave structure; everything is illustrated with clear drawings. The next sub-chapter is on producing patterns by interchanging colors (there are several methods), then some practical points where the author has foreseen some problems the weaver might have. After giving the basic information, the author studies historical examples and explains the many design theories. Gradually the author delves deeper and deeper into the intricacies and details until all the secrets are revealed and the author has shared all his investigations with the reader.

The book ends with a complete biography and index.

Clotilde Barrett

SCRAP FABRIC CRAFTS by Ed & Stevie Baldwin 1982. Published by H P Books, Box 5367, Tucson, AZ 85703, 81/2" X 11" format, 160 pp \$7.95 plus \$1.00 P/H, ISBN 0 89586 168 2.

Weavers go through a great deal of effort to produce beautiful fabric and therefore hate to throw away any scraps when a project is completed. This book shows how to turn the contents of your "scrap drawer" into novelty gifts and toys. There are about 40 different ideas, mostly requiring tightly woven commercial fabric but an imaginative weaver is sure to find ways of substituting remnants of handwoven fabric. Each project comes with patterns and instructions and the illustrations are quite colorful.

Clotilde Barrett

PLAITED BASKETRY: THE WOVEN FORM by Shereen LaPlantz 4 1982. Published by Press de LaPlantz, 899 Bayside Cutoff, Bayside, CA 95524. 8%" X 11" format, spiral bound, 214 pp. \$17.95, ISBN 0-942002-00-8.

I have had the privilege of attending a workshop led by Shereen LaPlantz. I made lots of baskets, learned a great deal about shapes and surface embellishments and had an unforgettable good time. Reading this book made me relive that experience and made me discover even more beauty and design potentials in plaited baskets. And now I have a great reference book in case I forget one of the techniques or want to explore plaited baskets more thoroughly.

Plaited Basketry is a workbook that shows clearly how it is done and is richly illustrated with examples of inspiring baskets from the past and the present. The chapter on materials has a reference chart to help the reader get acquainted with almost 60 natural materials that can be gathered and used for baskets; also a list of materials available in stores.

The techniques of plaiting are taught step by step by means of excellent drawings and a clear simple text. The "tips and tricks" are all collected in one subchapter which make it easy to refer to as needed.

The excellent organization of the tutorial material leads into a chapter on shaping in which the author again depends a great deal on the visual impact of the graphic material. The clear and clean illustrations and the simple text complement each other throughout the book.

After shaping, the reader learns how to make his/her baskets more complex through the use of color, of more complex weave structures, and of surface embellishments including a variety of surface curls.

The chapter on finishing touches teaches the fine craft of shaping lips, feet, handles and

The book includes a bibliography and sources of supplies.

The book has lots of B/W photos and quite a few colored ones as well.

Although there is an economy of words the book is far from being spare and bare. The space is well used and through the entire text the warmth and enthusiasm of the author glows forth.

Clotilde Barrett

HANDWOVEN, TAILORMADE, A TANDEM GUIDE TO FABRIC DESIGNING, WEAVING, SEWING AND TAILORING by Sharon D. Alderman and Kathryn Wertenberger 1982. Published by Interweave Press, Inc., 306 N. Washington Ave., Loveland, CO 80537. 8%" X 11" format, spiral bound, 147 pp. \$10.50 ISBN 0-934026-08-4.

This publication is two books in one. Each has its own author and the two parts are separated by a series of beautiful color plates of handwoven fabrics and their use in garments.

Part one, written by Sharon Alderman, contains a wealth of information that is based on solid experience and is aimed at training the weaver to do all the right things. The text is pleasant reading, the layout is attractive with a wide margin, in which the main idea of the adjacent paragraph is captured in a few key words. This is very helpful for a book that is used as a reference. The book does not deal to a great extent with weave structures and equipment. There are other good texts for that. Instead, the author tackles all other aspects of making good cloth, starting from the decision to make a garment to the final fabric finishing. By reading this section, the weaver should develop a good attitude toward his/her craft.

Part II, written by Kathryn Wertenberger, is a sewing book. It is aimed at training the seamstress to do all the right things, from keeping the work room at the right temperature to hand stitching a trapunto monogram for a designer's label. Again, the information here is clear, in-depth and to the point. The author assumes that a commercial pattern will be used as a basis for making the garment. She explains how to alter each part to improve the fit, how to lay the pattern out, how to cut and mark the pieces. The book includes several hand and machine stitching techniques. Of great value are the ones used for seams and edge finishes. There is technical information on buttonholes, pockets, cuffs, collars, necklines, sleeves, hems, zippers and finishing touches.

Part II is written for ordinary commercial patterns and for any kind of good fabric. It does not deal with the specific problems of the handweaver who often produces fabric that is too loose, too thick, too ravelly, too commercial looking. I guess, after reading Part I, these disasters shouldn't happen.

Clotilde Barrett

LATVIAN SASHES, BELTS AND BANDS by Alexandra Dzevitis and Lilija Treimanis. English text by Vija Wurstner. Published by Toronto Daugavas Vanadzes, 125 Broadview Ave., Toronto, Ontario, Canada M4M 2E9. Distributed in the U.S. by Vija Wurstner, 343 Telford Ave. Dayton, OH 45419, 8%" X 11" format, hardcover, 414 pp. \$60.00.

This is a beautiful book, obviously done with great love and care. The cloth cover, the large print and the spacious layout all contribute to its luxurious appearance. Pages 3 through 81 contain the Latvian text and the graphical illustrations of the text. Pages 83 through 127 contain the English text. The illustrations are not repeated and one must refer to the Latvian part where the captions are bilingual. Pages 128 through 159 have color plates of a large number of Latvian bands. The captions are bilingual. The remaining pages (the major section of the book) are patterns drafted on graphpaper for traditional Latvian bands.

Latvian designs are decorative and geometric and interlace harmoniously into banded arrangements. They can serve as inspirations for a large number of textile techniques; loom controlled weaving, pick-up, long-eyed heddle techniques, embroidery, knitting, beading, braiding, sprang.



However, this book stresses authenticity of the Latvian tradition and each one of the patterns is done in a very specific technique and color arrangement. The text describes the many subtleties of making authentic Latvian sashes with their rich regional and traditional variations. Each group of bands is carefully described, with cultural and historical references.

There are two major techniques, inkle weaving and cardweaving. The others are braiding, intertinking, and finishing techniques. The author explains all the Latvian variations and teaches how to make the bands starting with a simple example and leading into very complex patterns.

This book is excellent for its cultural material and the precise and scholarly analysis of the subject.

Clotilde Barrett

DECORATING WITH FABRIC:AN IDEA BOOK by Judy Lindahl < 1981. Published by Judy Lindahl. 3211 NE Siskryou, Portland. OR 97212. 128 pp. \$4.95 + P/H. ISBN 0-9603032-3-5.

This book, and the other two in the series, give straightforward information on subjects about which all homemakers and weavers should be informed: energy conservation and the use of fabrics for interior decorating. The author starts out with a very informative essay on the psychological impact of color, light. textures, shapes, and the arrangement of furniture. Next she deals with window coverings of all types, always stressing the importance of energy conservation. With the aids that are on the market today and a sensitive approach to one's own needs everyone can do it; from building shutters to the construction of tight fitting blinds. There are many choices and ideas that can be adapted to specific situations. The author gives detailed instructions on how to make fabric walls. By learning how to make accessories for the bed such as comforters and ruffles, how to make different slipcovers, one gains control over many energy factors in our home environment. There are also instructions on how to make lampshades, air-conditioner covers, and the author also gives new ideas for pillows. A "resources" section will help finding the different components for making insulating fabrics. A bibliography encourages further explorations.

Clotilde Barrett

THE SHADE BOOK by Judy Lindahl \* 1978, revised edition of 1980. Published by Judy Lindahl, 3211 NE Siskiyou, Portland, OR 97212, ISBN 0-9603032-2-7.

This book goes into more detail on how to make different types of shades and their variations. Energy efficiency is all important and is discussed in a preliminary chapter in which thermal linings are explained. There is also an abundance of hints for accurate measurements and for ease of handling the fabric.

Roller shades are handled in depth: various ways of mounting, measuring, installing. There is a discussion of the right fabric for shades and how to stabilize fabrics to make them suitable. This chapter contains a variety of construction methods and shade trim.

The author gives a good list of materials needed and a directory of shade brackets as well as a study of window types.

Other types of shades explained in great detail are Roman shades, accordion shades and poufed shades which include cloud shades, baltoon shades and Austrian shades. A final window covering idea is a coach shade.

The hardware information is most valuable.

Clotilde Barrett

DECORATING WITH FABRIC by Judy Lindahl © 1973, revised edition 1980. Published by Judy Lindahl, 3211 NE Siskiyou, Portland, OR 97212, ISBN 0-9603032-1-9.

Fabric drapes, shapes, can be stiffened, padded, quilted, stuffed, fused, stapled, glued and starched. All these techniques are used and explored when one decorates with fabric. The author explains in great detail how to make fabric walls, cornices or canopies, folding screens, draperies, window coverings, pillows, bathroom accessories and lampshades.

There is a very useful directory of hardware and notions.

These three books are most useful and valuable, and no weaver interested in fabrics for the interior should be without them. I recommend all of them very highly. Each is \$4.95. Add \$1.00 to the order for postage and handling.

Clotilde Barrett

DISCOVERING TEXTILE HISTORY AND DESIGN by K. G. Ponting \* 1981 Shire Publications Ltd., 4½" X 7" format, 72 pp., U.K. £ 1.50 (net). ISBN 0-85263-551-6.

This little book is great as an introduction to the wide subject of textile history. Spinning and weaving developed quickly after about 10,000 BC and some of the textiles produced are the world's greatest art. The book includes a quick survey of the use of the most important natural fibers, of the development of the simplest spindle into today's high production spinners, of the main types of looms and of important dye materials and surface decoration. The author gives an overview of the main types of fabric created over the ages: plain and fancy woven cloth for utilitarian use. also fine clothing, tapestry, embroideries, carpets, knitted fabrics, lace, braids and felt. The book contains also a listing of museums. mostly in the U.K. and a good glossary

Considering the size of the book, the author covers a lot of territory. More is written about the manufacture and structure of textiles than descriptions of the great textile masterpieces.

Clotilde Barrett

PAINTING ON SILK by Pierre Bruandet \* 1978 English edition \* 1982 Published by E. P. Publishing Limited, 81-7 X 11" format, softcover, 64 pp. ISBN 071-580786-2 U.S. distributor: tvy Crafts Imports, 5410 Annapolis Rd., Bladenburg, MD 20710 \$10.95 + \$1.50 P/H.

This is an excellent and practical book on the subject and gives the precise and detailed

information needed to teach oneself the technique. The entire plan of the book is very methodical. The main parts are: working with colors which run, working with colors which don trun, and fixing designs made with paints that run. The technique is suitable for all levels of skill and the author often makes recommendations as to whether or not a technique should be tackled by beginners. children, or more skilled artists. The choices of fabrics, dyes, applicators, processes, and design sources are enormous but the organization of the book is so good that the readers are always kept on track. The book is very well illustrated by means of clear photos, all in beautiful color. It is a real treat to have a book like this on the market when one is about to learn a new technique. Professionals too will pick up quite a few new tricks and ideas

Clotilde Barrett

SOUMAK WORKBOOK by Jean Wilson: 1982, Published by Interweave Press, 306 N. Washington, Ave., Loveland, CO 80537, 51,111 X 711 format, spiral bound, 47 pp. \$5.00 ISBN 0-934026-09-2

Jean Wilson is a popular workshop leader. By publishing the material of her soumak workshop, the weavers who have enjoyed learning the techniques will now have a permanent record. Others may want to use this publication to teach themselves the technique. However, the working drawings are not as easy to follow as in other texts on the same subject, such as Peter Collingwood's. "The Techniques of Rug Weaving", Given the choice, I would rather learn in the workshop where the teacher can really show how it is done.

The text has plenty of B/W photographic illustrations.

Clotilde Barrett

WEAVING A TAPESTRY by Laya Brostoff 1982, Published by Interweave Press, Inc. 306 N. Washington Avenue, Loveland, Colorado 80537, 81; X 11" format, paperback, 162 pp. \$17.50 ISBN 0-934026-10-6

"Never judge a book by its cover" may be an old adage but it is most appliable to this book. The title and cover of the book indicate little of what the book is really about. From the bright green cover with a full color illustration of a person (presumably the author) weaving a tapestry in a lovely studio setting complete with envy-causing equipment and supplies: one opens the book and is greeted with the first two chapters on visual design without a single illustration. The shortage of illustrations at the beginning is somewhat compensated for by a total of eight full color pages and many black and white photographs and diagrams covering approximately thirty-two pages.

The emphasis of the book deals with design rather than the technical aspects of weaving a tapestry. However, the techniques of the author's approach are covered with historical and other references. The fresh approach of stressing design would have been even more successful if the author had chosen the illustrative material more carefully. Some of the design concepts were illustrated by little sections of weavings: tedious effort on the part of the weaver-writer but an interesting approach for the reader. Some of the diagrams would

not be missed if omitted and the black and white diagrams on color theory are incongruent with the ideas being discussed.

Some of the purposes of the book are given as:

- To discourage outworn conventions which not only do not contribute to contemporary tapestry weaving, but delay the progress of the medium
- To organize the necessary basic techniques into logical and useful sequences, thereby clarifying their relationships and interdependence.
- To divest the difficulties of both basic and advanced techniques of any misleading mystery
- To organize design and color theories that relate directly to fiber, and indicate their relationships to other media.

The first part of the book deals with design, followed by developing the cartoon, the planning, finishing and hanging of a tapestry; then weaving techniques with material on non-weaving tapestry techniques, wrappings, and entanglements. The book closes with "Nine Weavers — Nine Choices" an illustrated series of tapestries developed from a single design source, a black and white photograph of a collage of old pieces of metal. The diversity and variety of interpretation by each weaver, either a student or apprentice of the author, acts as an excellent summary to the book.

Helen Davis

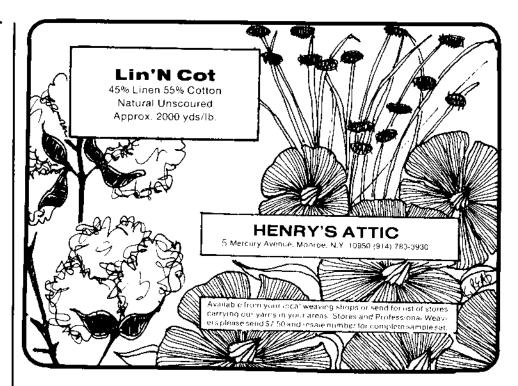
SUMMER & WINTER And Beyond. Clotilde Barrett. 1982 revied. 46 p. illus. Colorado Fibre Center. P.O. Box 2049. Boulder, CO 80306. wraps \$5.00.

I sometimes envy weavers who have the time and energy not only to weave and experiment. but also to write up the results of their explorations for the rest of us. One of those tenvy is Clotilde Barrett, whose interests are wide ranging and who writes about her discoveries, to the benefit of other weavers. The variations possible on summer & winter threadings are here discussed with enthusiasm and skill, and presented in such a way that they will be accessible to anyone with a foom, I don't look for technical faults when I read this type of book; let others find the single misplaced warp and howl about it. This book presents a varied sampling of what can be done with a classic type of weaving, with suggestions for almost unlimited applications ranging from gauze to pile weaves, discussing design. multi-weaver's library, with good illustrations and all the necessary drafts.

(Reprinted from the Textile Booklist)

INDEX TO HOW TO DO IT INFORMATION 1981. 19th annual edition. Published by Norman Lathrop Enterprises P.O. Box 198, Wooster, OH 44691, 8°2" X 11" format, 168 pp. ISBN 0-910868-81-6

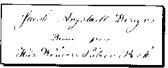
This book is an index of the 1981 issues of 63 craft, hobby and "how-to" magazines. Major areas of emphasis represented by these magazines include: Arts and crafts, astronomy, automobiles, boats, computers, electronics, fiber arts, furniture, Hi-Fi and stereo, house and home, fapidary, photography, sports, television, radio, tools, toys and woodworking





#### JACOB ANGSTADT DESIGNS

Just Angstadt His Reword Latin Beck



#### TWO BOOKS REVEAL 18th CENTURY MASTER WEAVER'S RECORDS

A photographic replica of Jacob Angstudi's pattern book, 307 coverlet and latelestath grafts, 237 to-ups for point swill drafts on 6-8, 12-16, 20-24, 28 and 32 shafts. Companion book contains mainty 500 drawdowns from the profile drafts and prioritivel' tie-ups Dusigns adaptable to unit weaves on 5 to 10 shafts. Preprinted by Butin N. Holroyd with Ulruke L. Beck 85 x 11" Hardbound set totaling 400 pages. 539,95 per sett

Published & Distributed by:

Ruth N. Holroyd 20 Old Farm Circle Pittsford, N.Y. 14534 U.S.A.

Add \$2.00 Phstage & Packaging (\$3.00 overseas) per set = TN Y. Stath Residents add 7% tax = Dealer equines invited

NOW AVAILABLE!



|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | · · · · · · · · · · · · · · · · · · ·                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| STATEMENT OF CO                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | WHITEHIP, MANAGEMENT AND CHUCKATION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| for all of foul and son                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | The state of the s |
| 4 and 4 and                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| CHARGO F SQ.F                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | A STATE OF THE STA |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Palegraph part                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | And references and the second property of the property of                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Harrier von der gerindert i Statistisch Statistisch und die Betreichen                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | The second second second second                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | National and the companion of the state of t |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | and the second s |
| as specified and department                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| APPROXIMATE AND ARREST AND ARREST AND ARREST AND ARREST AR       | rin marana <u></u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <u>and the second responsible to the second responsibilities and responsibilities to the second responsibilities and responsibilities to the second responsibilities and responsibilities are second responsibilities and</u> | and the state of t |
| United the second being a promotion for a program with the second       | Control of the contro |
| Sec Francis and an analysis of the Control of th          | APPART OF THE PROPERTY OF THE PARTY OF THE P |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| For many                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Transfer of the Property of                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| - in 17                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 14 14 15 15 15 15 15 15 15 15 15 15 15 15 15                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 1 a / A A A A A A A A A A A A A A A A A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Page 1 and Section 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 4 F. F. 1999 (21711) 1 F. 1997 (1)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| the West services and a service of                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | general production of the control of |
| Constitution of the contribution in                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | And the second s |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Exact Made or John. In the paper of the second or a se |
| the state of the state of the state of the                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | s the spiller term property                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 1019, 40 . 2000 122 02.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | and the second s |
| THE CHARGE TO LOW                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | •                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | *                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 1 " "                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | : '                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | the state of the s |
| The state of the s       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| And the second s       | -                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

# The Goodfellow Catalog of Wonderful Things No.3

"A genuine labor of love" —The Washington Post

"A Best Bet"

--New York Magazine

"Irresistible wish book" —California Magazine

"The ultimate in direct mail-order catalogs"

—Country Living

"An enormous volume . . . - Ms. Magazine

720 pages, over 3 pounds, 1,433 photos. **The Goodfellow Catalog** is the largest mail-order crafts catalog ever assembled. Over 5,000 items available directly from 680 of America's finest craftspeople. \$19.95 plus \$2.50 shipping from: Goodfellow Catalog Press, Box 4520, Berkeley, CA 94704. (415) 428-0142. Money back guarantee.

# NEW! Cotton Seine Twine

Our SEINE TWINE is being used as warp in tapestries, hand bags, small rugs and a wide variety of other projects.

The quality of our twine is excellent. Put up on 8.8 oz. tubes (250 grams).

No. 20/6 900 yards per tube No. 20/9 600 yards per tube No. 20/12 450 yards per tube

S.A.S.E. for samples, please.

\$6.95 per tube

At your Weaving Supply store



#### SCHOOL PRODUCTS CO.

1201 Broadway, New York, N.Y. 10001

# Serendipity Exclusive!

Our shuttles and spindles are masterfully handcrafted of wood — for us alone! You get superior quality at an unbeatable price! Take a look!

#### Shuttles 2

Set of 5 handcrafted hickory, bladed stick shuttles — 8", 12" 14", 16" and 18" — all for only \$6,50! Two sets only \$12.00.

#### Spindles =

Set of 3 handcrafted wood spindles — a cotton fap spindle, a 2½ oz. drop spindle (12" shaft), and a Turkish spindle — all for only\$8.80! Two sets only\$16.00.

Please add \$1.69 per order to cover shipping and handling. Illinois residents add  $6^{\circ}$  sales tax.

Offer expires 3/31/83. Send check or money order to

#### Serendipity Shop

1523 Ellinwood, Dept. W Des Plaines, Illinois 60016 (312) 297-8094

Send \$1 for our complete fibre arts catalog. Send 50¢ for our lace catalog. The index is arranged in alphabetical order according to the subject(s) covered in each "how-to" article. Example. YARN—Yarn count system charts and formulas for converting from the old indirect count to Tex count. WEAVER'S JOURNAL. Winter 1981-1982, p. 28—How to evaluate a yarn for use in rugs, WEAVER'S JOURNAL, Winter 1981-1982, p. 44

This book is a very useful purchase for any reference library and should be consulted by weavers.

Clotilde Barrett

CONTEMPORARY TEXTILE ART—SCAN-DINAVIA by Charles S. Talley 1982. Published by Carmina International, 700 Queen Anne Rd., Teaneck, NJ 07666, 8" X 9%" format, hardcover, 200 pp. \$35.00. ISBN 91 7528 024-8. (Available by mail order only).

A lot has been written about Scandinavian weaving, its patterns and techniques, but the Scandinavian textile artists who mostly produce tapestries remained relatively linknown. Charles Talley set out to change all that and to make a thorough investigation of contemporary textile art in Norway, Sweden, Denmark, Finland and Iceland in order to publish this beautifully illustrated book. The text is extremely well organized, starting with a short introduction to Scandinavia, its textile history and the people. The textile artists are then organized by country. Each of the 5 Scandinavian countries is introduced with an "overview" which sets the cultural and economical atmosphere in which the artists develop. After the overview there is a 3 to 10 page profile of the 5-7 most prominent textile artists of that country and finally a pictorial gallery illustrating the work of additional artists selected by the author. The essays on each artist are well written and documented with good color photographs. They give relevant biographical information as well as an insight into the growth and the philosophies of the artists. Unfortunately the text and the illustrations are not always well coordinated, such as when an important work is described and used to illustrate a major turning point in the artist's career and there is no illustration. of the piece. With this comprehensive guide to the leading textile artists of Scandinavia, Charles Talley gives his reader a better look and understanding of the rich textile tradition of the Nordic countries.

Clotilde Barrett

#### **FOREIGN PERIODICALS**

(continued from previous issue of The Weaver's Journal

THE WEAVERS JOURNAL is the official organ of the Association of the Guilds of Weavers, Spinners and Dyers (of Great Britain and some Commonwealth countries). It is published quarterly. Overseas subscriptions are £5.20 or \$10.00 per year: P&H are apparently included. The address of the association is: BCM 963 London WCIN 3XX Great Britain. Note that this magazine is not affiliated in any way with the one you are reading; the names differ by an apostrophe

This journal contains the customary departments editorial page, an "opinion" section, diary (calendar of shows, workshops, classes, etc.), guild reports, reviews of shows, workshops and classes, letters to the editor, book

reviews, classified and display advertisements, and, or course, articles on a variety of topics. It is 32 pages in length, with colored covers but only B&W illustrations inside. The format is rather smaller than average (8" x 8.25").

This journal is of interest to those wishing to keep up on current events in the British world of textiles.

Earl Barrett

THE AUSTRALIAN HAND WEAVER AND SPINNER. Quarterly journal of The Hand Weavers and Spinners Guild of New South Wales. Box 67, GPO. Sydney 2001. Australia Available through membership or through subscription Aus \$2.50 per issue.

This B/W quarterly covers quite a few subjects. Gleaning from Vol. 33 #4, which is the issue preceding the first Australian fiber conference, we first note, of course, the excitement and the anticipation about that big event. There are articles by old timers of the guild relating their experiences as weavers, teachers and friends of other weavers. There seems to be a great interest in the history of the textile industry, especially in the United Kingdom. The spinning articles are more in-depth and much less amateurish than those usually found in American publications and for the non-weavers there are ideas for knitting and crocheting handspun. There are some articles about woven patterns.

This issue seems to contain more stories about places and people than articles on the woven cloth such as how to weave, how to design.

It is difficult to judge a periodical from one issue but I found it quite interesting

Clotilde Barrett

VAV MAGASINET (The Weaving Magazine) Published quarterly by Forlags AB Vavnasten, Box 12006, 291–12 Kristianstad, Sweden, Annual subscription rate 110 Swed ish kroner (around \$18.50). Payment by check acceptable.

This appears to be a new publication with only three issues out thus far. Thave examined numbers 2 and 3 and am now an eager subscriber, Issue No. 1, 58 pages, included wellillustrated articles on the superb Stockholm tapestry weaver Louise Treschow; the hemslojden in Kalmar, one of the best of these craft outlets in Sweden various warping techniques, plant dyeing, rag weaving; and reviews of current publications. A large number of objects for the home were photographed in color and complete drafts for weaving them were given, Issue No. 3, with 65 pages, included the same variety of subject matter and placed more emphasis on Denmark

What impressed me most was the superbiguality apparent in every piece of weaving pictured. Each showed mastery in color, design, and execution and the painstaking attention to detail which elevates to heirloom status. Something deserving of respect and preservation.

Lila Nelson



# COMPLEMENTARY-WARP WEAVE

## by Charlotte Coffman

Complementary-warp weave has a long and honorable history, yet its structure is unfamiliar to many weavers and its use remains in the hands of a few. Museum specimens include the Peruvian Ocucaje material (last two epochs of the Early Horizon Period, ca. 1400-400 B.C.) and the Han Dynasty (202 B.C.-220) A.D.) silks. Contemporary examples are found among the hammocks, bags, shawls, and ponchos of South America. The warp-faced cotton belt from Cañar, Ecuador, introduced in The Weaver's Journal, July 1982, is one modern representative and the focus of the following discussion (Photo I).

#### WEAVE STRUCTURE

The term complementary-warp refers to the cooperative role of two warp sets (usually of contrasting colors) as they interlace with a single weft. Both warp sets follow the same order of interlacement but they approach the weft from opposite faces of the fabric. When one warp end passes over a weft pick, the complementary warp end passes under that weft pick. This is a give-and-take relationship—the warp partners are equivalent and reciprocal (Emery, 1966).

The basic complementary-warp structure assumes many forms (Cason and Cahlander, 1976; Rowe, 1977). Variations depend on the length of the warp floats, their alignment, color sequence, and method of interchanging the warps of the two fabric faces.

The simplest form of this weave



1. The ancient complementary warp weave lives on in this contemporary belt from Cañar, Ecuador, Designs are identical on both belt faces but the colors are reversed.

appears in the Canari belt. It has been called opposites warp pattern. compound tabby, and intermesh. Warp floats interlace with the weft 3/1 (over-three-under-one) in alternate alignment. The three-span floats on one face of the fabric conceal the tie-down thread from the opposite face. If the 3/1 arrangement is interrupted by two-span floats, the warp sets switch places. This interchange of warps (and colors) between the two faces creates a double-face fabric of identical designs in reversed colors (Photo 1).

# MATERIALS AND EQUIPMENT

Although the complementary-warp weave may be accomplished on a variety of looms, the waist-tension loom is the traditional choice. The techniques described below in the weaving of a narrow band are a combination of my experience with Asian backstrap looms and my observations of the Cañari weavers. They do not duplicate Ecuadorian methods. Cason and Cahlander (1976) give a faithful account of Andean technique in their book *The Art of Bolivian Highland Weaving*.

The warp-faced nature of the weave and the weaver-held tension of the backstrap loom require a strong, tightly twisted warp yarn. The Cañari used a 2-ply cotton roughly equivalent in size to our #100 sewing thread. Most Andean weavers prefer handspun wool and llama or alpaca hair. Jute, cottolin, hard twist rug yarns, rya yarns, and silk

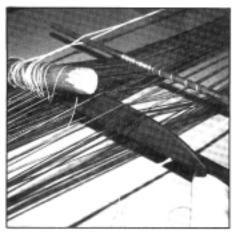
have been used successfully. I like perle cotton although it will fuzz on longer warps. An easier first project would be 8/4 carpet warp or crochet cotton. The illustration uses crochet cotton in three colors: beige, brown, and orange. Strong, contrasting colors emphasize the weave's effect and ease the tedious design-picking.

The weft yarn is usually the same as the warp. Suitable substitutes, however, will not affect the fabric's appearance because the warp conceals the weft. Some of the Cañari belts used two strands of a soft 2-ply wool. My band carries a single strand of brown crochet cotton as the weft.

The heddle strings must be strong, smooth, and thin to minimize and withstand the friction of rubbing against the warp. Possible choices include linen cutty hunk, a fish line; fine seine cotton; crochet cotton; and 10/2 or 8/4 carpet warp. With cotton warps I often use plied rod-winding nylon, size E, available from sporting-goods stores.

#### WARPING

Several authors have written stepby-step instructions for winding a warp onto a warping board and transferring it to a backstrap loom (Redwood, 1974; Taber and Anderson, 1975; Cason and Cahlander, 1976). I learned to warp directly onto the loom and continue to choose that method. It is more timeconsuming but yields exact warp placement and gives the weaver a preview of color combinations and design proportions.

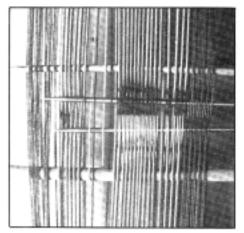


2. Making string heddles

Direct warping requires that the loom pieces be locked in position. Loom parts may be lashed to a wooden or metal frame. They may be inserted into a temporary frame of twisted cord (Photo 2) and suspended from two stationary posts such as sawhorses, tables, chair backs, or porch railings.

Whatever your warping method, trace a figure-eight to form a cross of paired warp threads as in Fig. 1. In the design area, the warp pair consists of one dark and one light thread (abababab). I warped both the pattern and border areas in pairs. One beige plus one dark thread for the design area; two orange threads for the borders. Note that the light partner occupies the left position.

The sett and number of warp ends vary with the thread size and desired weaving width. The patient Canari set their fine yarns at approximately 300 ends per inch (1180/10 cm). I needed only 90 e.p.i. (350/10 cm) of cotton crochet.



3. Light and dark threads form H1 and H4

# ARRANGEMENT OF SHEDDING DEVICES

The Cañari method of complementary-warp weave requires four shedding devices. Proper placement of three heddle rods (H1, H2, H3) and one shed roll (H4) aligns the warp according to Fig. 2.

Heddle rods 2 and 3 are placed first. Locate the warp cross. Check for warping mistakes and make the corrections. Be certain that warp pairs alternate above and below the cross and that warp pairs in patterns areas contain a light thread to the left of a dark thread. Place warp pairs below the cross (shed 2) on a holding stick near the weaver and warp pairs above the cross (shed 3) on a second stick.

Now you are ready to make the string heddles (Photo 2). Replace the holding stick near the weaver with the beater and open shed 2. Pass the end of your heddle string through this opening from right to left, leaving the spool to the right of the loom to be unwound as needed. Make a loop in the end of the string

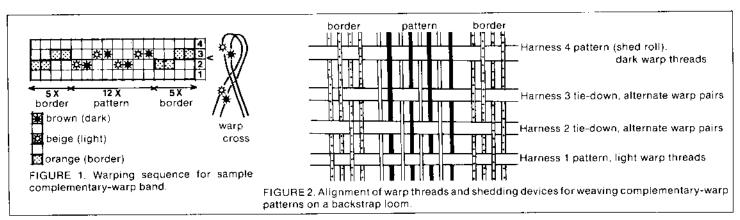


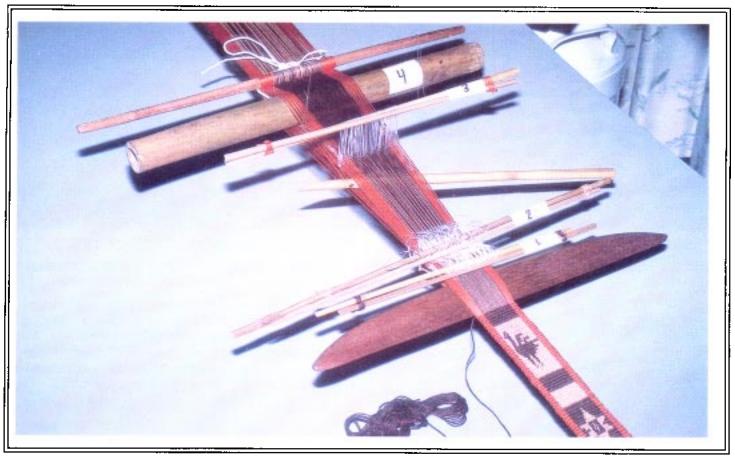
4. H4 forms a solid dark pattern row

and slip it onto a dowel the required size of the heddles. Working from left to right pull the string up between the warp pairs and loop it over the sizing dowel.

Transfer these loops to a heddle rod (H2). Practiced weavers may omit the dowel and place heddles directly on the heddle rod. Heddle arrangement along the rod varies but I alternate the loops from side to side. Cut the string from the cone, tie a loop in the end, and slip it onto the heddle rod. Tie a safety cord or a second rod above the heddle rod, sandwiching the loops between. Heddle 2 is now complete. Use the threads from shed 3 to repeat the heddle-making process for H3.

To make H1 and H4 bring the original cross forward in front of H2. With two holding sticks, divide the paired warps into singles (Photo 3)—the left partners (light) occupy the stick near the weaver (H1); the right partners (dark) occupy the second stick (H4). Make heddles for the light yarns (H1) by the method described above.





6. Lift H2, insert a pick-up stick, and pull the raised warps forward to weave a tie-down row.

Lift the dark threads (H4) back through H2 and H3. These threads are now farthest from the weaver behind H1, H2, H3. You may add heddles but a shed roll or flat stick is easier. Secure shed roll with a safety cord or mark the shed with a yarn loop.

#### WEAVING

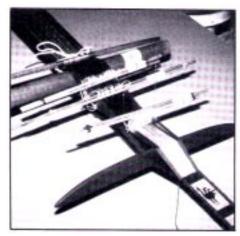
H1 and H4 carry pattern warp threads. H2 and H3 are tie-downs. The weaving sequence is: tie-down, pattern, alternate tie-down, pattern. The H2 and H3 tie-down rows alternate and the correct one must precede the first pattern row. The H1 and H4 rows provide light, dark, or a combination as dictated by the design.

TO WEAVE A LIGHT BLOCK: alternate the tie-down rows (H2 and H3) with H1.

1. Tie-down H2 (Photo 4)—Push H3 and H4 away from weaver; pull H1 toward weaver. Lift H2. Insert pick-up stick and bring raised

threads forward. Insert beater into shed 2 in front of H1. Beat. Pass weft. Beat.

- 2. Pattern H1 (Photo 5)—Push H2, H3, and H4 away from weaver. Lift H1. Insert beater into shed 1. Beat. Pass weft. Beat.
- 3. Tie-down H3 (Photo 6)—Push H4 away from weaver; pull H1 and H2 toward weaver. Lift H3. Insert pick-up stick and bring raised



5. H1 forms a solid light pattern row

threads forward. Insert beater into shed 3 in front of H1. Beat. Pass weft. Beat.

#### 4. Pattern H1-repeat.

TO WEAVE A DARK BLOCK: alternate the tie-down rows (H2 and H3) with H4 shed roll.

#### 1. Tie-down H2

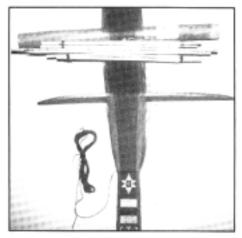
2. Pattern H4 (Photo 7)—Group H1, H2, and H3. Slide shed roll behind H3. The dark warps from shed 4 should rise in front of H1. Insert beater into this opening. If the warp is sticky you may have to advance the shed through each heddle individually. Beat. Pass weft. Beat.

#### 3. Tie-down H3

#### 4. Pattern H4—repeat.

TO WEAVE A LIGHT-DARK PATTERN: alternate the tie-down rows (H2 and H3) with warps picked from a cross made from H1 and H4.

#### 1. Tie-down H2



7. H3 forms alternate tie-down row

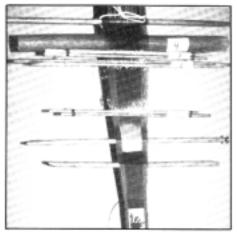
2. Pattern H1-H4 cross (Photos 8, 9)—Bring H4 threads forward and place on a pick-up stick (see Pattern H4 above). Lift H1 and insert a second pick-up stick behind the first. All of the dark warps will be on the first stick near the weaver; all of the light warps will be on the second stick. The light (H1) and dark (H4) yarns cross between the two pick-up sticks. Complementary-warp patterns are picked from this cross; hence, it is often called a picking cross or a pattern cross.

It is important to remember that although the light and dark warps are in different sheds they are still treated as pairs. If the pattern requires a light warp you must pick the light partner above the cross and drop the dark partner below the cross. Because the light varns are located to the left of their dark counterparts, a weaver reading the pattern from right to left will automatically drop the dark partner when picking the light. If a dark warp is needed the light partner will not fall automatically. You must remember to drop it!

Borders are picked from the background-color shed. In making a beige bird on a brown background the border warps are taken from H4. If a brown bird is picked from a beige background the border warps are taken from H1.

The picked pattern and border warps from a new shed. Insert the beater and remove pick-up sticks. Beat. Pass weft. Beat.

3. Tie-down H3



8. H4-H1 dark-light pattern cross

#### 4. Pattern H1-H4 cross—repeat.

Note: Sheds open more easily if the left hand lifts the heddle rod while the right hand, beater, or pick-up stick pushes downward on the warp behind the heddles. Strumming, drawing one's fingers across the warp in front and behind the heddles, also helps.

#### OTHER LOOMS

The complementary-warp weave has been done with inkle looms and by off-loom techniques (Cason and Cahlander, 1976). Atwater (1954) suggested two methods for weaving it on a four-shaft loom. Because most weavers own looms of this type, one of her drafts (Fig. 3) has been adapted to duplicate the backstrap-woven sample.

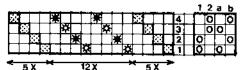
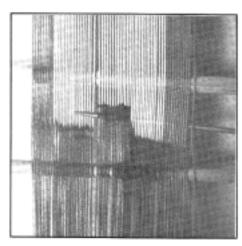


FIGURE 3. Draft, adapted from Atwater (1954), for weaving complementary-warp patterns on a four-harness foom.

#### **PATTERNS**

Many motifs are compatible with the complementary-warp structure. Cason and Cahlander (1976) mention the popularity of letters and numbers and present graphs for the alphabet and numbers. Atwater (1954) sketched animal and geometric figures. The Canari belt has 42 patterns ranging from the date and place of weaving to buses, pots, people, and animals. I copied some of those designs for my sample (Figs. 4-7). Because of the differen-



9. Dark and light threads selected

ces in yarn (and skill!) my designs only approximate the originals.

Even greater differences can result from faulty graphing. The close sett and warp floats cause a design drawn on regular cross-section paper to elongate when woven. The effect can be interesting but it may not be what you want.

To get a better idea of proportion and the intermeshing effect, use the special grid developed by Cason and Cahlander (1976) or purchase engineer's rectangular grid K&E 46-2290 or K&E 46-3010. For simple designs you can "create" a rectangular grid from cross-section (10 X 10 to the inch) graph paper by drawing the pattern over two horizontal rows and only one vertical row (Figs. 4-6).

Each vertical rectangle represents a light and dark complementary warp pair. A blank rectangle indicates that the light warp (H1) of the pair should be picked; an X indicates that the dark warp (H4) should be picked. The next two horizontal rows are left vacant to identify the tie-down rows. Write the symbols H2 and H3 in this space as a reminder to alternate the tie-down heddles and as an aid to keeping one's place. Accordingly, the draft in Fig. 4 reads (from right to left; bottom to top):

Row 1—tie-down H2

Row 2-15 brown/6 beige/15 brown (from H1-H4 cross)

Row 3-tie-down H3

Row 4—4 brown/7 beige/4 brown/6 beige/4 brown/7 beige/and a 4 brown (from H1-H4 cross)

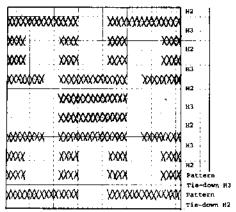


FIGURE 4. Graphed motif based on complementary-warp design from Canar, Ecuador.

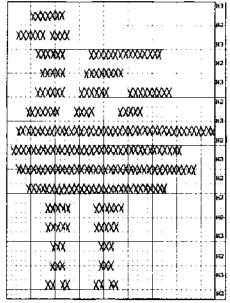


FIGURE 5. Graphed motif based on complementary-warp design from Canar, Ecuador.

|      |      |       |        |       |          |       | ХX    | XX.   |    |
|------|------|-------|--------|-------|----------|-------|-------|-------|----|
| XXXX | XXX  | ::    | : .    |       |          |       | XXXX  | XXX   | 12 |
| XXXX | XXXX | XXXXX | XXXXX  | XXXXX | XXXXX    | XXXXX | XXXXX | KXXX  | •  |
| XXXX | XXXX | XXXXX | XXXXXX | XXXXX | XXXXX    | XXXX  | XXXXX | ***   |    |
| XXXX | XXXX | ***   | XXXXX  | XXXX  | 20000    | XXXX  | XX    | XXXX  |    |
| XX   | XXX  | 00000 | XXXX   | XXXXX | XXXX     | 20000 |       | XXXX  |    |
| XXX  | ΧX   | XXX   |        | :     | : :      | XXXXX | : '   | . :   |    |
| XX . | XX   | XX .  |        |       |          | XXXX  |       |       |    |
| 1. [ | . X  | XX :  |        |       | . : : :  | XXX   | ::::  | :::   |    |
|      | XX   | XXX   |        |       |          | XXXX  |       | . : . |    |
|      |      |       | :      |       | <u> </u> |       |       |       | 12 |

FIGURE 6. Graphed motif based on complementary-warp design from Canar, Equador.

10. Feathering appears on the back side

#### TO CONTROL FEATHERING

A close look at the diagonal pattern lines (Photo 10) shows a blurred or feathering effect on one side of the fabric. This is caused by the intermeshing of warp threads at the two-span floats of interchange. The effect is barely discernable in the Canari belt because the weaver used fine yarn and placed all the feathering on the "wrong" side. If you use large yarns or your design demands clean lines, you may want to control this problem. Cason and Cahlander (1976) suggest altering the tie-down rows as a solution. Heddle rods 2 and 3 alternate as tie-downs. If the tie-down is to be taken from H2, substitute one warp of the motif color from H3 for the warp of the same color on H2 at the feathering point only. This results in clear diagonal lines. If a smooth horizontal line is required. substitute the opposite color warp from H3 for the motif color on H2.

The Canari weavers told me that the complementary-warp weave "needs time". All weavers are not blessed with Andean patience. But we can improve our understanding and usage of this handsome and excitingly versatile weave.

#### REFERENCES

Atwater, Mary M. 1954. Byways in Hand-Weaving. Macmillan Publishing Co., Inc., New York, New York, p. 81-86

Cason, Marjorie and Adele Cahlander, 1976. the Art of Bolivian Highland Weaving, Watson-Guptill Publications, New York, New York.

Emery, Irene. 1966. The Primary Structures of Fabrics: An Illustrated Classification. The Textile Museum. Washington, D.C. p. 150-154.

Redwood, Jane. 1974. Backstrap Weaving of Northern Ecuador. Redwood. Felton, California.

Rowe, Anne P. 1977. Warp-patterned Weaves of the Andes. The Textile Museum. Washington, D.C. p. 67-80,

Taber, Barbara and Marilyn Anderson. 1975. Backstrap Weaving, Watson-Guptill Publications. New York, New York.







# MAKE GOOD PROFITS!

Fascinating full or spare time home business YOU can weave beautful, serviceable rugs on low cost floor model loom that comes

threaded, leady to weave -- including accessories! Just a tew days weaving pays cost of loom. For complete catalog, sample card, and low prices in warps and supplies -- send 25c. If you have leant, advise more and weaving width please.

OR. RUG CO., Dept. 4275, Lima, Ohio 45802

# Pendleton

#### 1982 FABRIC CRAFT SCHOOL

Enjoy a creative vacation in Sedona's spectacular red rock country. Workshops in all phases of handweaving and related subjects. Also woodcarving for beginners.

Instructors: Inga Krook, Kalmar, Sweden; Mary and Fred Pendleton, Sedona, Arizona.

College credit optional. Write for brochure. P.O. Box 233 • Sedona • Arizona 86336 602/282-3671

## TEXTURED WEAVE-AN ALTERNATIVE

#### by Virginia Leigh Tanner

Texture is such an integral part of weaving. Every piece woven on a loom has texture, but do we really pay attention as to how this is achieved? There are several ways to obtain texture in woven fabric. The first, and considered by many authorities the only true textured weave, is the use of appropriate weave structures. The second is the use of different materials, yarns of assorted thickness, plys or appearance, or the use of two or more treads as one. Fabric with textural interest derived from color or material arrangement are usually woven in tabby or twill. In other words, there is an absence of loomcontrolled pattern.

Primarily I weave fabric to be fashioned into garments that are sold at galleries and boutiques. I have found that for my needs, the best approach to texture in fabric is to utilize varied materials rather than loom-controlled patterns. There are several reasons why I have chosen this approach. It is very difficult to compete with manufactured clothes. Fine woven loomed fabric often looks much like commercial fabric. There are too many weaving hours involved to make this duplication profitable or realistic. In fact, one purpose of weaving fabric is to create a beauty unobtainable elsewhere. I have found that to have some success in marketing woven garments, the rough, nubby textures and loose weaves are most desirable because they retain the integrity of a hand woven piece while still having the sophistication to compete with any manufactured garment. This has been my goal: to create fabric with a unique character not to be duplicated.

Texture is a very important design



Jacket

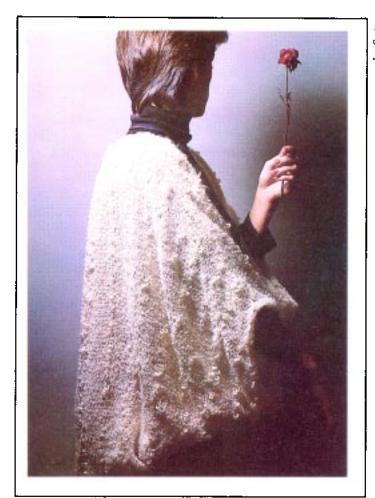
element. It has an immediate impact on our senses. The appearance of woven cloth is the result of the types of yarns used, the subtle color changes and reflections and the structure of the fabric. This, in turn, depends on the sett and the beat. The feel of woven cloth is most important for garments. When achieving a textured weave through use of materials and material placement, there are a number of considerations: basic design, loom preparation, weaving and finally the sewing and finishing.

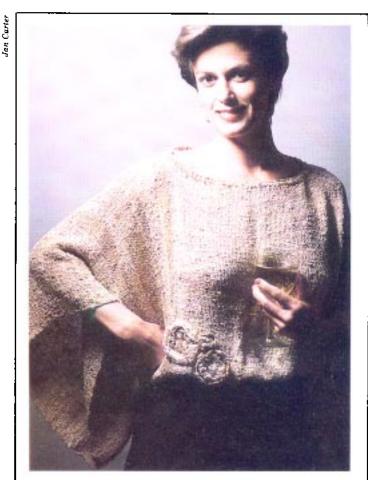
# BASIC DESIGN AND YARN SELECTION

Basic design includes not only what to weave and how to weave it but also fiber selection. This often takes the most "think time." What do I want to weave and how do I want it to look? What feeling am I trying to create? Do I want to create a costume, an elegant evening garment, a rustic wool jacket, a peasant or ethnic garment, some-

thing frivolous, or something practical like a casual shirt or dress? Costumes allow the imagination to wander utilizing dynamic designs and creative embellishment. Evening garments can be created using very simple, classic lines but elegant sumptuous fibers. Rich heavy wools are wonderful for warm jackets. Vibrant and rich color combinations create an ethnic look. The geographical area in which you live might influence your design. Living in a very mild climate, I weave mainly light weight fabric and fashion garments with year around appeal.

ABOUT THE AUTHOR: I live in Los Angeles and am a member of the Designing Weavers Guild. Although my formal education was in art history at the University of California at Santa Barbara, I have always been intrigued with textiles. My appreciation for textiles and weaving increased with world travels and after several inspirational trips I began weaving about eight years ago. It has only been in the last year that my emphasis in weaving has turned to fabric and clothes design. I have exhibited in galleries in Los Angeles, Santa Barbara and Colorado.





Cocoon Bateau

Once I have decided what to weave, I then determine if I am going to make a loom shaped garment or use a pattern. I will mention this again when discussing sewing hints. Having made these decisions, the next step in design is to choose the yarns.

In selecting fibers to enhance textured weaves, any yarn with a nubby or slub appearance will create immediate visual textural interest. These nubby yarns can be played off against smooth, shiny yarns for interesting eye appeal and creative color placement. There are several immediate fiber choices that could be considered. If you are weaving fabric for evening wear, lustrous silks, shiny nubby rayons, metallics, some perles plus embroidery floss are good choices. For sweaters and jackets, wools whether brushed, home spun, plyed or tweeds, mohairs and alpacas all make excellent fabric. Cottons and linens are good for dresses and shirts. These are just brief thoughts

on selection. The most important element is to experiment and enjoy.

I do believe fiber choice is one of the key factors to the success of the finished garment. The design may be exciting, the weaving technically perfect and the sewing excellent but if the yarns are wrong the success of the garment is diminished. Poor selection can result in a stiff, harsh and uncomfortable fabric. If the yarn is scratchy so will be the finished piece.

It is my personal opinion that most any combination of different fibers can be used together and still produce a successful fabric. I have found that by combining fibers of different properties the result can be most rewarding, creating a fabric with a special life of its own. This technique has good results provided close to equal amounts of these different fibers are used. Natural and synthetic fibers can be used together. The biggest risk is uneven shrinkage. This can be diminished by careful placement. If four different fibers are used. place them consecutively in the warp and choose one of them for the weft. The cocoon coat pictured illustrates this point. The warp consists of three fibers, a wool boucle, a nubby rayon and a silk and wool blend. The weft is predominantly the wool and silk blend with a small stripe of the rayon and a wonderful mohair loop that adds surface textural contrast. When washed the rayon tends to shrink more than the other fibers but due to the fairly even distribution of fibers the fabric is successful as a textural weave.

Color selection is truly a personal choice. Do I want to use colors that are soft and subtle, warm and earthy, bright and vibrant, or rich or natural? I have found that many of the variegated and space dyed yarns create wonderful textural weaves as they can give the illusion of depth and contrast. An example is the wheat colored bateau pic-

tured. The warp is a combination of a variegated nubby rayon cotton blend and 10/2 cotton thread in the deep toned area and a tussah silk thread and a shiny rayon in the light area. The weft is entirely of the variegated nubby rayon. Visually the texture has depth, a lustrous aura and subtle color changes. The structure is very soft and the fabric has a wonderful drape.

Another example of the use of variegated yarn is the wool jacket. The warp is a combination of a wool tweed, a brushed variegated wool and a thick novelty wool. The weft is the wool tweed except for the added embellishment of the wool novelty used in the front yoke and sleeves. The tweed and brushed wool not only give a pleasing structure to the fabric but the color changes are very subtle and add textural interest. Through the careful selection of the fiber combinations and uses of color an effective and unique fabric can be made without the use of loom-controlled pattern.

#### LOOM PREPARATION

Having selected the fiber and colors the next step is to prepare the loom for weaving. I feel there are really no special problems with warping the loom. I like loose open weaves as I feel this enhances the drape of the finished garment. I usually work at six to eight ends per inch and occasionally ten. I rarely put on more than twelve yards of warp at a time. I realize this is not necessarily the most efficient method for production weaving but I do not repeat many designs or color combinations. I also warp front to back. As the fibers will pass through the heddles and reed twice, some consideration has to be given regarding the strength of the warp so that it will resist the additional stress. In most cases the yarns I use in the warp are the same, or nearly the same thickness. I do combine singles, plys, and novelties and often use several yarns of different colors for one thread. Nubby yarns can catch 60

on the heddles while advancing and often break. Great care must be used when these yarns are used in the warp. If at all possible, I try to save these yarns for the weft and avoid the problem altogether.

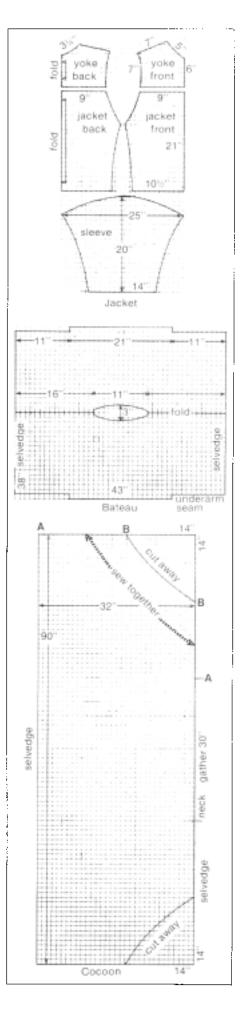
Some caution should be used when weaving with some brushed wools and mohairs. When combined with other yarns the fibers tend to stick together. At 6 epi (25/10 cm) there is usually no problem but at 8 epi (30, 10 cm), which is more desirable for structure density, problems can arise when trying to make a clear shed. This often slows the weaving process but does not make it impossible. Silks are usually not very strong and often break first near the selvedges. If I am combining silk fiber with different fibers, I will sley the first eight threads at each selvedge with the stronger fiber.

#### WEAVING

Once the warping is completed the moment of weaving arrives. The actual weaving of most yardage is rather straightforward. Most of my looms are set up on twill and I usually weave in twill or plain weave. A common problem with plain weave is that the finished fabric will often wrinkle. By using many of the novelty rayons and cottons and working at 6 or 8 epi, this can be avoided. The bateau top is an example of this. I find that when I weave using wools for jackets or sweaters, a twill creates a much richer surface texture, as illustrated in the wool jacket. The cocoon coat, which is set at 8 epi and woven with wools, rayons and silks, was woven with plain weave. However this same garment woven in cotton or certain rayon would be more successful using a twill.

#### FINISHING

The finishing and sewing of a garment often takes more time than the actual weaving. I finish each woven piece of fabric. I machine wash and dry any cotton fabric. Rayon and cotton blends where the rayon predominates, such as the bateau, I hand wash and line dry. I recommend dry cleaning for the

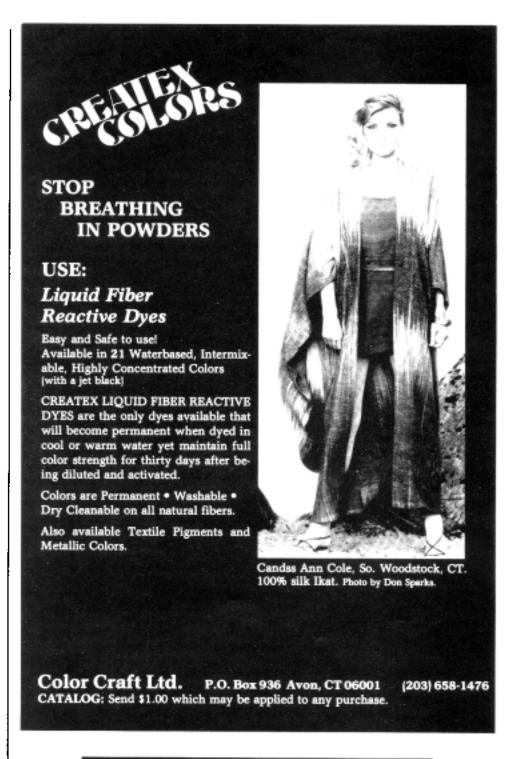


finished garment. I wash wool fabric in mild soap and warm water, hand agitate for several minutes, and then line dry. This does not felt the fabric but gently pulls the fibers together. This also removes any dirt or dust from milling and storing.

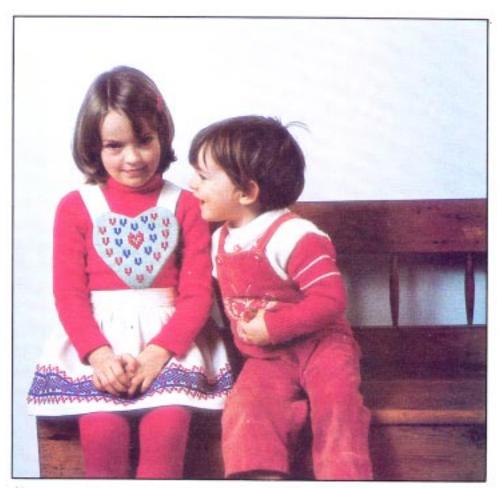
#### SEWING

The sewing is the next process. I try to create patterns with simple lines and that require as few scissor cuts as possible but still retain good style lines (which can often be lost in loom shaped garments). Most garments I cut from patterns. The bateau however, is a simple rectangle with only the neck opening and a style line at the waist cut. The selvedges are at the arm openings and require no finishing. As this is a very loose weave I sewed all cut seams twice and then a third time with a zig zag stitch. The neck is crocheted for finish and the bottom seams are sewn together and then top stitched to add extra reinforcement and prevent any raveling. Crocheted flowers are added as embellishments. Although most of my wool fabrics are not greatly felted. I do not have a problem with raveling. One row of stitching is usually sufficient. Where seams are joined. I hand tack the seams to the body of the jacket. Where crochet is used for a finishing, I sew two rows of stitching thus creating additional stability. Any use of embroidery or crochet for finishing enhances the hand-fashioned appearance while still retaining professional integrity.

I have found textured weaves a fascinating alternative to loom-controlled weaves for creating interesting fabric. The possibilities seem limitless and I have only touched the surface. There are no set rules. There is no right or wrong. By experimenting, I find that some combinations are more successful than others. Exploring this world of textured weaves can be most rewarding, and I encourage weavers to experiment and find the many new solutions awaiting them.







Child's skirt with monks belt patterning

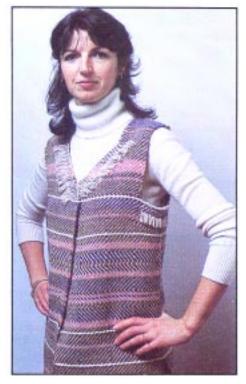
# FROM THE **COLLECTION**

# **OF ANNE**

**POUSSART** 

photos by Yves Tessier

Anne Poussart is a weaver from Quebec (Canada). She loves to design handwoven garments for men, women, youths and children. Classic and well crafted, her fashions show off the beauty and uniqueness of textiles which only a handweaver can produce.



Sleeveless vest



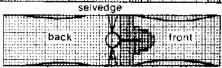
Woolen dress



Short tunic with Sleeves

| side | sleeve   | sleeve |
|------|----------|--------|
| side | salvadas |        |

FIGURE 6. Tunic



#### CHILD'S SKIRT WITH MONKS BELT PATTERNING

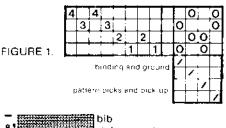
WARP: 2/8 polyester, white.

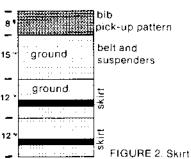
WEFT

**Ground:** 2/8 polyester with every 5th pick tripled.

Pattern: 6-strand floss in red and blue.

**Binding:** 2/8 white polyester and 2/16 green cotton.





SETT: 24 epi (100/10 cm) double sleyed in a 12 dent (50/10 cm) reed.

WIDTH IN THE REED: 25" (60 cm), total of 600 warp ends.

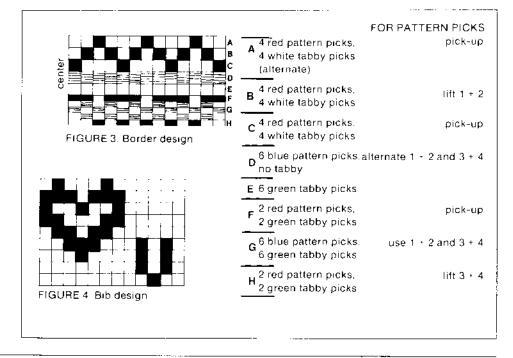
THREADING, TREADLING AND TIE-UP: See Fig. 1.

FINISHED SIZE: See Fig. 2.

BORDER DESIGN: See Fig. 3.

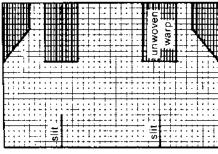
BIB DESIGN: See Fig. 4.

This design is done entirely by pick-up with a green tabby binder between each pattern pick.



#### SLEEVELESS VEST

This all wool vest is woven on a straight twill threading. The warp is a 2-ply white wool, the weft is 2-ply wool in medium brown, rose and purple. All these yarns yield about 800 yards per pound (1611 m/kg) but the warp has a tighter twist and is thus much thinner, There are 4 weft picks of a heavy 4-ply white wool. The vest is loom shaped with woven slits for the hips and unwoven areas for the armholes. Decrease for the neck opening by cutting the warp ends and weaving them partially into the shed together with the regular



Sleeveless vest

weft. Use a pattern as a guide for the shaping of the neck.

#### WOOLEN DRESS

WARP: 2/12 Merino wool.

WEFT: Alternate the following 2 picks:

1. 2/12 Merino wool, beige + 2/16 wool, beige.

2. 2/12 wool, pale blue + 2/25 wool (Riabella).

For the pattern, novelty wool in dark and light blue; 2/12 beige wool, doubled; 2/12 navy wool, doubled.

SETT: 18 epi (70/10 cm)

WIDTH IN THE REED: 35" (88 cm)

LENGTH OF THE WARP: 41/2 yards (4.11 m)

THREADING AND TIE-UP: Maltese Cross (Fig. 5).

Use a commercial pattern and draw the bands on them. Arrange the pattern pieces in a 35" (89 cm)

wide strip in such a way that the pattern bands are in the direction of the weft. Measure to see which areas are to be woven plain and which have to be woven in pattern. Allow for shrinkage and take-up.

#### SHORT TUNIC WITH SLEEVES

WARP: 8/2 wool and polyester blend, natural (Sutton, Canada)

WEFT:

Ground: Same as warp.

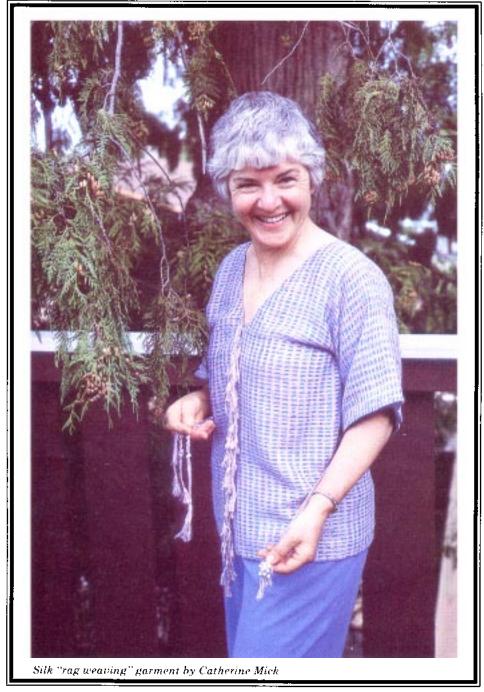
Pattern: 6-strand floss in yellow, green, red, white and blue.

SETT: 18 epi (70/10 cm).

THREADING: Maltese Cross. See Fig. 5.

PATTERN: (Fig. 6): Use a variation of Macedonian shirt (See Dorothy Burnham's Cut My Cote p. 25 or The Weaver's Journal, issue 26, p. 50).

The seams are topstitched by hand with embroidery floss and stemstitching.



# FROM ELEGANCE TO RAG WEAVING by Catherine Mick

The words "rag weaving" usually give us mental pictures of mats. runners, and purses woven tabby or "Catalogne". These days it can also mean handsome wall hangings, upholstery, baskets, or even a silk evening blouse!

I have been rag weaving as a study for several years using manmade

fibers, wools, cottons, sweaters, fur and leather. When my daughter-inlaw found she couldn't make use of several silk dresses which were given to her, she passed them on to me. The fabric of some was handspun and woven in Thailand.

How could I cut to ribbons this wispy, light, colorful fabric? How

would I cut it? Could I make a fabric that would be as light, as drapeable, as elegant, as the original weaver had made? I felt I owed it to her/him to try to give it a new life.

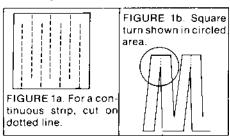
Carefully, I took the dress apart, opening all darts, seams and hems. For washing and ironing I followed Cheryl Kolander's advice: (gently handle in wrist-warm water with Ivory soap well dissolved in it. Rinse well and dry. The large fabric pieces were cut 6" (15 cm) wide and as long as possible. Each piece was cut into a continuous!:" (6.4 mm) strip (see Fig. 1a), taking care to make the cuts run as parallel to the original weave as possible. Slight variations in width are hidden in the weave. For the cutting I used my Fraser 500-1 rag cutter with the #1 cutting head on it,

For the design of the blouse, I saw the lustrous silk warp ends cascading down the front. Simplicity for the rest (see Fig. 2).

With the warp on, I did a few inches of pattern/design playing to find which treadles exposed the right amount of silk rag? Which ones tied-down best? Which weft would be used for tabby? How would I arrange a pattern of silk rag and silk thread shots? In this case I chose the arrangement in Fig. 3 on a "Periwinkle" threading.

In rag weaving to produce fabric for clothing there are two big problem areas. First, holding the threads at the raw edge of the strip in place; second, handling the square turns and the ends of the rag weft (see Fig 1b).

The two tabby shots on either side of the strip solved the first problem. Also, they kept the warp float over the strip confined to the width of the strip.



The answer to the second one was to push the square turn to the back of the web, making sure that it went completely and evenly between two adjacent warps, with the same side of the strip facing up (see Fig. 4). The ends of each strip are handled the same way.

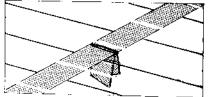


FIGURE 4. Strip in the web, square turn, with folded tail tucked down.

The newly-woven fabric was washed and pressed. Warp length shrank from 91" (2.3 m) to 86" (2.18 m); width measurement shrank from 21" (53 cm) to 184;" (48 cm). The few threads from the silk strip that had "escaped" the web were carefully cut from the face of the fabric; it was given a "hair-cut"!

At the right-side front edge the garment was weft protected and decorated with a double Damascus edge; see P. Collingwood's, Techniques of Rug Weaving, p. 484. The warp ends were finished with an assortment of braids, twists and wrappings of different sizes and

lengths, with the addition of the metallic thread here and there. The garment was lined to conceal the square turns and ends and to give it a better drape and appearance. The hem edge, which was the selvedge, was crocheted with the 2 ply warp silk to tidy up the rag turns.

The belt/necklace was made of twists and braids, several sizes and lengths of each, using the silk and metallic threads. I was "stumped" for a closure until I saw in my "treasure collection" a lone earring with pinkish pearl baubles. Voila! The free ends joined the silk cascade of warp ends.

I hope many weavers will be patient enough and economically inclined enough to give some favorite garment a new life after reading this. As a critique of this fabric, the drape, the luxurious feel and beauty of the silk remain. After each wearing, a few threads need a "hair cut". Soon that will end, I expect. Good luck to those who will experiment and improve upon what I've done. There is much to be tried yet, to produce "rag weaving that is satisfying to the senses of both sight and touch\*."

\*Dorothy Burnham in The Comfortable Arts.



Macedonian shirt

Editor: Of the many beautiful rag woven garments that Catherine Mick designed we are here also showing a Macedonian shirt using a wool skirt for rags and a jacket using man-made knit fabric. Two more of her garments are shown on pp.18-19.



Jacket of man-made knit fibers

#### WEAVING INSTRUCTIONS

WARP: 12/2 silk (180 g)

WEFT:

Tabby: 20/1 silk — light rose, color

A(26 g)

Pattern: 20/1 silk — medium rose,

color B (45 g)

silk rag strips (1 sheath style silk

aress)

metallic thread with above colors (16-18 g)

LENGTH OF WARP: 4 yd. (3.66 m)

SETT: 24 e.p.i. (100/10 cm), sleyed 2 per dent in a 12 dent (50/10 cm) reed

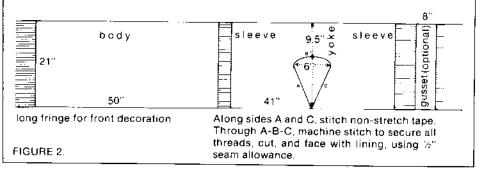
WIDTH IN REED: 21 inches (50.4 cm)

(00.1 0111)

THREADING AND TIE-UP:



FIGURE 3.





155 Oxford St. Dept. WJ Paterson, NJ 07522 201-942-1100

For purists . . . not a trace of synthetic

#### MOHAIR/WOOL YARN

unscoured, available in two sizes



LONE STAR: A lustrous brushed yarn available in two sizes—approx. 950 yds./lb., 2,000 yds./lb. RUFFLES: A wonderful loopy, lace yarn. Available in two sizes—approx. 950 yds./lb., 2,000 yds./lb.

Description: 100% adult mohair from the angora goal raised in Texas. Core and binder domestic pure new woo: from sheep also raised in Texas. Yarn is spun in New England. Put-up on open dive skeins or 1 lb. cones. Price \$19.00 lb

Stores and professional weavers please send \$10.00 for a full year of querterly mailings of other luxurious natural fibers and mill end closeouls. • Volume Discounts • School Pack Assortments •

Minimum Order: \$100.00

VICTORY ( Many) 

# J& D Highland Imports

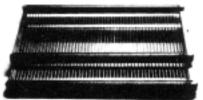
presents

Fine Woolen Weaving Yarn from Scotland Perfect for Tartans and Tweeds

Send \$2.00 for sample cards (refunded with first order).

P.O. Box 5497 • Richmond, California 94805





Made to your specifications, any dents per inch, lengths and widths.

Write for price list:

BRADSHAW MANUFACTURING CO.

P.O. Box 425

West Columbia, S.C. 29171 USA

(803) 794-1151

# DOS TEJEDORAS NOW AVAILABLE IN U.S.: NIGERIAN HAND-CRAFTED TEXTILES, J. Eicher Traditional dyeing & sandweaving, Nigeria \$15 paper, \$20 hard cover NEW: LATVIAN MUTTENS by L. Upatis with color photos and over 100 graphs, \$10,50 paper PATTERNS AND TEXTURES FOR THE RIGID BEDDLE LOOM, B. Davenport \$5.95 paper. FINISHES IN THE ETHNIC TRADITION, Baizerman & Searle \$6.50 paper. LATINAMERICAN BROUADES, Bozerman & Searle. Postage and handling: \$1.00 for first book .50 for each add'l. Send to Dos Tejedoras, 3036 North Snelling Ave St. Paul, Minnesota 55113 (612) 636 0205.

# PRODUCT

#### WEFT-WRITER

Weft-Writer, written by Stewart and Carol Strickler, is the latest addition to the growing body of weaving-simulation programs for the Apple II/Apple II+ computer. It requires 32K or more RAM with Applesoft Basic in ROM or language card. A disk drive (DOS 3.3) is optional; the program is available on either disk or cassette tape. The graphics display can be hard-copied if a Silentype printer is available. Since the program is not copyprotected, it is possible to adapt it to work with other graphics printers. Weft-Writer may be ordered from: Stewart and Carol Strickler. 1690-C Wilson Ct., Boulder, Colorado 80302. U.S.A. for \$30.00 prepaid. Please specify tape. or disk, and your memory size when ordering.

Like most of the programs we have reviewed to date. Weft-Writer accepts as keyboard input a threading (warping) sequence, a tieup, and a treadling sequence, and produces as output a drawdown on the video screen. This program does just that and no more (except to print the screen if one has the right hardware). It has a simple and friendly menu structure, especially for those with limited keyboard skill. Except for typing in file names. when saving to or loading from disk, everything else may be entered using only the Y. N. number, and RETURN keys.

The strong points of the program are the ease of data entry, the provision of some (but limited) editing capability, the fast graphics (plotting routines in machine code), and the exceptionally well-done user's manual. The latter is written for weavers rather than computer specialists. It is in the tutorial format, leading you step-by-step through the whole procedure. It points out the fact, not mentioned in manuals for other programs, that the program (or any drawdown program, for that matter) is equally useful for doing profile drafts and block drawdowns simply by thinking "block" instead of "thread.

The input data cannot be saved or printed out. The drawdowns are in black-and-white only. and a sinking-shed loom is assumed. Two scales are used: 280 warplends and 160 weft picks maximum, or 140 ends and 80 picks, automatically selected by the program on the basis of the number of threads or picks in a repeat and the number of repeats. Color-andweave effects are not possible.

We were able, after a bit of tinkering, to induce the program to print on our IDS-460 printer automatically. While working on this, we noted that the Basic part of the program uses almost every byte of RAM below hi-res graphics Page 1. This is undoubtedly the reason why more features are not implemented

For the new or inexperienced computer user who wants a truly weaver-oriented, userfriendly program to do a lot of drawdowns quickly, and who does not mind keeping handwritten records of the threadings, etc., we recommend this program as an excellent

Earl Barrett

# **REVIEWS**

BEKA'S HANDSPUN WOOL yarns imported from Guatemala and marketed under the name of LA SONRISA were tested in a weftfaced woven fabric. The material was used to make a stunning bag which is described on p. 3.7. The color range is good: naturals. earthy colors and slightly mellowed bright hues. The early yarns needed to be washed before weaving but Beka has acquired better control over the quality of the import and promises a cleaner yarn. The spin is quite uneven and has a definite "primitive" appearance. It is well suited for weft faced weaving such as rugs and tapestries and gives the woven fabric a definite homespun look. Beka Inc., 1648 Grand Ave., St. Paul, MN 55105.

Other yarns supplied for use in projects for this issue:

**BUBBLES** (30% mohair, 58% wool, 12% nylon), 1370 yds./lb. (2762 m/kg), Henry's Attic, 5 Mercury Ave. Monroe, New York, NY 10950, pp.

WILLAMETTE (2/20 worsted), Oregon Worsted Co., P.O. Box 02098, Portland, OR 97202, pp.

MEDICI (silk boucle). Textile Artist Supply, 3006 San Pablo Ave., Berkeley, CA, pp.

**SHETLAND 18 CUT**, 3600 yds./lb. (7255 m/kg), J&O Highland Imports, P.O. Box 5497, Richmond, CA 94805, pp.

AURORA EARTH, 8/2 cotton and RAINBOW ENDS, Cotton Clouds, P.O. Box 604. Safford, AZ 8554 p. 68

#### Freight Free up to \$50

on looms from

● GLIMAKRA ● NORWOOD ● LECLERC ● HERALD ● BEKA

also

PIPYCRAFT, LECLERC & ASHFORD SPINNING WHEELS

Complete book of catalogs available, \$5 (deductible from first purchase of \$50.00 or more)

"INSTITUTIONAL INQUIRIES WELCOME"

### THE GOLDEN HEDDLE

1602 Rochester Rd. P.O. Box 761-WJ Royal Oak, MI 48068 (313) 547-9159





#### **PATTERN**

MASTER 1





# Sophisticated weaving analysis program.

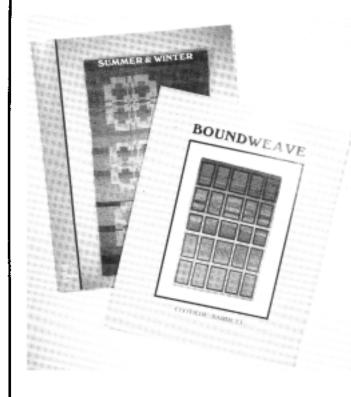
For information and free brochure contact:

The LOOMS - Shake Rag Street

Mineral Point, WI. 53565

(608) 987-2277

#### JUST OFF THE PRESS



#### BOUNDWEAVE by Clotilde Barrett

Boundweave is an easy, basic weave with tremendous design potentials. Never before has this technique been studied in such depth.

Profusely illustrated with B/W photos, color photos, line drawings and work sheets. \$9.95 + P/H

# SUMMER AND WINTER AND BEYOND by Clotilde Barrett

This second edition of a very popular monograph has been completely revised. A chapter on color and one on shaft switching has been added.

New colored cover.

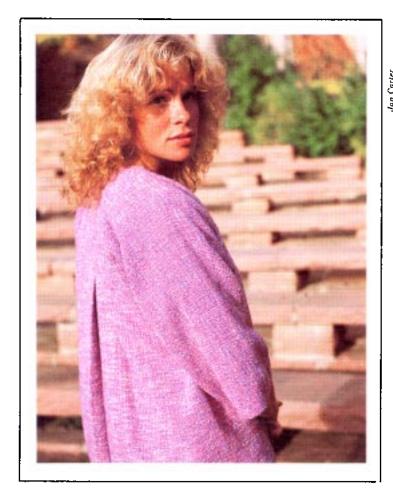
\$5.00 + P/H

Postage and Handling charges are: U.S.A. \$1.50 per book

Outside U.S.A.

\$2.00 per book (surface mail)

ORDER NOW FROM
THE WEAVER'S JOURNAL PUBLICATIONS
P.O. Box 2049
Boulder, CO 80306



### **COTTON JACKET**

#### WITH PLEAT

### by Jamie Leigh White

# CONSTRUCTION INSTRUCTIONS

- 1. Sew back seam ½" (12.7 mm). Press open.
- 2. Sew pleat (right sides together) from to •. Match back seam with pleat seam, and top stitch on lines indicated.
- 3. Fold bodice at "Side line," and sleeves at "Shoulder Line." Sew sleeve/yoke seams together using a French Seam, matching  $\Delta\Delta$  and  $\Delta\Delta\Delta$  together.
- 4. For the facing, I chose a commercial fabric of matching cofor to reduce bulk. More fabric could be woven if a woven facing was desired. Hem outer edge of facing  $\mathbb{W}^n$  (6.4 mm). Line up front of facing with selvedge of jacket front, matching  $\Delta$ —right side of facing to wrong side of jacket. Stitch using  $\mathbb{W}^n$  seam, grade, clip, turn, press.
- 5. Zig Zag hem at approximately 15 stitches per inch twice. Turn up 2" (51 mm) (or adjust) and hem by hand.
- Top stitch around front and neck. Multiple rows give a quilted effect.
- Stitch fold-line of pleat on wrong side, extending the line from the "Top Stitching Line" to hem. This helps the pleat stay crisp.
- 8. Attach large button above or on yoke (depending on button) on left side, centered between front edge and outer row of top stitching. Make loop on right side of jacket. (I like to use unusual antique buttons.)
- 9. Enjoy!

of each color) are used together for 1 working warp end.

WEFT: Thick-thin cotton novelty yarn (Razzle Dazzle Rainbow Ends from Cotton Clouds)

SETT: 12 working ends per inch (50/10 cm). At each selvedge, double shoulder area and at the same me allows the extra fabric to be

WEAVE STRUCTURE: plain weave

Cotton Clouds). Two strands (one

WIDTH IN REED: 30" (72 cm)

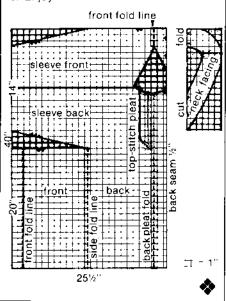
LENGTH OF THE WARP: 3½ yards (3.2 m) (this allows 1 yard for loom take-up and waste).

SIZE OFF THE LOOM: 27½" X 88" (70 X 223 cm)

FINISHING: Machine wash and dry on "hot" to get the maximum amount of shrinkage and to allow the yarns to fluff out and become soft. After construction, wash and dry on "warm".

I chose to weave my jacket in 100% cotton because cotton is soft and gentle. Cotton is comfortable in all climates, and easy to care for. The basic construction of this jacket is the well-known bog shirt. I have woven it in two pieces, instead of one, to allow more width. The wide pleat in the back not only looks nice, but gives a better fit through the shoulder area and at the same time allows the extra fabric to be released in the hip and bust areas. This also creates an overlap in the front that can be turned under and top-stitched for a firmer, smoother front opening. The actual amount of turn-under can be adjusted to fit different bust sizes. The sleeves are tapered at the ends so that a less boxy look is achieved. The weight of the fabric combines with the uncluttered construction to create a jacket that drapes well and is sensuously comfortable to wear.

WARP: 8/2 unmercerized cotton in two colors (Aurora Earth, magenta #30 and light lavender #38 from



# AN ELEGANT PLAID SHAWL

# by Elizabeth Kolling-Summers

A shawl is a fairly versatile project, allowing for use of a variety of yarns and weaves. This particular adaptation involves working with two different types of yarn in the warp — a wool and a part-mohair novelty yarn. Such a warp makes for a more tedious warping process, but it also makes for a pleasure to weave and to wear.

WARP: Single-ply (Shetland) wool, 18 cut (J & D Highland Imports' Scottish Wool — beige (#807), rust (#)834), and dark brown (#830). Note: this wool comes in 1½ lb. (0.68 kg) cones, with 3600 yds./lb. (7258 m/kg).

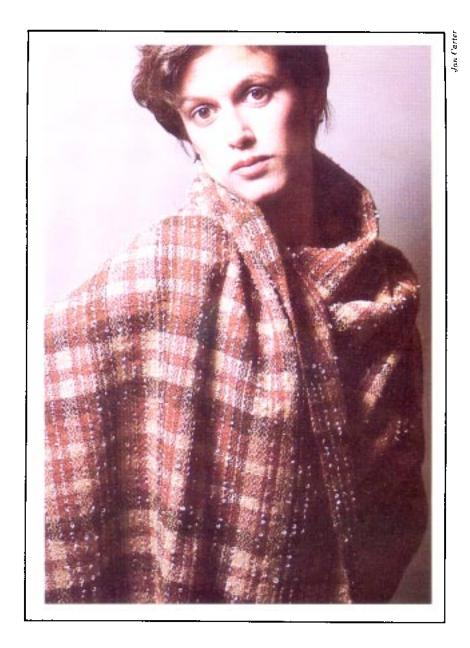
Loop-textured yarn (Henry's Attic' Bubbles — 30% mohair, 58% wool, 12% nylon — natural and unscoured). Note: this yarn comes in ½ lh. (0.23 kg) skeins, with approximately 1370 yds./lb. (2762 m/kg).

WEFT: Single-ply Shetland type) wool, 18 cut (J & D Highland Imports' Scottish Wool — beige, rust, and dark brown).

COLOR ORDER OF THE WARP:



texture: 1 end every %" (1.27 cm); a total of 46 ends (2.5 oz. or 71 g).



SETT: 22 epi (90/10 cm), with the wool sleyed 2 per dent in a 12-dent reed, skipping one dent out of 6, in which the textured yarn is sleyed. See Fig. 1.

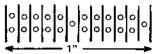
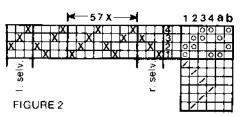


FIGURE 1. Sett spacing

LENGTH OF WARP: 3 yards (8.23 meters)

THREADING. TIE-UP, AND TREADLING: broken twill threading with a point twill treadling in a standard tie-up (see Fig. 2). Using only the wool for weft, treadle the same color order as in the warp.



WIDTH IN REED: 23¼" (57 cm).

DIMENSIONS: When the shawl was taken off the loom, it measured 21%" X 75½" (55.3 cm X 191.8 cm). After handwashing in lukewarm water, it measured 21" X 72" (53.3 cm X 182.9 cm).

FINISHING: Twine each fringe edge, in groups of 2. Overhand knot the fringe in groups of 4 and trim to 4" (10.2 cm), or desired length.

# FOR ANNELIESE AMMANN, SIMPLICITY IS THE KEY TO WOVEN GARMENTS

by Patricia Kaspar



The most important thing for success in making woven garments, according to Anneliese Ammann, is simplicity. "The simpler the weave and the pattern, the better the garment will hang," she says. Anneliese is shown here modeling some of the award-winning garments she has made. She spins a great deal of the wool she uses, and also dyes much of it using natural substances, such as wood and berries. Lately, however, she has been working mostly with silk. "I'm hooked on silk," says Anneliese, "but I don't advise anyone to use silk unless they have had a great deal of experience, because it is so expensive."

Anneliese uses mainly plain weave. "The texture of the garment," she says, "comes from the various combinations of thread." She uses a wide variety of thread—some plain and some curled, some thick and some thin, "I fall in love with a particular thread, and then I go with the feel of it and how it works."

Often she will weave three identical pieces of fabric. She will then use one for the front of the garment, one for the back, and the third she divides for the sleeves. The hooded tunic, which gained her a standing ovation in May 1982 at the Annual Conference of Northern California Handweavers, was made in this way, with an added piece woven especially for the hood.

Anneliese makes it a practice not to cut the fabric any more than necessary. If possible, she cuts only the neck and the pieces for the sleeves. Once in a while she takes "risks" by cutting out larger pieces, as for example, under the arms and down the sides to make a tunic.



Tapestry cape woven in one piece, designed to be hung on a rod as a wall tapestry if desired.

photos by Judy Lingelback

Anneliese tries to use almost every inch of fabric she weaves. Sometimes she will weave a little extra when she has a specific use for it in mind. One of her most successful garments, made from different pieces of natural-colored silk fabric (woven from four types of thread), was done this way by using remnants of garments she had made previously.

Color is very important in all of Anneliese's work. She prefers the rich colors and hues of nature, and indeed gains much of her inspiration from the outdoors that she loves.

Anneliese designs her garments for slimness, "... to flow on your body." She also makes big arms to keep the garments away from the underarms. "Garments designed this way will last for years. Sometimes fabric doesn't hang like you

think it will," she adds, "and then you have to design an entirely new garment." Occasionally she will see a pattern she likes and alter it to fit the feel of the fabric she has woven. Sometimes she first cuts her own designs from paper and then weaves the fabric accordingly.

She tries not to make seams if she doesn't have to, preferring instead to finish the edges by overcast hand stitching. Whenever possible, Anneliese also avoids zippers, using them only when absolutely necessary, as for example, in a straight skirt. Sometimes she lines garments with matching lining where it will enhance the beauty of the final product.

Two of her garments, the tapestry jacket and cape, were woven using the slit technique. Both were woven in one piece from the bottom of the garment upwards. The cape was also designed to be hung on a rod as a wall tapestry, if desired.

Anneliese is a gifted and versatile artist. She was educated in Switzerland at the well-known Kunstgewerbeschule in Zurich where she studied under the famous Elsi Giauque. She went on to work in industry in Holland and Finland where she designed rugs and cotton cloth for dresses. In the past few years, she has woven close to one hundred tapestries and wall dividers from Norwegian wools and linen fibers on her 40" (102 cm) Add-A-Harness loom. She also makes and fires ovenware pottery, and weaves baskets from pine necdles. All of her work shows the excellence which springs both from her creative talent and from her solid technical training and industrial experience.

# **IRONSTONE YARNS**

# **FANCY YARNS** from England

**6 NEW COLORS** 

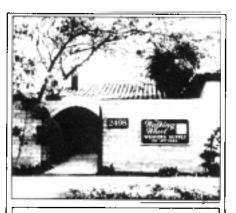
Six Textures

00

Seventeen Shades

Ask at your local yarn shop for our yarns

Ironstone Warehouse P.O. Box 196, Dept. WJ1 Uxbridge, Mass. 01569



#### YOU DESERVE THE BEST FROM THE WALKING WHEEL

Handweaving yarn and supplies Specialized and unique fibers for spinning. Ask about our custom warp chain service. Full-color catalog of yarns. Jooms and supplies. Visit our store when you are in the San Jose area



For catalog, send \$1.00 to: The Walking Wheel, Dept. F. 2498 Stevens Creek Blvd. San Jose, CA 95128 (408) 297-YARN

# COMING **EVENTS**

Deadline for Spring 1983 issue is February 1.

Mesa, Jan. 8, 1983, 5th Annual Vahki Juried Competition Cultural Activities Department Gallery, 155 N. Ceriler St. Mesa: AZ 85201. For information send SASE to, Suc Hakala, 155 N. Center, Mesa, AZ 85201

Mesa, Feb. 20-Mar. 5, 1983, "elarana Weavers and Spinners. Third Annual Juriert Show, Cultural Activities Department Gailery, 155 N. Center, Mesa, AZ

CALIFORNIA.

Mendocino, May 4-15, 1963, Juned Art Show, Conference of Northern, California, transweavers, Inc., held, at Artisans Guild Store, Mendocine, CA, For information send SASE to Tigerfly Jones, P.O. Box 1515, Mendocine, CA 95460.

**Avon.** Feb. 25-26, 1963. Weaving workshop and surface design workshop. Hosted by Weaving Guild of Minnesota and Kaliedoscope of St. Pair and presented by Vince Keinedy of Color Craft Etr., Avon. CT 05001

Guilford, May 28-Jun. 18, 1983. Women's Perspective Exhibit. The Mill Gallery, Guilford Handcrafts Inc., Route 77, Guil-Juried by slides or photos. Application deadline May 1, 1983, Write Women's Perspective Guilford Hand crafts, Box 221-Houte 77, Guilford, CT 06437

Guilford, Jul. 14-16, 1983, 26th Annual Guilford Handcrafts Exposition sponsored by Guilford Handcrafts, Inc. Application deadline Jan. 31, 1983, Write, Guilford Handcrafts EXPO 83 Box 221 Guiltord C1 06437

Boynton Beach, Mar. 4.6, 1983, Boynton's G.A.L.A. (Great American Love Affair: Original affaits and craftsmen invited to submit slides by Feb. 15 for jurying purposes. For more information write. Fleanor Krusell, P.O. Box 232. Boynton

Gainesville, Apr. 22-24, 1983. Florida Tropica, Weavers Guild Annual convention held at the Hilton in Gamesville, FL Workshops Juried fashion show Commercial exhibits. For information SASE to Jo Anni C. Eurell, Pres. Gamesville. Handweavers. Guild. 2021. SW. 42rd. Ave.; Gamesville. FL 2009. 32608

Kaneohe June, 1983, 2nd Pacific Friendship Fiber Arts Conference For information SASE to Elizabeth A. Akana, 46-334 Ikirki St., Kaneohe, HI 96744

ILLINOIS

Chicago, Nov. 6, 1982-Jan. 2, 1983, Magdalena Abakanowicz retrospective to premiere in Chicago. This retrospective surveys her work of the last 20 years, from her monumental three-dimensional woven sculptures of the mid-1960's to early 1970 s the Abakans at The Cultural Center to her cycles of sculptures based on the human figure dating from 1970's to the present and collectively called the Alterations at the Museum of Contemporary Art. A recent group of large drawings will comprement the sculptures. The installations at each location will be conceived of as total environmental works of art by the artist who will trave! from Poland to execute them personally.

Subsequent to its premiere at the Museum of Contemporary Art and The Cultural Center, "Magdalena Abakanowicz" will

Musee d'Art Contemporain Montreal - Feb. 10-Mar. 27, 1983 Porlland Art Museum and Portland Center for the Visual Arts. Oregon - Feb 28-Apr 22, 1984,

Dallas Museum of Fine-Arts, Texas - Jun 21 Aug 19, 1984 Frederick S. Wright Art Gallery, the University of California.

Las Angeles - Sep. 23 Nov. 11, 1984.

Following its North American four, the exhibition will be

presented at distinguished museums in Japan

MASSACHUSETTS

Boston, Artists in Residence Series, Boston University, 620 Commonwealth Ave. Boston, MA 02215. Feb. 9, 1983, 7:30 p.m. - Jayn Thomas, Fiber Artist. Innovator of electronically programmed dobby loom. Slide Lecture. Thoughts on Cloth. Mar. 16. 1983, 7.30 p.m. - Warren Seelig, Fiber Artist, Developer of architectoric form from double cloth, Slide Lecture Form in Fabric: A Ten. Year Retrospective, co-sponsored by Massachusetts College of Art

Amherst, July 13-17, 1983. Before NEWS workshops. Study with Mary Elva Erf Antonia Kormos Palmoa Lyster Doma Mollor Margo Robrer Mary Snyder For information write Mrs. Mary Yilsko. 17 Stanley Road, Norwell, MA 02061.

Amherst, July 17-22, 1988, Weavers, Schillar, University of Massachusetts, Amherst, MA 01002, Keynote speaker, Max Lenderman, Special interest groups, Lectures, Swap sessions Room shows For information write Mrs Mary Yusko. 17 Stanley Hoad Norwell, MA 02061

Midland, Jun. 17, 19, 1983, 13th Birannual Statewide Conference Held at Northwood institute. Mid and Misponsored by Michigan League of Handweavers. For information send SASE to Fam Greenberg 4275 Strattidale Lane West Bloomfield, MI 48033

MONTANA

Billings, May 1-June 3, 1983, Montana Miniature Art Society 5th Annual Competition, Work due April 1. For information write, Mary Blain, 907 64th Street West, Billings, MT 59106.

Cawrenceville, Jul 29-31, 1983, 2nd Mid-At antic Floer Conference, Held at Rider College, Lawrenceville, NJ, Workshops, commercia, exhibits, juried shows, demonstrations For information SASE to Kava Schafer, Weisel Youth Hostel Rd #3 Quakertown, PA 18951

**NEW MEXICO** 

Los Alamos, Mar. 25 Apr. 17, 1983. Juried Clay & Fiber exhibition, Foller Lodge Art Center, 2132 Central Ave., Los Alamos NM 87544 Invitation to exhibit. For information send SASE to Karen Noti Purocker. O rector, fuller Lodge Art Center. P.O. Box 790, Los Alamos, NM 87544

NEW YORK

New York City, Jan. 30, 1983. Pat White Technic and Demonstration. "Supplementary Warps with special application to wearables." Feb. 26, 1983. Shiela Fox. Lecture and demonstration "Solid Plaiting and Other Plaited Structures," Each of these lectures and demonstrations are under the auspices of the New York Guild of Handweavers and will be held at 215 W 23rd St. New York City, NY

NORTH CAROLINA

Chapel Hill, Mar. 21 Apr. 11, 1983, 11th Annual Festival of Weaving sponsored by Triangle Weavers and the Chape-Hill Handweavers. Guild. Held at Horace Williams House in Chapel Hill, Non-juried exhibit. Educational displays. Weav. ing and spinning demonstrations. For information SASE to Beula Collins, Publicity Chairman Triangle Weavers, 1920.5 Lake Shore Dr., Chaper Hid. NC 275\*4.

Berea, Jon. 17-20, 1983. Midwest Weavers Conference Theme "Midwest Fiber Horizons". Held at Baldwin Walrace College, Berea, OH, For information write, Judilli Parish, 7335 Norwalk Rd Medina, OH 44256.

PENNSYLVANIA

Philadelphia. Feb. 27-Mar. 27, 1983. The Work of the The thirtieth annual juried exhibition of work by members of the Philadelphia Guild of Handweavers. On dis play at Woodmere Art Gallery, 9201 Germantown Avel, Philade'phin PA '9118 Direct inquiries to Laura H. McNeil. Exhibit Publicity, 8801 Montgomery Ave., Philadelphia, PA

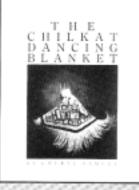
Houston, Mar. 19-27, 1983. Festival's 12th Annual Crafts A. Arts Exposition, a part of The Houston Festival Invitation to participate, Contact Barbara Metyko, Champerson, Crafts & Arts Exposition Committee, The Houston Festival, 1950 W. Gray Suite 2 Houston, TX 77019

Nacogdoches, Mar. 25-26, 1983, Contemporary Handweavers of Texas biennial convention. Fredonia Inn. Nacogdoches TX Else Regensteiner, keynote speaker For information contact. Diane Corbin, Rt. 3, Box 310, Nacogdoches, TX 75961

WASHINGTON, D.C.

Smithsonian Institute, May 1983, National Craft Forum, Crafts Today sponsored by the Smithsonian First national forum on connoisseurship and collecting held at the Smithsonian in conjunction with the Washington Craft Show. For further information, write Smithsonian Associates Travel Program Room 1278, Arts & Industries Bldg., Smithsonian Institution or call (202) 357-2477

Washington Craft Show, May 5-8, 1983, Departmental Auditonum, 1300 Constitution Ave. NW. Washington, D.C. Open to all craftspeople in the United States. For further information and application forms, write to the Women's Committee of the Smithsonian Associates, Room 3101, Arts & Industries Bldg, Smithsonian Institution, Washington, D.C. 20560, or phone (202) 357-4000



The Chilkat Dancing Blanket is the story of an exquisite work of art whose life began in ancient Indian legends and whose secrets are revealed in this remarkable book. Cheryl Samuel presents lavishly-illustrated instructions for recreating the traditional techniques, designs, and colors that make this ceremonial robe one of the rarest of Northwest Coast Indian art forms.

Send \$29.95 plus 1.00 for postage. In Wash. St. add 6.6% sales tax.

#### Pacific Search Press

222-W Dexter Ave. North, Seattle, WA 98109



Join us and begin to share with thousands of your fellow weavers the excitement of this amazing publication. Articles, technical information, projects of beauty which challenge and teach, the human touch everywhere apparent.

THE PRAIRIE WOOL COMPANION, a periodical of such value that it attains the status of reference work. Published Quarterly.

\$15.00 a year, \$28.00 for two years.

# THE PRAIRIE WOOL

126 SOUTH PHILLIPS SIOUX FALLS S DAKOTA 57102 605/338-4333 HARRISVILLE, N. H.

Two centuries of craftsmanship



We are makers of: **Dved Yarns** Natural Yarns Hand Loom Kits Weaving Accessories

> Complete Sample Catalog \$4.00 HARRISVILLE DESIGNS Harrisville, N.H. 03450

| Ţ.,               | THE WEAVING BOOK<br>ulterns and Ideas to y Halene Book |
|-------------------|--------------------------------------------------------|
| \$ 13 E           | 00000000000000000000000000000000000000                 |
| V ph              |                                                        |
|                   |                                                        |
| ğ                 |                                                        |
| $\times$ $\infty$ | (0.000000000000000000000000000000000000                |
| The               | Weaving Book by Helene B                               |



Bress. A truly remarkable book, which explores five of the basic weaves. Its exquisitely clear and readable text and its 3,000 illustrations and tic-ups give you both patterns and the background needed to create your own. It gives you a thorough understanding of the weaving process which few people really achieve. It's as if you have your teacher right with you every time you open the \$50.00 Postpaid

Inkle Weaving by Helene Bress. Here too, the author makes exceedingly clear the techniques of weaving decorative bands on simple looms you can make yourself. Loom plans are included. \$12.95 Postpaid

The Unicorn, Box 645, Rockville, MD 20851 FREE Annotated Craft Book Catalogs. Fantastic Reference Sources. Ask anybody who has one.

Specify your interests: 

Weaving 

Needlework

| □ Quilting □<br>Name: | Knitting/Cre | ochet 🗆 | Lacemaking |
|-----------------------|--------------|---------|------------|
| Address;              |              |         |            |
| City:                 | State        | ZIP     |            |

The Unicorn, Box 645, Rockville, MD 20851

# SILK

# by Mary Jo Lawrence

This dress combines handwoven and handknitted looks in one garment using Medici pure silk boucle from Straw into Gold. The skirt and the back are woven, the front and the sleeves are knitted. Crochet is used for finishing.

WARP: Silk (Japanese 16:1) in lavender.

WEFT AND KNITTING YARN: Silk boucle in 3 related purples: 6 skeins (90 gr or 185 yards each) of lavender #1414, 3 skeins each of blue-purple #1410 and redish violet #1415. This boucle lends itself nicely to both weaving and knitting.

SETT: 6 epi (25/10 cm), 31" wide in the reed. Double the selvedge warp threads through the heddles and the dents.

WEAVE STRUCTURE: Predominantly weft-faced plain weave with the weft running vertically in the dress. Weave two shots of each of the 3 colors and repeat. Make the color changes always at the same selvedge edge. These selvedge loops are later picked up for the crocheting. When weaving, beat gently as the nubby nature of this yarn tends toward easy interlocking. With a gentle beat, the fabric is not too stiff for clothing.

FINISHING: The woven fabric was washed in cold water and a



gentle setting. There was some release of dyc. Therefore it is safer to choose colors in the same color range. Air dry! There was no shrinkage. When the fabric is dried it may seem a little stiff but with some rubbing and manipulation of the fabric, the stiffness disappears.

MEASUREMENTS: The skirt yardage should measure at least 4" (10.2 cm) more than the hips at their largest point. Weave at least 21" (53.2 cm) more for the back top of the dress (size 10).

CONSTRUCTION OF THE GARMENT: Cut out the top back and zig-zag twice to avoid fraying. Do not cut off the selvedge! With the right side of garment facing out, start about 1½" (38 mm)) from left edge of skirt and 1/2" (12.7 mm)

from cut edge of top and crochet selvedge loops from the skirt and the top together. Leave %" seam allowance at other side of top. You will have more than half the skirt fabric left. Slip a #9 knitting needle through the remaining selvedge loops except for the last 6 loops which fall in the seam.

Using the lavender, knit in stockinette knitting 3 selvedge loops into one knit stitch, (Size 10 = 78 sts) This will gently gather in the fullness of the skirt. Knit straight up until side seams match the back top side seams in length. At the beginning of the next two rows, bind off 8 sts. At the beginning of the next two rows, bind off 4 sts. At the beginning of the next two rows, bind off 1 st; you will now have 6

rows completed towards the shaping of the armholes and 52 sts left on the needle. Knit half-way across the next row; put the remaining 26 sts on a holder. This is the start of the neckline shaping. At the start of each row, bind off one stitch until you're down to a point. Bind off. Replace the stitches that were on a holder onto the needles and repeat the above instructions for the other shoulder.

For each size larger than 10, add 10 sts to all above instructions. (Not to sleeves).

SLEEVES: (All sizes) Cast on 48 sts on #6 double point needles; join round, being sure not to twist stitches. Mark joint. KlPl for 14 rows. Next row, knit onto #9 round or double point needles; next row, increase 1 stitch in every stitch for entire round = total 96 stitches. K 6 rows in lavender; K 2 rows in purple, K 2 rows in lavender, K 2 rows in violet; resume knitting in lavender for 38 rows above the last violet row. At the end of the 38th round bind off 8 stitches before the marker; discard marker, bind off 8 stitches at the beginning of the 39th round. This starts shaping for sleeve cap. From now on, you will have to work in stockinette (K a row, purl a row, etc). K (or P) stitches 3 & 4 together at the begin-

ning of the next four rows until there are 76 stitches on the needle. Also, on this 4th row, put a marker between stitches 33-34 and 43-44. Thus, there should be 10 stitches between markers. For the next 3 knit (only!) rows, K together 2 stitches before 1st marker and 2 stitches after 2nd marker. After 3 sets of decreases (should be 70 stitches) add markers 10 stitches before 1st marker and 10 stitches after second marker. Continue to K tog 1st 2 stitches before 1st two markers, and K tog 2 stitches following second two markers until there is one stitch left between markers 1-2 and 3-4. On this row, K 2 tog before marker 1, discard marker, K next two tog, discarding marker between stitches. Knit to 1 stitch before marker 3, knit, remove marker 3, K 2 tog, recover marker 4 K 2 tog, knit balance of row = 30stitches. Continue knitting in stockinette, decreasing in pattern on knit rows only, knitting 2 tog in pattern two times on each K row until there are 22 stitches remaining. At the beginning of the next purl row, bind off 6 stitches, purl balance of row. At beginning of next K row, bind off 6 stitches, K balance of row, also decreasing in pattern. Bind off 5 stitches at beginning of next purl row, purl balance; On last K row, bind off remaining stitches. Weave in ends. Thread a double strand of clastic thread through the back side of the ribbing, top and bottom, to give the cuffs some elasticity.

FINISHING: Sew knitted sections and woven sections together at the top side seams and back sleeve shoulder seams. Where knitted meets knitted, crochet the pieces together. Crochet neck edge in a forward/backward crochet stitch: Do one or more rows "forward" that is, R to L around the opening, then finish with a last row "backward" or L to R.

Put seam binding on the left seam of the skirt, sew closed, leaving 8" for a walking slit at the hem line. A zipper in the left seam underarm is optional, depending on how small the garment is. For a size 10, I chose to add the zipper. Hem tape on the bottom of the skirt and turn a narrow hem, sewing by hand.

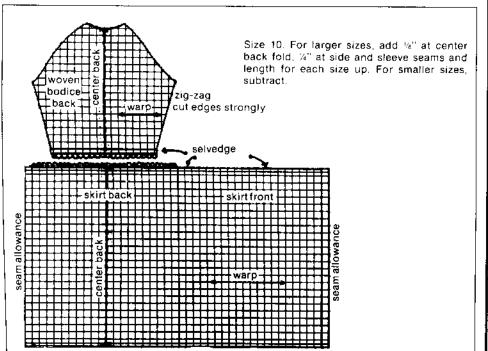
Finish with a loose chain-stitch belt using all 3 colors of yarn.



New from Restoration Arts — the "Painted Wheel," in four color combinations and designs. Beautiful, yet inexpensive. Available unfinished and unassembled - for a real bargain. Maple and birch, brass hardware, double drive band. Send SASE for color brochure, more information, and names of dealers nearest you. Dealer inquiries invited.

### RESTORATION ARTS

Dept. W, 401 High St., Williamston, MJ 48895



# THE WEAVER'S MARKET-CLASSIFIED

#### STUDY OPPORTUNITIES

NAVAJO AND HOPI RESERVATION STUDY TOUR with spinner-weavers week of May 15th or October 2nd, 1983. Brochure: WINDSONG ENTERPRISES, Sue Lacey, 2262 Juniper Ct., Boulder, CO 80302

NORWEGIAN WEAVING TOUR—6th annual. 2'- weeks weaving in Craftschool and sightseeing. June 1983. NORMA SMAYDA, P.O. Box 517, Saunderstown. RI 02874. (401-294-3676).

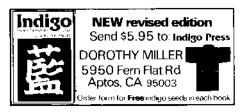
#### HANDWEAVING WORKSHOP M. CHRISTEN

Schuttershofstraat 23 2000 Antwerpen (Belgium) Organizes a 4 week course in basic techniques. Flemish Gobelins. haute lisse, basse lisse, in June 1983. Information at above address.

#### **PUBLICATIONS**

#### PATTERN DEVICES FOR HANDWEAVERS-

125 pages, illustrated: Practical information on mechanisms ranging from pick-up sticks to drawlooms, effective loom modifications, and instructions for damask, double weave, warp pattern, weft pattern, \$18.00 plus \$2.00 shipping. (MD residents add .90 tax.) DORAMAY KEASBEY, 5031 Alta Vista Rd., Bethesda, MD 20814.



#### BOOKS FOR THE HOME CRAFTSMAN EARTH BASKETRY: Known as Complete Basket Hard cover THE JOY OF HANDWEAVING: Basic instruction for beginners, with guidance for teachers 40 step by step lessons . .\$7.95 Hard cover. RUGWEAVING FOR EVERYONE Pile, Tapestry, 4 to 8-harness, Tufted and Flat techniques Paperback BOBBIN LACE STEP BY STEP Directions for Panechack \$4.50 making your own pillow, beginners & \$7.50 practical patterns. OSMA GALLINGER TOD WEAVING STUDIO 319 Mendoza Ave. Coral Gables, FL 33134

TRS 80 PROGRAM for automated drawdowns. Up to 8H / 10 Tr / 116 threads. Screen display shows all features of standard drawdowns. Complete freedom of choice for tieup, treadling sequences, thread-by-thread and/or profile drafts. B/W color sequences for warp and/or weft. For Model 1, Level II, 16K and/or Model III, 16K, On cassette with complete instructions \$35.00 W, SALSBURY ASSOCIATES, INC., 608 Madam Moore's Lane, New Bern, NC 28560.

COLOR-AND-WEAVE PROGRAM. Margaret Windeknecht's original for the Apple II on DOS 3.3 diskette or cassette (please specify). Easy to use / standard drafts / total control—16 harnesses / 16 treadles / 260 warp threads / dark-light only. Enumeration mode displays all possible color-and-weave patterns up to 16 weft-shot repeat. Includes instruction booklet, \$20.00. T. G. WINDE-KNECHT, P.O. Box 232W, Rochester, Mt 48063.

"INNOVATIONS IN FIBRE II" comprehensive book of the national fibre arts show in Denver. April 1982, 96 pages, 116 photographs, 16 full color! Catalog—\$8.95 plus \$2.00 postage/ handling. Full color glossy poster Free with purchase of catalog. SKYLOOM FIBRES, 1905 S. Pearl, Denver. CO 80210.



Weavers guide to fibres and yarns. How to choose and use them; finishing and care. Properties of natural and synthetic fibres; and how they influence quality, appearance, performance of textiles.

\$5.95 at local atores, or \$6.95 postpaid from: STRAW INTO GOLD 3006 San Pablo Ave., Berkeley, CA 94702

# YARNS, FIBERS AND FLEECE

100% COTTON CHRISTMAS SALE!! Super savings! Thick/thin, variegated, pastel, earth-tone assortment. Please state color preference 10 lbs. \$45 ppd. 20 lbs. \$70 ppd. Order today while supply lasts!!! Treat yourself to the softest, most versatile fiber cotton!!!! Catalogue/ samples \$2.00. COTTON CLOUDS, P.O. Box 604-JW, Safford, AZ 85546.

NEW ZEALAND WOOL YARN—Hundreds of colors in weaver weights. \$3/lb. (Minimum 10 lbs.) or \$2.75/lb. over 40 lbs. \$3.00 for yarn color card or send your color for out best match. Add 20¢/lb. shipping/handling. MICHAELIAN AND KOHLBERG, 295 Fifth Avenue, Dept. W., New York, NY 10016.

Rate is 50¢ per word—\$10.00 minimum. Deadline for Spring 1983 issue is February 1.

SPINNERS choose particular fleece from swatches colored and white Corriedale. Send \$1. By the fleece \$1.50 - \$2.50 lb. Formerly Oak Shop now CAMILLE'S FLEECE, P.O. Box 109, Berthoud, CO 80513.

SILKS-TRAM, many new colors. Tussah-7 colors. Doupionni-8 colors. \$28/lb. Samples \$3. CUSTOM HANDWEAVING, Box 477, Redondo Beach, CA 90277-0477.

SHEEPSKIN PIECES. Cleaned, random sizes, Make rugs, vests, seatcovers. Instructions with order, 11b.-\$4, 5 lbs.-\$16; 10 lbs.-\$28 plus shipping. CUSTOM HANDWEAVING, Box 477, Redondo Beach, CA 90277-0477.

MOHAIR—WOOL LOOP, New stock, 17 colors, Also camel hair & alpaca, Samples send LSASE, CUSTOM HANDWEAVING, Box 477, Redondo Beach, CA 90277-0477.

**SILK YARNS:** Wholesalers Clearance Sale. Weaving, Knitting, Crocheting and Needlepoint Yarns, All bulk yarns—tubes, cones, skeins while stock lasts. Send SASE for samples to: J. L. WALSH, INC., 1246–23rd Ave., San Francisco, CA 94122.

SILK YARNS—Wide variety, naturals and dyed colors, warp, weft, knitting, Send \$2.00 for samples, STRAW INTO GOLD, 3006-W San Pablo, Berkeley, CA 94702.

IMPORTED FIBER FLAX SEED. Full cultural instructions. SASE for price and postage rates. MARY A. CHASE, P.O. Building, South Brooksville, ME 04617

MILL-END YARNS—cottons, wools, rayons, blends, Fabric to rug weights; varied textures, colors, put-ups. Samples \$1.00. EARTH GUILD, Dept. WJ, One Tingle Alley, Asheville, NC 28801.

BASKETRY MATERIALS—Complete line of basketry reed, ash and white oak splints, cane and caning supplies, books. Basketry samples \$.75, bulky yarns \$.75. LINDA SNOW—FIBERS, Fiber Headquarters of the Southeast, 3209 Doctors Lake Drive, Orange Park, FL 32073

MILL ENDS, wools, cotton, synthetics and blends. Mill end mailings, four per year—\$3. LINDA SNOW—FIBERS, Fiber Headquarters of the Southeast, 3209 Doctors Lake Drive, Orange Park, FL 32073.

SILKS, WOOLS, COTTONS. Complete line of yarns, textured, bulky, fine. Exotic TOPS, 50% silk/50% wool tops. Weaving and spinning equipment, books and supplies. SAMPLES: Yarns \$2.50, Spinning Fibers \$2.50, deductible first order, Catalog only \$.75. LINDA SNOW—FIBERS, Fiber Headquarters of the Southeast, 3209 Doctors Lake Drive, Orange Park, FL 32073.

#### **MISCELLANEOUS**

MONTANA MINIATURE ART SOCIETY 5th Annual Competition, May 1-June 3, All fine arts including fibers. Work due April 1, Write Mary Blain, 907 64th Street West, Billings, MT 59106.

SILK PAINTING. Tinfix French colors. Open stock, kits, resists, steamers, workshops. Brochure, "The Grapevine" booklet, color chart \$3.00. Informative full color book, translated from French \$10.95 + \$1.50 p&h. IVY CRAFTS IMPORTS, 5410 Annapolis Rd., Bladensburg, MD 20710 301-770-7079.

DRUM CARDERS. You can't beat these drums, but they really can card wool. Ask somebody who has one. Free brochure, From \$170 U.S. ppd. PATRICK GREEN CARDERS, 48793 Chilliwack Lake Rd., R. R. 3, Sardis, B.C., Canada VOX 1YO.

PAULA'S PICKER, BY PATRICK, \$275 U.S. ppd. Paula says she likes this improved version very well, especially the hardened and ground picker points and the "oh, so easy" ball bearing action and of course the positive safety lock feature. Free brochure. PATRICK GREEN CARDERS, 48793 Chilliwack Lake Rd., R.R. 3, Sardis, B.C., Canada VOX 1YO.

FLOOR & TABLE LOOMS designed by Rollo Purrington, made by the NORRISES, 52W Willowbrook Road, Storrs, CT 06268, SASE for brochure

TIE UP WITH TEXSOLV! Accurate, fast, easy. New-type chain loom cord and string heddles (including long-eye pattern heddles). Polyester, no-knot, non-stretch. Free information. Samples and booklet \$3.00. TEXSOLV Products, 10720 SW 30th Avenue, Portland, OR 97219, (503) 246-7000.

FOR SALE, AVL Dobby, 16 H. 48", Fly shuttle beater. Sectional warp beam. Plus extras. November 1981 Model, Excellent condition, \$3,500 or best offer. Ship C.O.D. Call (503) 846-6092

YARN BLOCKER KITS — Beautifully crafted, solidly built, easy to assemble. 15 yard and 2 yard models now available from: TRADI-TIONAL FIBER TOOLS, 885 Glendower, Ashland, OR 97520. Illustrated brochure \$1.00.

TIRED TEASING FLEECE? The Wool Picker from Paula Simmons Handweaving Guide for Selling available for purchase. You can tease one pound unmatted fleece in five minutes. For information send SASE: MECKS WOOL PICKER, P.O. Box 756, Cornelius, OR 97113 (503) 628-2696.

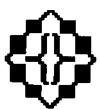


Yarn blockers and Swifts of proven design, beautifully crafted in hardwood. Brochure \$1 from:









Che Weaver's Loft

for your weaving and spinning needs.

Schacht
 Norwood
 Harrisville

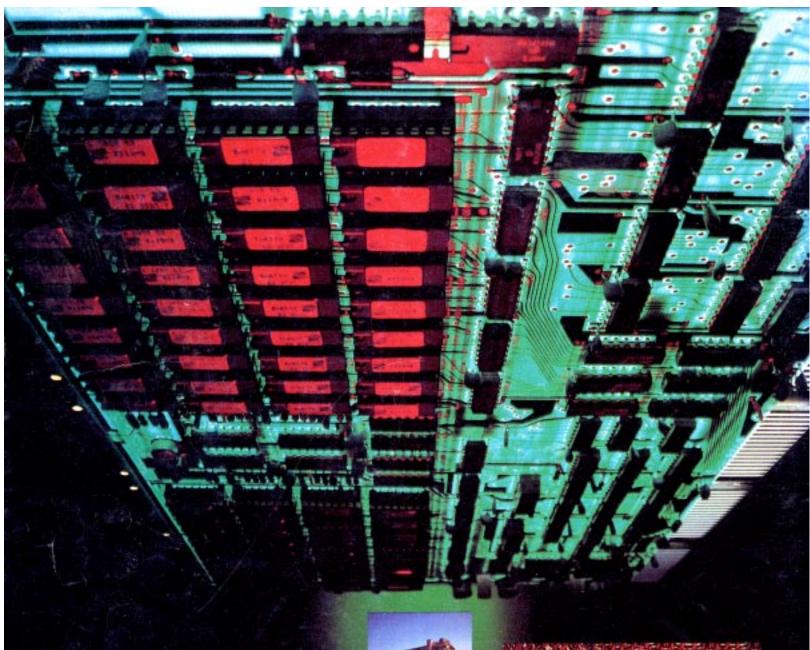
Unique fashion threads for knitting and crochet Catalog \$2.00, refundable with first order.

Open Monday-Saturday, 11-5

(815) 786-2233 215 West Center, Sandwich, IL, 60548

#### **ADVERTISERS INDEX**

| Ahrens & Violette Looms, Inc |      |
|------------------------------|------|
| Arrowment School of Arts an  | d    |
| Crafts                       | 4    |
| Ayottes' Designery           | 33   |
| Beka, Inc.                   | ifc  |
| Bradshaw Manufacturing Co.   | 66   |
| Brown Sheep Co., Inc.        | 10   |
| M. Christen                  | 76   |
| Classified Ads               | 76   |
| Color Craft Ltd.             | 61   |
| Cyrefco                      | 42   |
| Dos Tejedoras                | 66   |
| Kerry Evans                  | 10   |
| Frederick J. Fawcett, Inc.   | ifc  |
| Glimakra Looms 'n Yarns, Inc |      |
| The Golden Heddle            | 67   |
| Goodfellow Catalog Press     | 51   |
|                              |      |
| Grandor Industries, Ltd.     | 4    |
| Harrisville Designs          | 73   |
| Henry's Attic                | 51   |
| Herald Looms                 | ibc  |
| Bette Hochberg               | 76   |
| Ruth N. Holroyd              | 51   |
| Ident-ify Label Corporation  | 57   |
| Indigo Press                 | 76   |
| Ironstone Warehouse          | 72   |
| J & D Highland Imports       | 66   |
| Lucille Landis               | 5    |
| The Linden Tree              | 5    |
| The Looms                    | 67   |
| Macomber Looms               | 34   |
| The Mannings if              | c, 3 |
| Merrill's of Maine           | 48   |
| NEWS                         | 10   |
| Oriental Rug Co.             | 57   |
| Pacific Search Press         | 73   |
| Pendleton Shop               | 57   |
| The Prairie Wool Companion   | 73   |
| Restoration Arts             | 75   |
| School Products Co., Inc. 34 |      |
| Serendipity Shop             | 52   |
| Siever's Looms               | 33   |
| Silk City Fibers             | 66   |
| Spring Creek Farm            | ibc  |
| Osma Tod Weaving Studio      |      |
| Traditional Fiber Tools      | 76   |
|                              | ibc  |
| The Unicorn                  | 73   |
| The Walking Wheel            | 72   |
| Weaver's Journal Publication | 67   |
| The Weaver's Loft            | ibc  |
| Weaver's Way                 | 5    |
| John Wilde & Brother, Inc.   | 49   |
| The Wool Gallery             | 61   |



# HARDWARE



AYL Mir AVL LOOMS

601 Orange Street, Dept. 31. Chico, California 95926 (916) 893-4915





# SOFTWEAF

Now your weaving will truly be limited only by your imagination. Generation II, the compu-dobby system, is a breakthrough in computer hardware that allows you to make even more dramatic breakthroughs in softwear.

Who developed this product? Where can you find out more about it? At AVL...Naturally! Send \$1.00 for a complete catalog.

**NVL...NATURALLY**