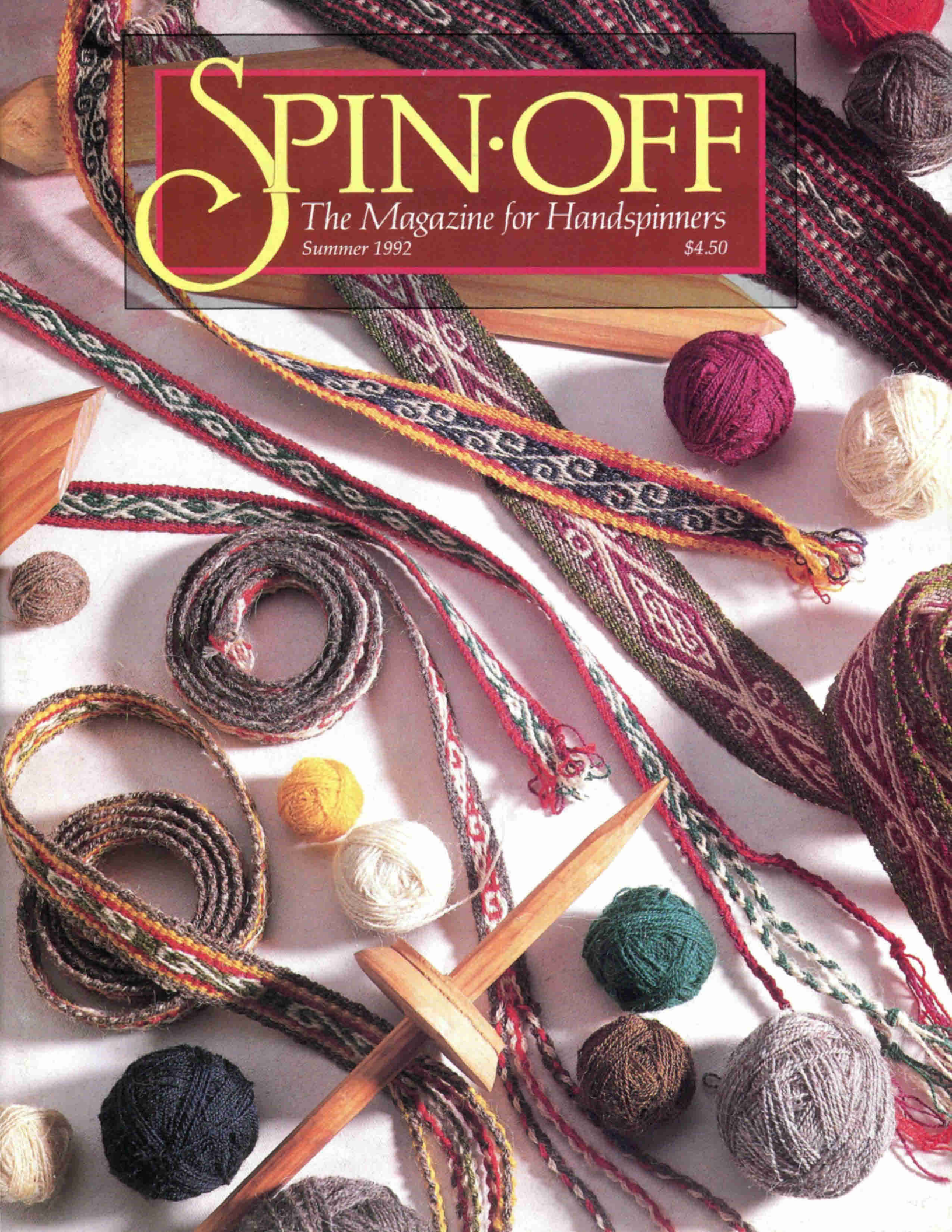
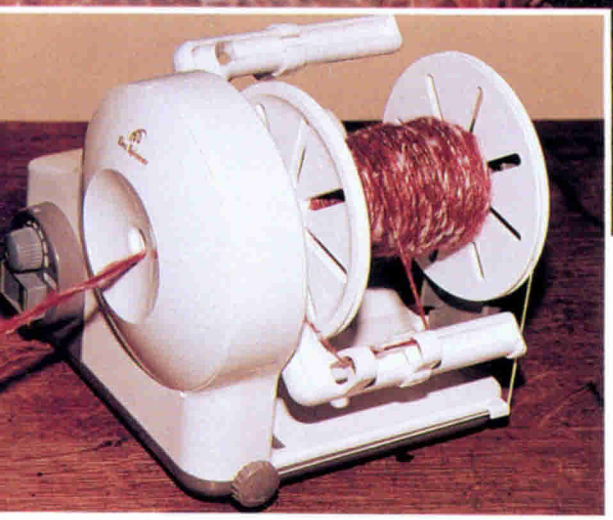


SPIN·OFF

The Magazine for Handspinners

Summer 1992 $4.50

See us at Convergence!



Portable ELEC SPINNER™ goes with you

Compact and light weight with full spinning options!

At home or on the go, the ELEC SPINNER™ gives you the performance you need in a truly portable spinner.

- Small, light weight, it's easy to carry with cases available.
- Compact, uses little storage space. It fits neatly into luggage.
- Performs beautifully – speed is fully adjustable, continuously variable from slow to fast.
- Complete spinning options include S or Z twist for spinning and plying.
- Extra bobbins and Lazy Kate – everything necessary is included.
- Large eight ounce bobbin capacity means fewer interruptions.
- Hands-only operation – no hand-foot coordination is required.
- One year warranty, parts and service.

Whether at meetings and conventions or in a convenient corner at home, you'll get years of enjoyment from an ELEC SPINNER.™

ORDERING INFORMATION

- $229.95 plus $5.00 shipping and handling. *Write or call today!*
- Visa, Master Card, American Express or check accepted.
- Also available from many retailers. Check the shops in your area.
- Wholesale inquiries are invited.

ACCESSORY INFORMATION

The basic accessory set that comes with each ELEC SPINNER™ includes three bobbins, lazy kate, threading hook and owner's manual. Hard and soft carrying cases as well as extra bobbins and a 12 volt adapter for use on the road are available.

Exclusive North American Distributor

WOODLAND WOOLWORKS

Woodland Woolworks
17340 NE Woodland Loop
Yamhill, OR 97148-8420
503-662-3641

SPIN-OFF

The Magazine for Handspinners

Volume XVI
Number 2
Summer 1992

Handspun Swatch Collection . . . 111

Projects

Departments

Cover: *Debbie Watson's high-twist yarns demonstrate the utility and liveliness of Andean-style spinning and weaving. For more information, see page 101.*

Editor's Desk

Thanks for all the survey cards from the Spring '92 issue, and for the comments so many of you wrote in the margins. We've tabulated the results (yes, many of you want more pages of *Spin·Off*) and are analyzing numbers from this end. We're still asking questions and haven't got final answers, but I'd like to let you know why we're considering the possibility of a change.

The biggest reason is that we have more wonderful material than we have space in which to print it. The second reason is that we find ourselves with a terrific editorial team, along with a lot of support from readers, advertisers, and other Interweave staffers. On the editorial side, *Spin·Off* wouldn't be the same without the steady and inspired contributions of the following people, who are listed in alphabetical order:

—*Rita Buchanan,* who started by writing regular articles for *Spin·Off* and now devotes even more energy to helping other spinners get their ideas and accomplishments into the magazine. The ideas I didn't have time to develop are now steadily making their way into these pages, thanks to Rita, along with lots of other brainstorms that she's suggested. Many readers have asked for more articles by Rita herself, so we've got a two-part one on the schedule.

—*Bobbie Irwin,* whose indexing skills are invisibly helpful to all of us. As I ran through the index that appeared in this spring's issue, I was impressed again by Bobbie's ability to find the intuitive headings which fit "spinners' questions." Bobbie also prepares the calendar for each issue. I'm grateful for Bobbie's timely attention to detail . . . as well as her warmth and cheer. During overload times when I was about to be not only swamped but drowned, she has even flown in from out of state and helped bail.

—*Ann Klinect,* who was preparing "Spinners' Guild News and Views" (now "Spinners' Connection") when I arrived, and who meets deadlines with precision and joy. Ann has her finger on the pulse of spinners' groups, and is a major reason this community—spread all over the world—feels so energetic and well-integrated.

—*Dale Pettigrew,* whom many of you know in person or by name as the coordinator of the *Spin·Off* Autumn Retreat. Dale, who has filled many roles at Interweave, recently came back to work full time and, in addition to continuing with SOAR, she is now assistant editor of *Spin·Off.* She's only been here a couple of months, but already (1) I can find things, (2) my correspondence file is more current than it has been in quite a while (years?), and (3) life's looking up.

DEBORAH ROBSON

Rug reminder. We plan to feature rugs in the Spring '93 issue. To have your work considered, send a photo of the finished rug, samples of the fiber and yarn, and a description of how you made the rug to Rita Buchanan, c/o *Spin·Off,* 201 East Fourth Street, Loveland, Colorado 80537, by November 1, 1992.

The Convergence breakfast. Once again, we'd like to have an opportunity to get together with Convergence participants who have contributed to *Spin·Off* or any other Interweave publication. If you are one of these people, plan to join us for breakfast on Saturday, July 25. Drop us a note by Tuesday, June 30, with your name, address, and what your contribution has been, and we'll send you an invitation.

SPIN·OFF is published four times a year (March, June, September, and December) by Interweave Press, Inc., 201 East Fourth Street, Loveland, Colorado 80537. (303) 669-7672.

ISSN 0198-8239/USPS #680-950. This is Volume XVI, Number 2.

Publisher . . . . . Linda C. Ligon
Editor . . . . . Deborah Robson
Assistant Editor . . . . . Dale Pettigrew
Associate Editor . . . . . Rita Buchanan
Editorial Assistants . . . . . Katy Banks, Bobbie Irwin, Barbara Liebler, Betsy Strauch
Production . . . . . Marc McCoy Owens
Administrative Assistant . . . . . Karen Evanson
Photography . . . . . Joe Coca
Photo Styling . . . . . Ann Sabin Swanson
Illustrations . . . . . Ann Sabin Swanson
Advertising . . . . . Sharon Altergott, Vicki Yost
Staff: Jason Bramwell, Ann Budd, Barbara J. Ciletti, Stephen Tracy, Karen Hirmer, Bonnie Hoover, Donna Melton, Lois Biederstadt, Chris Hausman, Kathie Marostica, Rod Baum, Sally Ornelas, Mary Nell Schwindt.

Subscription rate is $18.00/year in the U.S., $22.00 in Canada and other foreign countries, surface delivery. Second class postage paid at Loveland, Colorado 80538 and additional offices. POSTMASTER: Send address change to SPIN·OFF, 201 East Fourth Street, Loveland, CO 80537.

Spin·Off subscriptions are available outside North America from the following agents: **Australia**—Kirsten Yarns Pty. Ltd., PO Box 197, Canterbury, Victoria 3126; Mill Hill Books, PO Montville 4560, Queensland. **New Zealand**—Books Unlimited, PO Box 9540, New Market, Auckland 1; Fibre Flair, Main Rd., PO Box 39, Waikanae. **Europe**—Fibrecrafts, Style Cottage, Lower Eashing NR. Godalming, Surrey GU7 2QD England. Friedrich Traub, Schorndorferstrasse 18, 7065 Winterbach, Federal Republic of Germany.

Subscribers please allow six weeks for processing address changes. Your customer number, found on your address label, is your key to the best service possible. Please include it with all correspondence to avoid delays or errors. 16M:5892:HP/CL

Louët equipment is available from coast-to-coast through a network of dealers. It is a joy to experience their enthusiasm about our products. Go and have a look, and ask about our ever-expanding assortment of products. The following dealers contributed to this ad. If you need names of dealers closer to you, or if you have a specific question, please write us.

ALASKA
Anchorage
Hillside Woolen
9191 Oldseward Highway
(907) 344-4705
North Pole
Fur Fiber 'n Fun
3343 Badger Road
(907) 488-6830
Palmer
The Arc
326 West Evergreen
(907) 745-6020
Wasilla
Lanuda Fiber Factory
Box 871374
(907) 376-2533

ARIZONA
Tucson
Spin & Weave
3054 N. First Ave.
(602) 623-9787

CALIFORNIA
Cool
Spinner's Corner
3070 Penobscot Road
(916) 885-9484
Davis
Arachne's Obsession
704 Raddcliffe Drive
(916) 758-4488
Hemet
The Yarn Peddler
475 W. Stetson, "B"
(619) 249-3609
Hughson
Bar-B-Woolies
5308 Roeding Road
(209) 883-0833
Orange
Hare's to Ewe
118 South Glassell, #200
(714) 538-8160
Red Bluff
Spin-A-Yarn
Deborah Lynn Clarke
10790 Rawson Road
(916) 529-3364
San Martin
J Bar H Ranch
13185 New Avenue
(408) 683-2710
Santa Ana
Hare's To Ewe
1234 South Main St.
(714) 542-1963
Stockton
Harliquin House Art Center
1037 South Center St.
(209) 462-4812

COLORADO
Estes Park
Bountiful
125-B Moraine Ave.
(303) 586-9332

CONNECTICUT
Branford
Aries Yarns & Crafts
779 E. Main St.
Branford Craft Village
(203) 481-2362
Windsor
Teasels
261 Broad Street
(203) 686-8686

FLORIDA
Oviedo
Fiber Flair Inc.
3535 Old Lockwood Road
(407) 365-6139

GEORGIA
Ellijay
Big Creek Farm
Route 5, Box 101-B
(706) 635-2034

IDAHO
Meridan
Haneke Merino Wool Fashions
4600 Quarterhorse Lane
(208) 888-3129

ILLINOIS
Gilson
Applewood Woolery
RR #1
(309) 462-3876
Harvard
The Country Merchant
2007 Island Road
(815) 943-6510

INDIANA
Valparaiso
The Sweet Basil Farm
222 West, 375 South
(219) 462-0825

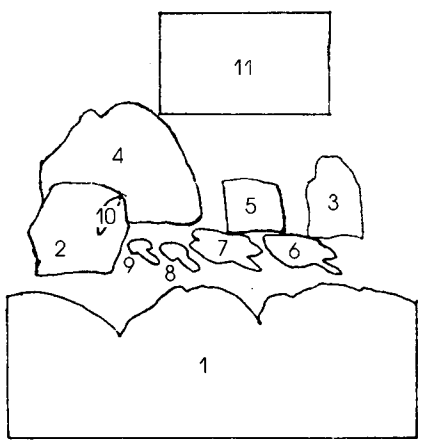
IOWA
Cedar Rapids
Ewe Knit Too
1312 1st Ave. N.W.
(319) 365-4321
Primghar
The Natural Fiber
R.R. #1, P.O. Box 55
(712) 757-3875
Waterloo
Black Ram Limited
5100 Eldora Road
(319) 235-6181

KENTUCKY
Corinth
Kokovoko
Route 3, Box 134
Hinton-Webber Road
(606) 234-5707
Louisville
Designs in Textiles
1633 Cowling Ave.
(502) 459-2650

MAINE
Bath
Halcyon
12 School Street
(207) 442-7909
Bethel
Mainly Fibers
Main Street, P.O. Box 448
(207) 824-3666
Fryeburg
Braelyn Farms
R.R. #1, Box 200
(207) 925-1811
Standish
Shearbrooke Farm
400 Saco Road
(207) 642-3067
Windham
Canada Hill Farm
251 Highland Cliff Road
(207) 892-8148

MARYLAND
Baltimore
Weaver's Place
75 Mellor Avenue
(301) 788-7262
Oakland
Lenora's Fabric & Yarn
Rt. #2 P.O. Box 79
(301) 334-2783

MASSACHUSETTS
Beverly
Homespun Rabbitry
449 Elliot St.
(508) 927-7054



1. Spinning Fibers
2. Drum Carder
3. Roving Carder
4. Electric Drum Carder
5. Carding Board
6. Cotton Hand Cards
7. Wool Hand Cards
8. Flicker
9. Doffer
10. Doffer Pin
11. Sheep Poster

MICHIGAN
Hastings
Lady Peddler
142 E. State St., Box 501
(616) 948-9644
Homer
Raspberry Shire Farm & Fiber
1451-25 Mile Road
(517) 568-3626
Kalamazoo
Sheep To Shuttle
8506 Sprinkle Road
(616) 327-2862
Lapeer
Heart's Ease Farm
3012 Sutton Road
(313) 797-4155
Marshall
Natural Fibers
17519 L. Drive South
(616) 781-8045
Three Rivers
Sharon's Knitting Nook
34 N. Main Street
(616) 273-8619

MINNESOTA
Avon
The Weaver's Cabin
20578 317th Street
(612) 845-7115
Dalbo
Spinners of Northfield Meadow
Rt. 1, Box 110
(612) 389-5053
Hayfield
Nancy Ellison
Rt. #2, P.O. Box 197
(507) 477-3569
Maple Plain
Detta's Spindle
2592 Geggen-Tina Road
(612) 479-2886

MISSOURI
Florissant
Weaving Dept./Myers House
180 Dunn Road
(314) 921-4606

MONTANA
Roundup
The Ewe's Cottage
P.O. Box 672
(406) 323-1708

NEW HAMPSHIRE
Henniker
The Fiber Studio
9 Foster Hill Road, Box 637
(603) 428-7830
Laconia
Lakes Edge Fiber Works
559 Union Avenue, Box 806
(603) 524-7023
Wilmot
Farm Mountain Sheep & Wool Co.
HC 66, Box 29, N. Wilmot Rd.
(603) 526-9665

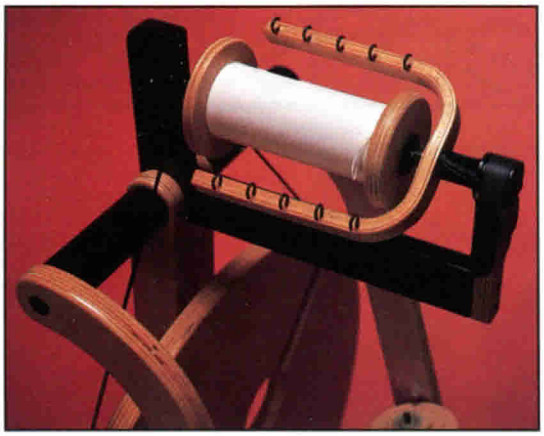
NEW JERSEY
Clinton
Fibre Crafts
38 Center Street
(908) 735-4469
Neshanic Station
The Spinnery
Box 156 Road #202 North
(908) 369-3260

NEW MEXICO
Albuquerque
Village Wools
3801 San Mateo North East
(505) 883-2919
Taos
La Lana Wools
136 Paseo Norte
(505) 758-9631

NEW YORK
Argyle
Juniper Hill Farm
R.R. #1, Box 1195
Safford Road
(518) 638-8749
Charlton
Woodside Weavers
4091 Jockey St., Rd #3
(518) 399-7991
Crown Point
Spin 'N Knit Crafts
Factoryville Road #2, Box 33
(518) 597-3785
Dundee
Black Oak Wool Company
4705 Bailey Hill Road
(607) 292-6915
Fort Covington
The River Cottage
Rt. #37
(518) 348-4428
Greenville
The Spinning Mill
Rd. #2, Box 109A Newry Road
(518) 966-8122
Henrietta
Helen Brown Fiber Shop Inc.
3182 East Henrietta Road
(716) 334-1440
Little Falls
Windhover Wools
401 South Ann Street
(315) 823-0969
Syracuse
Muskrat Bay Wools
203 B. Kirkpatrick
(315) 475-3864
Mt. Kisco
The Wool Room
Laurelton Road
(914) 241-1910

NORTH CAROLINA
Cary
Shuttles, Needles & Hooks
214 E. Chatham St.
(919) 469-WEAV
Pleasant Garden
Carolina Homespun
P.O. Box 687
(919) 674-1190

OHIO
Akron
Clearock Weaving Studio
713 E. Wilbeth Road
(216) 724-7191



New

"Fat core" high-speed bobbin. Ideal for spinning fine fibers. Available for S-90 and other wheels.

New

Special fine-spinning flyer for older spinning wheels. With new "fat core" bobbin, will upgrade all Louet wheels for fine fibers.

Beavercreek
Fiberworks
3102 Maginn Drive
(513) 426-5522
Clyde
The Little House
1927 N. Main Street
(800) 554-7973
Findlay
Gineth Challen
2242 Quail Road
(419) 422-0003
Findlay
Yarn Farm
11610 TR 180
(419) 423-4252
Grafton
Weaverbird
Box 142
36551 Grafton Road, East
(216) 926-3551
Wadsworth
Sally's Shop
139 College Street
(216) 334-1996

OKLAHOMA
Sand Springs
Brush Creek Farm
Rt. #1, P.O. Box 235
(918) 241-2437

OREGON
Ashland
The Web*sters
11 North Main Street
(503) 482-9801
Estacada
Springwater Sheep & Wool
26040 S. Warnock
(503) 630-3626
Prineville
Odyssey Fibers
203711 Quail Valley Dr.
(503) 447-3437
Salem
Creek Water Wool Works
4066 Munkers Street S.E.
Box 716
(503) 585-3302
West Linn
Molehill Farm
1246 SW Borland Rd.
(503) 638-6799

PENNSYLVANIA
Alum Bank
Hillside Shepherd
Rd. 1, Box 44
(814) 839-2506
Delmont
Knots & Treadles
103 East Pittsburgh St.
P.O. Box 394
(412) 468-4265
East Berlin
Mannings Creative Crafts
1132 Green Ridge Rd.
P.O. Box 687
(717) 624-2223
North East
The Weaver's Shop
10675 West Law Road
(814) 725-5377
Rochester Mills
Autumn House Farms
Rd. #1, P.O. Box 105
(412) 286-9596
Sellersville
Rockwild Angoras
2409 B. Kooker Avenue
(215) 257-3391
Smicksburg
The Weaver
P.O. Box 80
(814) 257-8891

TENNESSEE
Christiana
Simple Gifts Fiber Studio
Rt. 2 Millersburg Road
(615) 890-5172
Martin
Possom Valley Farm
Weaver's Shop
Rt. #2
(901) 587-3489

TEXAS
Tyler
The Fiber Workshop
2522 Sheryl Lane
(903) 597-8306

UTAH
Bountiful
The Shearing Shed
2551 South 150 West
(801) 298-0893
Salt Lake City
Salt Lake Weavers Store
1227 East 3300 S #D
(801) 486-1610

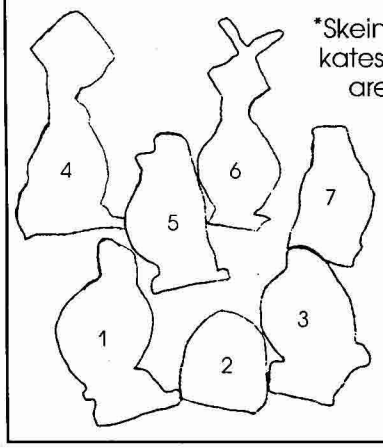
VERMONT
Clarendon Springs
Shear Joy Farm
R.R. Box 2880
(802) 438-5406
So. Duxbury
Singing Spindle Spinnery
CJ Collins, P.O. Box 1000
(802) 244-8025
Guilford
Green River Homespun
Jacksonville Stage Rd.
(802) 257-7275
Pawlett
Beau Monde
Rt. #30, Box 687 N. Rupert
(802) 325-3645

VIRGINIA
Centreville
Bobbi
15008 Jarski Ct.
(703) 818-1278
Chesapeake
The Loom Room
617 Saddlehorn Drive
(804) 482-1862
Delaplane
Misty Mountain Farm
Rt. 1, Box 341
(703) 364-1947
Timberville
The River Farm
Rt. #1, P.O. Box 401
(703) 896-9931

WASHINGTON
Moxee
Pintler's Sheep Camp
530 Faucher Dr.
(509) 453-0183
Seattle
The Weaving Works
4717 Brooklyn Ave., NE
(206) 524-1221
Tenino
Angora Valley Fibers
19402 Goebel Road, SE
(206) 264-2030
Wahkiacus
Whistling Pine Ranch
762 Mill Drive
(509) 369-3362

WISCONSIN
Clinton
Hickory Grove Antiques
RR #2, Box 170
(608) 676-4256
Columbus
Susan's Fibershop
N250 Hwy. "A"
(414) 623-4237
Hayward
Wildflower Rabbitry
Rt. #7
Box 7900 Twin Lake Rd.
(715) 462-3676
Madison
Weaving Workshop
920 East Johnson Street
(608) 255-1066
Onalaska
Vee's Fiber Studio
W. 5922 CTH "OS"
(608) 783-3081

CANADA
ALBERTA
Bragg Creek
Hawkeye Llamas
P.O. Box 592
(403) 949-4353
Stony Plain
Canadian Co-op Wool
Growers Ltd
4500 50th Street
P.O. Box 1530
(403) 963-4343
MANITOBA
Oakbank
Yarnspinners
12 Juniper Drive
(204) 444-3038
Winnipeg
The Goodwool Shop
1103 Corydon Avenue
(204) 452-4891
NOVA SCOTIA
Lunenburg
Windy Ridge Fibers
Box 1018
(902) 624-9789
ONTARIO
Carleton Place
Mississippi Black Sheep
205 Bridge Street
(613) 257-7152
London
Helen Koop Spinning Shoppe
662 Warren Road
(519) 471-8804
Mt. Albert
Gemini Fibers
5062 Mt. Albert Road E.
RR #1
(416) 473-1033
Ottawa
Maggie Glossop
677 Edison Avenue
(613) 729-8854
Richmond
Le Marais
RR #1, 6950 Franktown Rd.
(613) 838-2698
QUEBEC
Point Claire
Toisons de Ville
521 Donegani, Apt. 8
(514) 695-7838
SASKATCHEWAN
Saskatoon
Prairie Lily Weavers
7-1730 Quebec Avenue
(306) 665-2771



*Skeinwinders, lazy kates and distaffs are optional.

1. S-15
2. S-40
3. S-76
*4. S-51
5. S-90
*6. S-75
7. S-10

Ask your **Louët** dealer about our full assortment of spinning fibers.

- Alpaca
- Cashmere
- Cashgora
- Cotton
- Flax
- Merino
- Mohair
- Silk
- Coopworth Top
- Icelandic Top
- Wool/Silk Blend
- Wool/Cotton Blend
- Wool/Angora Blend

Letters

Dear *Spin·Off*,

A few weeks ago I was eating lunch with a friend in what had been a favorite traditional eatery. . . . The owner/manager of some thirty years had just retired, and the old decor was being removed, the menu was being changed . . . and Clyde's familiar, caring, "How ya doin', sugah?" was replaced with a new set of beer taps. I turned to my friend. "I know things have to change, but why does it always have to be for the worse?" That afternoon I received the Winter issue of *Spin·Off* in the mail.

How nice to be wrong.

Spin·Off has grown and changed greatly in the two years that I've subscribed, and just keeps getting better (I believe that my comment as I flipped through the latest issue was, "this one is *juicy*"!). I recently took my first official spinning lesson, and found that I had already mastered the various techniques taught just from studying your magazine. The lesson did not cover spinning from the fold, but Rita Buchanan's article finally let me use up the half-pound of mohair top that had refused to be spun in any other way. Keep up the good work!

—Ann Durham
Tallahassee, Florida

Editor's note: Thanks so much, Ann. We often wonder whether what we're working so hard to get across in two dimensions is actually making it. It's great to hear that it is! Having been "isolated spinners" ourselves before taking responsibility for Spin·Off, *we know exactly what it's like to sit there with fiber "that refused to be spun."*

Spin·Off, *as an evolving magazine, continues to be very exciting for us. We're striving to make it* better, *not just "new and different."*

Dear *Spin·Off*,

I commend Deb Menz on her article, "Using Lanaset Dyes on Fibers," in the Winter 1991 issue. I have been working with dyes and teaching classes on coloring cloth for twelve years. This article is consistent, understandable, and very informative. It provides an excellent foundation for exploring repeatable color.

For the beginner or advanced dyer, the methods she presents for approaching color mixing and measuring instill one with confidence. This in turn dispels any mystery or confusion that can hamper repeatable dyeing for any type of dye being used.

I couldn't help but notice that a supplier for Lanaset dyes was not mentioned. You will not find this dye being referred to as Lanaset very frequently. The manufacturer has requested that this name be retained exclusively for their usage. This type of dye can be found as Sabreset at PRO Chemical & Dye (Dept. SO, PO Box 14, Somerset, Massachusetts 02726, or 508-676-3838).

Hats off and a round of applause for Deb Menz. Thank you.

—Erin Noble, Lab Manager
PRO Chemical & Dye,
Somerset, Massachusetts

Editor's note: Thanks for the clarification. We knew something was happening with the names applied to these dyes—which are also sometimes called "Telana," and may be marketed under other titles as well. But we hadn't been able to track down an explanation.

Dear *Spin·Off*,

Spin·Off is wonderful! After seven years of spinning, I really appreciate the technical information, and, to those readers who may find it intimidating, take heart, for we have all been beginners!

—Jane Frey
Fort Saskatchewan, Alberta

Dear *Spin·Off*,

I have subscribed to *Spin·Off* for several years and found that going back through all the issues to find what I wanted was time-consuming. So now I make copies of the tables of contents and keep them in a looseleaf binder for handy reference.

Thank you for an excellent publication.

—Beth Emery
Sequim, Washington

Dear friends,

We are just learning to spin as a retirement project after raising market lambs from our farm flock for nearly forty years. We enjoyed especially the article in the Winter 1991 issue about what to do with one's first spinning efforts (novelty yarn, we lovingly call it). Natural dyes are a special interest of ours, so any suggestions about them are thoroughly studied. And how we yearn over the ads about different fleeces. There will be no end to this adventure!

A lovely book, *The Quiet Joy*, by Grace Martin, gives many ideas for making hangings and finger-weaving projects, using natural dyes, and weaving on a small loom. It sings with poetry and with descriptions of color and of the sounds of nature. It's worth tracking down—published in the 1940s, I think—to add to one's library for inspiration or just lovely reading.

—Pauline Tysseling
Pella, Iowa

Dear *Spin·Off*,

Hooray! I'm ready to throw my hand cards in the trash!

As a beginning spinner, I have been duly carding rolags and spinning horrible yarn from them—and becoming more and more discouraged. After all, if I couldn't produce decent yarn from what is considered the most elementary preparation, how could I ever progress to commercially prepared top and—gasp!—luxury fibers, like silk? I was ready to turn my Ashford into kindling!

Until . . . Rita Buchanan's "Spinning from the Fold" (Winter 1991). It looked easy—too easy. However, attempting this method with some tussah top (which I had considered giving away in despair)—it worked! Feverish with new enthusiasm, I tried ramie—it worked again! With all the fervor of a religious convert, I pulled out my one pound of prized wool top, and in a few days produced the sample attached. Okay, it's not going to win prizes, but Rita's article has restored my confidence.

Tell Rita she can pop in for a cup of tea any time!

—Laura Sibley-Seml
Gainesville, Florida

Editor's note: Save those hand cards! We're working on getting you some help with those, too! And wouldn't it be great if we could all *have tea some time! (With our wheels, and not all at once, of course, although that would also be interesting.)*

Your editors are eager to hear from you. Please send your letters and comments to "Spin·Off Letters," 201 East Fourth Street, Loveland, CO 80537.

Readers Ask

Brake bands

After the original brake band on my Ashford wore through, I used fishing line, then an Ashford repair kit, then I went back to fishing line . . . and the cycle has repeated.

Does anyone have suggestions for other types of brake bands that are readily available and will last?

—Carol Neeves, Sioux Falls, South Dakota

Editor's note: I've used nylon (classical) guitar strings with success--you can claim them from the guitarist after they've served their original purpose, or go out and buy a single string for a dollar or so. Try a second or third string (B or G, unwound); each string should yield at least two brake bands, and they tend to last very well. Does anyone else have suggestions?

Drive bands

My spinning wheel came with a drive band made of braided linen cord which works like nothing else I have tried. Does anyone know where I can get a supply of this type of linen?

—Beth Covey Moore, Klamath River, California

A supplier and a tensioning device

Does anyone have an address for Mainland Cottage Crafts? Or know where I can find a tensioning device for a bulky spinning wheel, called a Cottage Spinner, made by Harley Darnel?

Thanks!

—Cindy Bucher, Livingston, Kentucky

Masterweaver loom

Help! I'm trying to locate a loom by the brand name of Masterweaver. It was developed by a Canadian and marketed in the late 1970s and the 1980s. The last address associated with them was 145 Front Street East, Toronto, although they are now out of production.

I am interested in locating the producer/developer, or a manucfaturer, or anyone who would be willing to sell me their loom.

Sara Monger, Austin, Texas

Questions and responses for "Readers Ask" can be sent c/o Spin·Off, *201 East Fourth Street, Loveland, Colorado 80537.*

The Spinning Wheel Shop

"Established 1960"

All our wheels are Traditional.

30" Double Treadle *(pictured)*
First introduced in 1969. This is the fastest spinner we have ever had the thrill of keeping up with.

30" Single Treadle
A production-type wheel.

24" Double Treadle

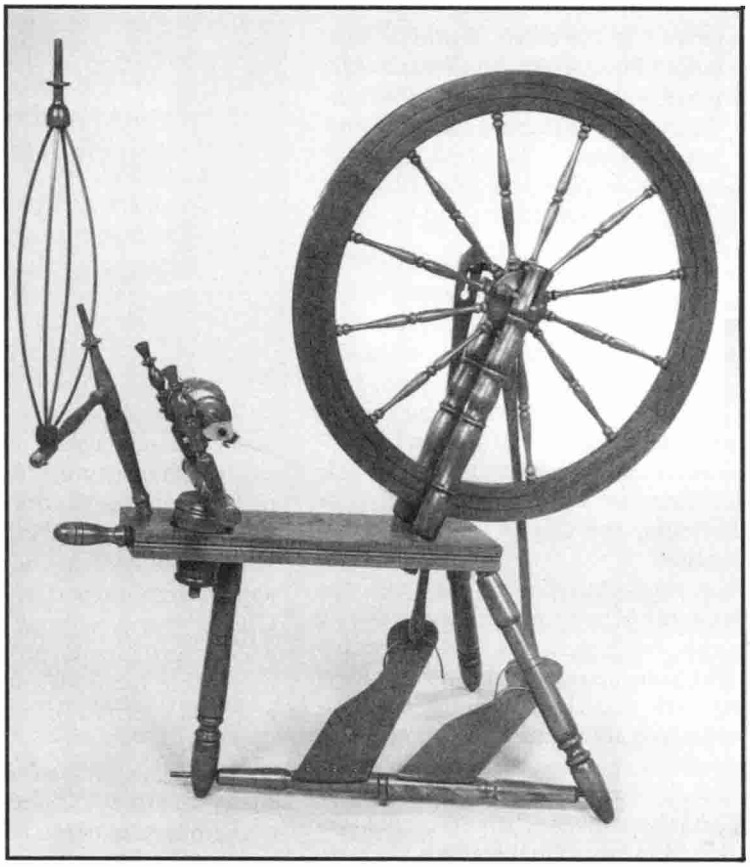
24" Single Treadle

21" Double Treadle

21" Single Treadle
A fine standard-size Traditional.

18" Single Treadle
Very easy to transport.

Lazy Kates



Crafted from northern hardwoods

Hand-forged metal parts • Leather bearings on flyers
• Six ratios • Double-drive band

• All complete with staff and three extra bobbins

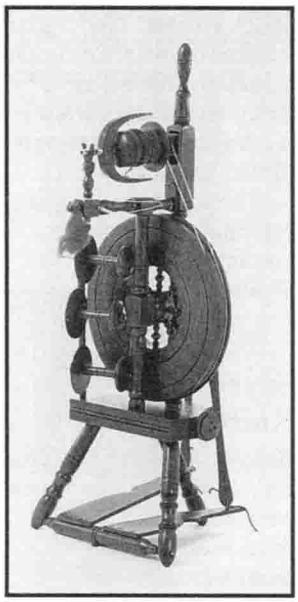
Available stained, finished or unfinished
Scotch drive included on all wheels
Optional high speed ratios available 29:1

Dealer inquiries are invited—please send for free brochure.

Audrey & Jerry Jensen

The Spinning Wheel Shop

1135 Highway K, Wisconsin Dells, WI 53965
608 / 254-2605
Hours: Monday–Friday, 8 am–5 pm
Weekends, by appointment—call to confirm



Call for information on
"Tina" our Little Upright Traveler

Books

Charts for Colour Knitting: A designers' source book from the personal collection of Alice Starmore

Alice Starmore

Achmore, Isle of Lewis, Scotland: The Windfall Press, 1992. Hardbound. 137 pages. $19.95. ISBN 1-874167-00-1. In U.S., order from Tomato Factory Yarn Company, Dept. S, 8 Church Street, Lambertville, New Jersey 08530, for $22.95 ppd. (NJ residents add $1.40 sales tax).

If you like Fair Isle knitting, you'll love this book. Strictly and elegantly black-and-white, from jacket to binding through pages in between, it's a compendium of treats for those who glory in the form. Imagine the "pattern library" in *Alice Starmore's Book of Fair Isle Knitting* as a table of fine hors d'oeuvres, and this as the subsequent banquet.

A short introduction discusses the designing of patterned sweaters—using motifs, borders, panels, and allover designs; considering weight of yarn; playing with swatches; deciding on measurements and a knitting plan; placing the patterns.

Then the book launches into the charts themselves. Chapters include designs from traditional regions (Norway, Sweden, Finland, Estonia/Latvia/Lithuania, Russia, and South America), adapted designs (Celtic, Greek, from the Caucasus, the Middle East, and the Far East), and images from personal observation (birds/flowers, sea/shoreline, the "inner landscape").

The accompanying text is very brief, personal—and adequate, because what you're here for is the charts. They abound.

—Deborah Robson

Seventeenth Century Knitting Patterns

Boston: The Weavers' Guild of Boston, 1990. Monograph one, second edition. Softbound. 38 pages. $5 ppd. from WGB Monographs, PO Box 517, Saunderstown, Rhode Island 02874.

Do you ever feel like knitting something a little different with your handspun? Try the seventeenth century for variety. The Weavers' Guild of Boston, working with Plimoth Plantation, has redone their pattern book of eleven knitted items, which Plimoth uses for costumed interpreters in the recreated village. All but one of the designs are copied from existing pieces in museums in Great Britain. The first, a "thrum cap," is well-known from the period through written references and a few illustrations, although no example has ever been found.

Granted, knitted garters and purses aren't staples in most wardrobes these days, but most of the items would make intriguing small projects, with interesting possibilities for adaptation and "customizing." All knitting skill levels are represented, from very easy to complex.

The four caps included range from attractive and useful (the "Gunnister cap," with turned-up brim) to distinctly odd (the above-mentioned thrum cap), but most of us probably know someone who would love any one of them. Disappointingly, no pattern is given for the Gunnister cap without a brim. Experienced knitters could probably produce a reasonable facsimile, using the photograph and pattern for the brimmed cap as a guide.

Inconsistencies in the patterns make the book less useful for timid knitters. Some patterns come complete with a standard gauge, suggested needle sizes, and yarn weight. Others simply give a needle size and a general "singles, doubled"—with no gauge—for the yarn. Still others have no information at all, leaving the knitter to decipher some form of gauge from the included archaeological text.

For reenactors and reproduction enthusiasts, to whom this book will be particularly attractive, I offer one warning about authenticity. Most knitting of this and earlier periods was deliberately and heavily fulled. The pieces from the Gunnister burial in particular were constructed much larger than their finished size and then fulled, probably to increase warmth and durability. Other pieces may have fulled during the normal course of being worn. None of the patterns takes this into account; to make a truly accurate period cap, work much larger and then shrink to the correct size.

I have a few other reservations about some of the book's historical interpretations—including the statements that the flat cap is "certainly the ancestor of the Scots bonnet," and that natural dyes produced "somewhat soft, muted colors." And a suggestion remains from the first edition which I had hoped would vanish in this one: that one spend hours knitting an undershirt from Orlon (for softness, try Merino!).

Aside from such academic fine points, this is a nice little project for any knitter who wants something out of the ordinary.

—Deborah Pulliam

The Knitter's Design Sourcebook

Hélène Rush

Camden, Maine: Down East Books, 1991. Softbound. 94 pages. $19.95. ISBN 0-89272-298-3.

Here is another treasure for handknitters by Hélène Rush, author of *Maine Woods Woolies* and *More Maine Woods Woolies,* and co-author of *Sweaters by Hand.* In this work, Rush provides an excellent sourcebook for knitters, with patterns and over 230 charted motifs to get anyone's creative juices flowing.

This book is designed for the intermediate knitter striving to go beyond commercially printed patterns. It is divided into two sections: sweater patterns and motif charts. The sweater pattern section provides instructions for twelve basic sweater styles, including cardigans and pullovers in children's and adults' sizes. The instructions include gauges of 4, 5, and 6 stitches per inch, so you can use materials on hand to explore designs.

The motif section shows how sweaters can be enhanced with a variety of patterns, including geometric designs, borders, checks, plaids, and stripes. Motifs range from flowers to flying saucers, covering seasonal motifs, lots of designs usable for boys and men's sweaters, and a number of Fair Isle patterns. High-quality color photographs appear throughout the book.

The book includes tips on how to combine motifs and plan the overall look of the garment as well as how to develop your own ideas. There's even a

—continued on page 23

Looking over old records the other day, we were surprised to find that we've published over sixty books in the last decade. We never quite intended to do so many, but when a fine manuscript comes along, one that you know your readers will use and enjoy, it's hard to say no. We're featuring some of these books—both old and new—in this special advertising section. For a more complete listing, please drop us a postcard requesting an up-to-date catalog, or check at your local spinning shop.

Linda Ligon, publisher

Handspinning, Dyeing, and Working with Merino and Superfine Wools

Margaret Stove

World-renowned handspinner Margaret Stove, a favorite mentor at Spin·Off Autumn Retreats, has finished her book on spinning Merino and other fine wools. It's everything we've been waiting for: Margaret's techniques for washing, spinning, dyeing, and blocking—along with many of her special patterns for knitting and crocheting shawls, baby garments, and more. If you're interested in working with fine wool (and what spinner isn't?), you'll want Margaret's insights and guidance to ensure your success.

7 3/8 x 9 3/4, hardbound, 112 pages, color and b&w photos.

#721 $21.00

*Angora: A Handbook for Spinners**

Erica Lynne

If you've always wanted to spin angora but have been afraid to try, or if you've always wanted your own fiber source—all year long—***Angora: A Handbook for Spinners*** is THE book for you. From raising these furry wonders successfully (we're talking about one or two rabbits) to harvesting their precious downy fiber to spinning one-of-a-kind yarns, you'll learn all you need to know about angora. Also included are Erica Lynne's inspiring and elegant patterns for sweaters, shawls, caps, and mittens.

8 x 9 1/4, paperbound, 120 pages, b&w photographs and illustrations throughout.

#597 $14.95

** available in July*

Graph It!™

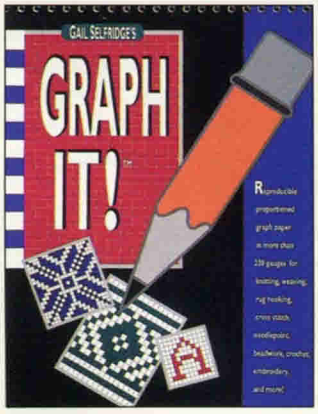
Gail Selfridge

Reproducible proportioned graph paper in more than 200 gauges for knitting, weaving, crochet, cross stitch, needlepoint, beadwork, embroidery, and more!

Using one of the more than 200 gauged papers in this handy tablet, you can chart accurate designs for all your needlework. The papers range from 3 to 14 squares per inch and cover a wide range of proportions; you'll find just the right one for your rosepath figures or Fair Isle knits. Trace a freeform design onto the appropriate paper and translate it easily into a working chart. Photocopy and tape many pieces together for large projects. The options are many.

8 1/2 x 11, spiral bound, 112 pages, b&w illustrations.

#620 $14.95



Sweater Design Workbook

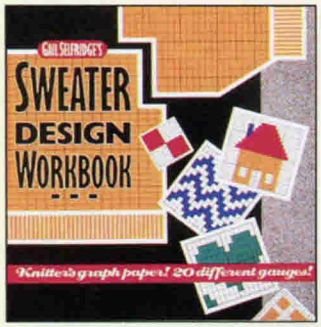
Gail Selfridge

Worth the price of the book alone is the special section of reproducible knitter's graph paper in 20 different gauges!

The Gail Selfridge Basic Sweater is the most versatile sweater pattern that you'll ever find, whether you're knitting by hand or machine, a beginning or intermediate knitter. Easily shaped, sized, and styled for babies, youngsters, teenagers, and adults, this modular pattern can accommodate any weight of yarn—including handspun. Best of all, it can be easily embellished with original color and texture patterns to create dozens of different looks, using the special Gauged Graph Paper that's included.

8 1/2 x 9, paperbound, 120 pages, color photos, and b&w illustrations throughout.

#612 $14.95



To order: If you can't find our books at your local spinning and weaving shop, use the handy order form opposite. It lists all the books shown in this section as well as others that we offer. And don't overlook the magazine subscription/renewal/gift information on its back.

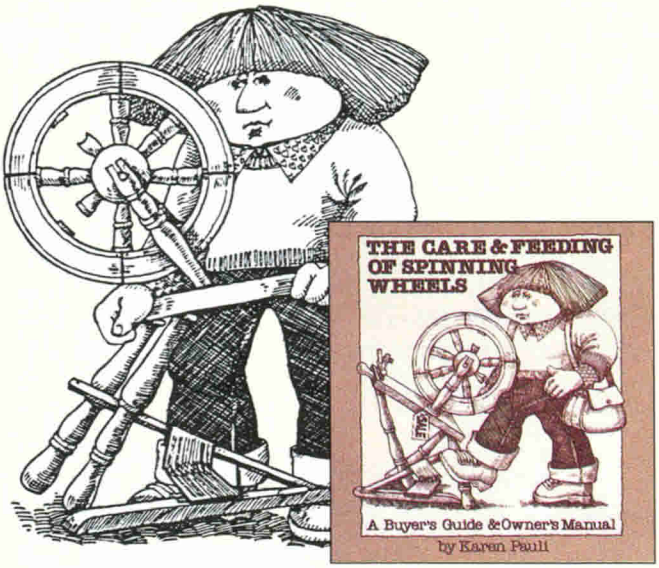
Hands On Spinning

Lee Raven

Lee Raven has taken an intelligent and helpful approach to every facet of fiber preparation and twist insertion in this unparalleled introduction to handspinning. Also included are simple but attractive projects for using handspun yarn. Even experienced spinners will find much that's useful in this informative guide.

8½ x 11, paperbound, 120 pages, color photos and b&w illustrations throughout.

#575 $8.95



The Care & Feeding of Spinning Wheels

Karen Pauli

A "buyer's guide and owner's manual" for selecting and restoring old wheels and keeping new ones in good running order. Special chapters on troubleshooting, lubrication, traveling with a wheel, and more—all profusely illustrated in black and white—show you how.

8½ x 9, paperbound, 84 pages, b&w illustrations throughout.

#470 $7.50

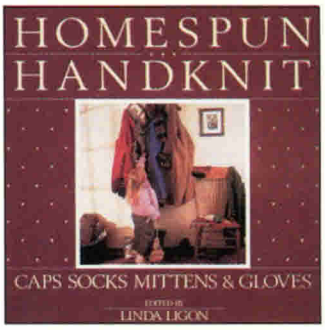
Spinning Designer Yarns

Diane Varney

Designer yarns—tweedy, bumpy, kinky, shaggy, loopy, screwy, stylish—are fun to spin, and *Spinning Designer Yarns* tells you how. Written for beginning and intermediate spinners (or advanced ones with a yen for something new), this book explores the world of supersoft luxury fibers, textured effects, and dyepot miracles.

7¼ x 9, paperbound, 96 pages, color photos and b&w illustrations throughout.

#580 $12.00

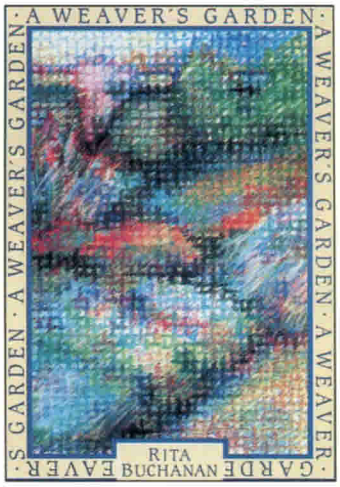


Reading through this seductive book resembles passing a day with a roomful of competent and friendly knitters, all producing small, cosy, rewarding examples of handknitting, and all of us knitting and chatting at once.

Elizabeth Zimmermann

A Weaver's Garden

Rita Buchanan



This book has so much to offer, it's hard to know where to begin. How to grow and use your own cotton, flax, hemp, moth repelling herbs, fuller's teasels, soapwort, lavender. Historical and cultural information on dozens of other plants that have been used in the traditional textile crafts for centuries. Beautiful illustrations, inspiring color photos. A chapter on growing dyeplants and converting them into a complete spectrum of lively, fast colors that surpasses anything we've seen in print.

6 x 9, hardbound, 240 pages, color photos and b&w illustrations throughout.

#573 $16.95

Homespun, Handknit: Caps, Socks, Mittens & Gloves

Linda Ligon, editor

If you're one of those spinners who likes to spin a little of this and a little of that, you'll find this book a fine source of patterns for small projects. It includes favorite designs, both easy and hard, from fifty experienced spinners and knitters, including Rita Buchanan, Priscilla Gibson-Roberts, Jackie Fee, and more. There are great mittens using "beginner" yarn, an exquisite baby set of fine angora blend, and all kinds of caps, socks, mittens, and gloves in between.

8½ x 9, paperbound, 160 pages, color photos and b&w illustrations throughout.

#577 $15.00

Spinners' Connection

by Ann Klinect

Those lazy, hazy, crazy days of summer! The time when nature's finery inspires me to experiment with dyepots, colors, and fiber blends. Isn't it amazing that colors in nature don't "clash"?

Summer for many spinners sometimes appears to be an endless round of fairs, exhibitions, and competitions. How many of you began to spin because you were intrigued by a demonstration, as I was? And how many pounds of fibers, gallons of dye, and skeins of yarn . . . not to mention numbers of spinning wheels . . . later is it?

I wish you could all look over my shoulder as I read newsletters from spinners' groups around the world. You are such a creative, talented group of people, and so willing to share. Won't you check with your newsletter editors to make certain I'm on the mail list, so what is happening in your group can be passed along? Also, I will send you as many newsletters as possible if you will send an SASE (business-size envelope, 4⅜" × 9½") with two ounces' worth of postage.

A quick reminder . . . the Annual Summary of Spinning Groups is moving to the Winter issue of *Spin·Off*. New listings and/or corrections must be sent to me no later than September 5, 1992. Any listings or changes received after that time will be listed in the Spring 1993 issue as changes to the summary.

Please send all newsletters and mail for this column directly to Ann W. Klinect, 7410 77th Avenue SE, Snohomish, Washington 98290.

An open challenge to Fiber Lovers Everywhere from **Choctawhatchee Bay Spinners Guild** (Florida): "We hope other guilds will take up the gauntlet for their members to put in writing a 1992 resolution to make a serious start, and perhaps even finish, some fiber project that has been on the back burner. By putting it in writing for all to see, you have made a firm commitment to yourself (and the world will now nag you to get it done)."

The **Tulsa Handspinners** (Oklahoma) recently organized and have reported great attendance. Some of their programs have covered "what to do with your finished product" and "different ways of handling variegated dyed rovings." Unfortunately, their letter did not have a mailing address . . . Judy, could you drop me a card so I can put your listing in the annual summary?

Thirty-one members of the **Spinner's Flock** (Michigan) donated at least 288.5 hours demonstrating at fifty-three different locations during 1990–91, reaching an estimated audience of 3210! The group plans to track efforts month by month in 1992, to have a better estimate of the group's community outreach.

After a recent meeting of the **Spindle and Dyepot Guild** (Wisconsin), someone suggested taking videos of guild programs to keep in the library.

A member of the **St. Croix Valley Spinners** (Wisconsin) reports using the annual summary of spinning groups to meet spinners on a solo trip to Australia. She now enjoys corresponding with people who opened hearts and homes to her during her travels.

Members of the **Suncoast Fiber Guild** (Florida) used a variation of the old-fashioned box social for a fundraiser. Each person filled a handmade container with lunch and attached the menu to the outside. The containers were auctioned off.

During a felt-hat–making session, members of the **Blacksheep Handspinners Guild** (New York) draped and coiled colorful tresses of carded fleece over basketballs and soccer balls. Space doesn't permit listing all the steps, but the mental images of dribbling "gussied-up and soaking basketballs around the room" does sound wild!

The **Lancaster Spinners and Weavers** (Pennsylvania) have applied to become a "Lancaster 250" group. When the selection is made, a demonstration of spinning and weaving will be planned to celebrate Lancaster's 250th birthday; the resulting project will be donated to the Heritage Center.

Members of the **Mesilla Valley Weavers** (New Mexico) are working on a four-panel weaving project depicting characteristics of Las Cruces. The weaving will belong to the guild but will be displayed in community buildings.

Homespinners Guild (California) plans to showcase guild talents through craft presentations by members.

To encourage more member participation in their newsletter, *CHHit CHHat*, the **Contemporary Handweavers of Houston** (Texas) decided to have theme issues—they think that members will find it easier to write about a given subject.

On the subject of newsletters . . . a question posed by the editor for **Friendship Spinners** (Kentucky)—"What is your favorite mail order source, and why?"—brought several great responses. Answers were listed for all members to use. The next question is: "What is your favorite project source book or magazine?"

Members of **Hawg Creek Spinners and Weavers** (Ohio) were asked to bring spun samples and record-keeping paraphernalia to a meeting this spring so everyone could get ideas on how to organize and keep track of samples.

The **Ottawa Valley Weavers and Spinners Guild** (Canada) offered a "for members only ad special" for the April newsletter. Ten words, noncommercial, one ad per member as space permitted, for $1.

An "extravaganza of wheels" was the theme for a meeting of the **Peachtree Handspinners Guild** (Georgia). Members brought as many different wheels as possible. Claiborne Smith explained the mechanical workings of every type while Betty Smith discussed the wheels from a spinner's perspective.

Show and tell is always inspiring. A special friend of mine used lots of odds and ends to make a diagonal-knit afghan full of memories that she shared at the **Valley Spinners Guild** (Washington).

Results are in for the year-long project of the **Friendship Spinners** (Idaho). A year ago, each member was given a por-

tion of fleece to spin as fine as possible; then every participant knitted, wove, or crocheted a small lacy object. The finished items were brought to *the* meeting in brown paper bags, then were judged anonymously by all members. Prizes included "first place," "most lacey," "most colorful," "most labor-intensive," "tiniest," "most useful," and so on.

Sharing of a different sort . . . "Barbara Haight, a regular winter visitor to Hawaii, a person who has given **Hawaii Handweavers Hui** workshops on lichen dyeing, a person who has helped a number of HHH members over the years with spinning and fixing the tools of their trade, has once again returned to the Islands to thaw-out, hibernate-a-yarn, share-knowledge, and talk-story. Knitters, stitchers, tatters, ruggers, weavers, on-lookers, listeners, and conversationalists are most welcome."

From that terrific **Spinsters Almanack** (England), a couple of ideas spinners might want to try for Rock Day. How much can you weave in sixty seconds blindfolded, and how much can you spin in sixty seconds wearing garden gloves?

A follow-up on "give your fleece a haircut," from the **New York City Spinning Guild** newsletter, *YO MAAA MAAA* (referred to in *Spin·Off*, Spring 1992, page 15): One skein of trimmed fiber that was spun more finely and more loosely plied than the rest caused some potential health hazards. Apparently shorter fibers were used and there wasn't enough twist to secure them. During the knitting, tiny wool fibers escaped and were inhaled, irritating the throat. Other skeins caused no problems. Another potential problem to be aware of when using trimmed fiber is getting tiny fiber fragments under contact lenses and causing corneal abrasions.

Here are some fashion show categories for the **Nutmeg Spinners Guild** (Connecticut) that sound like fun: smallest garment from handspun, largest variety of fibers in one garment, oldest handspun garment, longest completion time for one garment, least amount of work completed to date on a project, most unusual-looking garment, largest number of colors used in a single garment, most unusual fiber used in a garment, biggest mistake made on a garment or project, oldest skeins of handspun that you still can't decide what to do with.

GUILD REGISTRY

New Listings

CALIFORNIA

Concord. Treadles to Threads, Karen McNary, 2000 Pereira Road, Martinez 94553.

ILLINOIS

Havana. Chautauqua Fiber Arts Guild, PO Box 54, Trivoli 61569.

INDIANA

Middlebury. Heritage Spinners and Weavers, Gail Monroe, 57354 Staci Lane, 46540.

KENTUCKY

Corinth. Kentucky Spinners Web, Leslie Bebensee, Route 3 Box 134, 41010.

WASHINGTON

Hoquiam. Twin Harbors Fiber Guild, Betty Downes, 41 Chickamin Avenue, 98550.

WISCONSIN

Kenosha. Chiwaukee Fiber Guild, Gail Isermann, 7419 33rd Avenue, 53142.

Changes

California. *Victor Valley.* Fantastic Fiber Folk, Michelle Martin Mueller, 6930 Jenkins Avenue, Hesperia 92345 (formerly Lucerne Valley, new contact).

Florida. *Leesburg.* Leesburg Spinners, Nory Young, PO Box 409040, 32749 (new box).

Illinois–Missouri. *Quincy.* Great River Spinners and Weavers, Beth Caldwell, R.R. 2 Box 122, Monroe City, MO 63456 (change guild name).

Indiana. *Brown County.* Brown County Spinners and Weavers Guild, Jan Halladay, 1802 Davis Drive, Franklin 46131 (new address).

New Jersey. *North New Jersey/East Pennsylvania.* North Country Spinners, PO Box 531, Hope 07844 (new address).

Oregon. *Tillamook area.* Oregon Coast Fiberartisans, Sandy Polishuk, 151 NW 15th, Rockaway Beach 97136 (new contact).

Utah. *Northern Utah.* Northern Utah Fiber Artisans, Jenny King, 2351 West 2200 South, Ogden 84401 (new contact).

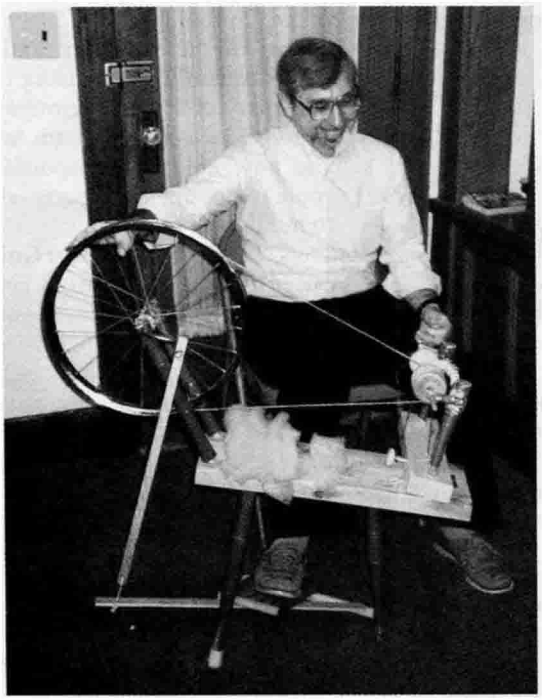
Washington. *Bellingham.* Spin Drifters, Margaret Magic, 1617 Gala Court, 98226 (replaces Whatcom Textile Guild).

Wisconsin. *Northwestern Wisconsin.* Wildwood Fibers Guild, Marta Lingkull, 642 27th Avenue, Cumberland 54829 (new address).

Wisconsin. *St. Croix Valley.* St. Croix Valley Spinners, Julie Schanon, 218 Amundson, Amery 54001 (correct last name).

England. *Nottingham.* Notts and District Guild of Handspinners, Weavers and Dyers, Glennis Eaton, 47 Church Street, Lambley NG4 4QB (new contact).

RECyCLEd WHeEl



This is Joseph Archie, Jr., a member of the Lamb to Loom Guild of Binghamton, New York, who has been spinning for three years. He enjoys making his own spinning equipment—this is his recycled wheel, which he brought to the guild's Rock Day meeting in January. Other guild members had fun figuring out what he used for parts. The elements include:

wheel bicycle wheel rim, lined with rubber
maidens and legs table legs (red)
flyer lamp harp and cup hooks
bobbin whorls toy wooden wheels

—submitted by Alison Lovejoy, Endicott, New York

ASHFORD
MADE IN NEW ZEALAND

Visit one of these dealers to test spin an Ashford spinning wheel. Write to us for a free color brochure showing all Ashford products and a complete list of all USA dealers.

CRYSTAL PALACE YARNS, 3006 San Pablo Avenue, Dept. 5, Berkeley, CA 94702

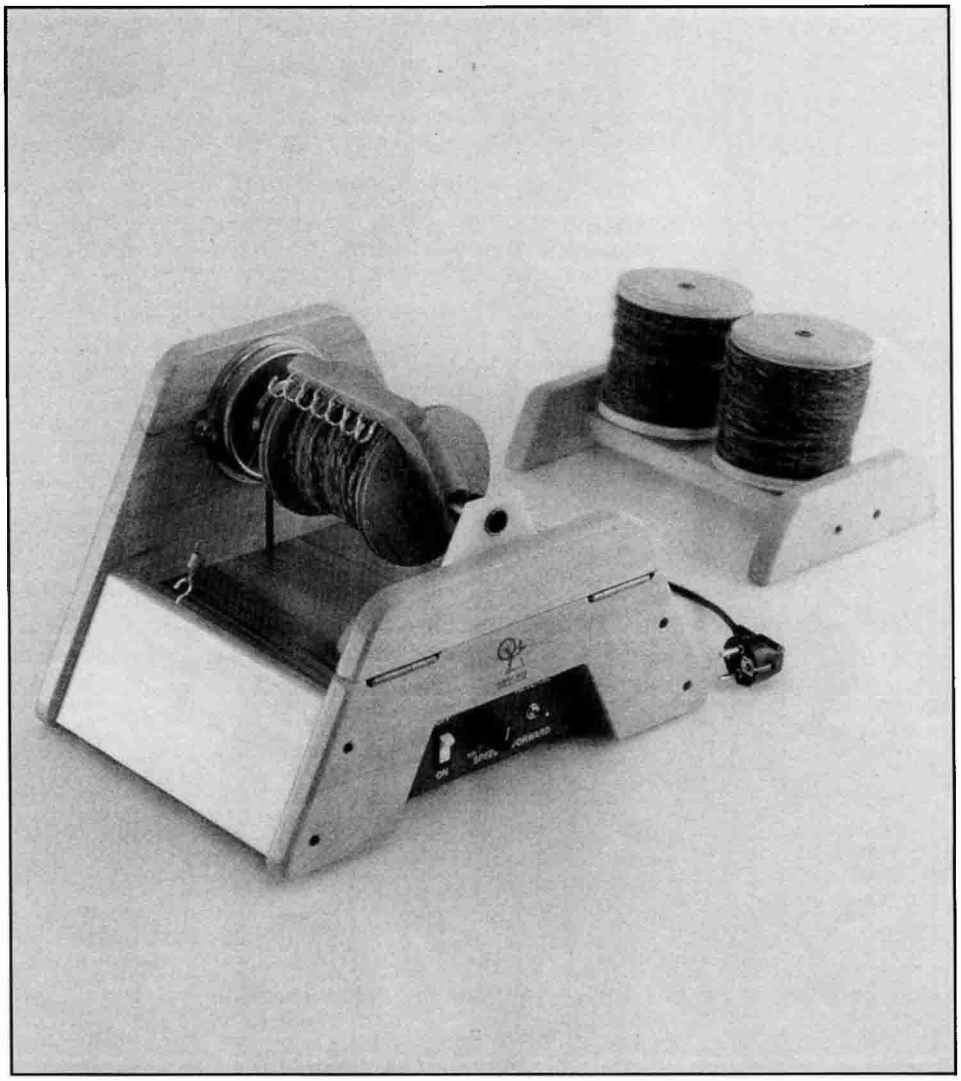
States are listed in alphabetical order. Shops are organized by zip code order within each state list.

COMING SOON!

ASHFORD ELECTRIC SPINNER

In the summer of 1992 the Ashford Electric Spinner will be available. Come try it at Convergence in Washington, DC this July or check with your Ashford dealer for more information.

The Electric Spinner will feature three 8-ounce-capacity bobbins, continuously variable flyer speeds of 0 to 1500 RPM, direct drive flyer to eliminate drive belt noise, and... for the mobile spinner: a 12 volt input to power the spinner from your car's cigarette lighter!



ALABAMA

Hollytree Heritage Shoppe
Hwy. 65, Rt. Box 570
Hollytree, AL 35751
(205) 776-2351

ALASKA

The Arc
326 W. Evergreen
Palmer, AK 99645
(907) 745-6020

Hands All Around
306 Old Steese Highway
Northgate Square
Fairbanks, AK 99701
(907) 452-2347

ARIZONA

Fibercrafts
2619 W. Bethany Home Rd.
Phoenix, AZ 85017
(602) 242-7428

Fiber Factory
150 W. Main
Mesa, AZ 85201
(602) 969-4346

CALIFORNIA

Maj-Britt Isak
7 Sweetgrass Lane
Rolling Hills Estates, CA 90274
(310) 831-6411

Arachne's Web
21500 Lassen St. #145
Chatsworth, CA 91311
(818) 882-8663

Powell Sheep Co.
1826 Keyes Rd.
Ramona, CA 92065
(619) 789-1758

CountrySpun Fibers
1731 Redwing St.
San Marcos, CA 92069
(619) 744-0306

Michelle's Spinning & Supply
6930 Jenkins Ave.
Hesperia, CA 92345
(619) 948-4637

Crafty Lady & Book Trader
28561 Highway 18
Sky Forest, CA 92385
(714) 337-1051
(714) 337-1576

Denwar Craft Studio
236 E. 16th St.
Costa Mesa, CA 92627
(714) 548-1342

Hare's to Ewe
118 S. Glassell
Orange, CA 92666
(714) 538-8160

Hare's to Ewe
1234 S. Main St.
Santa Ana, CA 92707
(714) 542-1963

B-9 Creek Ranch Co.
1344 Pine St.
Paso Robles, CA 93446
(805) 239-1001
(805) 237-0136

Handspun Gallery
315 Main St.
Half Moon Bay, CA 94019
(415) 726-2550

Custom Handweavers
75 Arbor Rd.
Menlo Park, CA 94025
(415) 325-0626

San Francisco Fiber
189 Juanita Way
San Francisco, CA 94127
(415) 665-0680

Straw Into Gold
3006 San Pablo Ave.
Berkeley, CA 94702
(415) 548-5241

MORE DEALERS NEXT PAGE

Visit one of these dealers to test spin an Ashford spinning wheel. Write to us for a free color brochure showing all Ashford products and a complete list of all USA dealers.

CRYSTAL PALACE YARNS, 3006 San Pablo Avenue, Dept. 5, Berkeley, CA 94702

States are listed in alphabetical order. Shops are organized by zip code order within each state list.

J Bar H Ranch
13185 New Ave.
San Martin, CA 95046
(408) 683-2710

Fiber Enterprises Unlimited
1001 Center St. #6
Santa Cruz, CA 95060
(408) 459-8134

Bar-B-Woolies
5308 Roeding Rd.
Hughson, CA 95326
(209) 883-0833

Mountain Lady Yarns
24125 Red Cedar Dr.
Sugarpine, CA 95346
(209) 965-4218

Yarn Barrel
441 Sebastopol Ave.
Santa Rosa, CA 95401
(707) 576-1918

Marj's Fiber Works
12695 East Hwy. 20
Clearlake Oaks, CA 95423
(707) 998-3427

Spinner's Web
14301 Arnold Dr.
Glen Ellen, CA 95442
(707) 935-7006

Frizelle-Enos
265 Petaluma Ave.
Sebastopol, CA 95472
(707) 823-6404

Camel
941 "H" Street
Arcata, CA 95521
(707) 822-4269

Alberta Borow's Elegant Goat Ranch
11525 Dry Creek Rd.
Auburn, CA 95603
(916) 823-2433

Spinner's Corner
3070 Penobscot Rd.
Cool, CA 95614
(916) 888-7503

Alden Amos/Studio Gaustad
11178 Upper Previtali Rd.
Jackson, CA 95642
(209) 223-4132

MORE DEALERS NEXT PAGE

Rumpelstiltskin
1021 "R" St.
Sacramento, CA 95814
(916) 442-9225
(916) 457-1001

From Ewe To You
224 Hartnell Ave.
Redding, CA 96002
(916) 221-4217

COLORADO

Windswept Hills
8800 East Greenland Rd.
Franktown, CO 80116
(303) 660-9682

Recycled Lamb
2060 Youngfield St.
Lakewood, CO 80215
(303) 234-9337

Weaving & Knitting Shop
1702 Walnut St.
Boulder, CO 80302
(303) 443-1133
(800) 262-5545

Pampered Lamb
29803 Paint Brush
Evergreen, CO 80439
(303) 670-0314

Bountiful
125-B Moraine Ave.
Box 1727
Estes Park, CO 80517
(303) 586-9332

CONNECTICUT

Babylon Wools
95 Day St.
Granby, CT 06035
(203) 653-5059

Teasels
Luddy House Shops
261 Broad St.
Windsor, CT 06095
(203) 688-8686

Wooland Farm
96 West Side Rd.
Goshen, CT 06756
(203) 491-4161
(203) 491-3003

GEORGIA

Clay House
770 Oglesby Bridge Rd.
Conyers, GA 30208
(404) 483-6884

Big Creek Farm
Route 5, Box 101-B
Ellijay, GA 30540
(404) 635-2034

Miss Patti's Heritage Clothing
Pearson House Main St.
Lumpkin, GA 31815
(912) 838-4741

HAWAII

Fiber Connection
608 Eaea Place
Honolulu, HI 96825
(808) 395-5417

IDAHO

Deb's Fiberworks
770 Vista
Boise, ID 83705
(208) 342-8856

ILLINOIS

Country Merchant
2007 Island Rd.
Harvard, IL 60033
(815) 943-6510

Weaving Workshop
916 W. Diversey Pkwy.
Chicago, IL 60614
(312) 929-5776

Barn To Yarn
R.R. 2, Box 42
El Paso, IL 61738
(309) 527-3693

Edna Verne Ent.
1531 Division St.
Charleston, IL 61920
(217) 345-6059

INDIANA

Spinning Wheel
130 Harrison St.
Shipshewana, IN 46565
(219) 768-7842

IOWA

Rose Tree Fiber Shop
417 Main
Ames, IA 50010
(515) 232-5336

Weaving Studio
812 S. Summit St.
Iowa City, IA 52240
(319) 338-1789

KANSAS

Yarn Barn
918 Massachusetts
Lawrence, KS 66044
(800) 468-0035

KENTUCKY

Designs in Textiles
1633 Cowling Ave.
Louisville, KY 40205
(502) 459-2650

L.S.H. Creations
1584 Wellesley Dr. S.
Lexington, KY 40513
(606) 231-0258

LOUISIANA

Diana Hardy Spinning & Weaving
3005 Common St.
Lake Charles, LA 70601
(318) 436-7260

MAINE

Shearbrooke Farm
400 Saco Rd.
Standish, ME 04084
(207) 642-3067

Mainely Fibers
P.O. Box 448
Lower Main St.
Bethel, ME 04217
(207) 824-3666

Summertree Farm
Merrill Hill Rd.
Hebron, ME 04238
(207) 966-3630

Aunt Rhodie's
22 West Main St.
Ellsworth, ME 04605
(207) 667-7463

MARYLAND

Weaver's Connection Ltd.
8600 Foundry St.
Historic Savage Mill
Savage, MD 20763
(301) 498-5976

MASSACHUSETTS

Braid Aid
466 Washington St.
Pembroke, MA 02359
(617) 826-6091

Salt Air Farm
512 Rte. 6A
Dennis, MA 02638
(508) 385-9255

MICHIGAN

Anne Ellwood Natural Classics
19231 Cass Ave.
Mt. Clemens, MI 48044
(313) 286-5709

Traditional Handcrafts, Inc.
571 Randolph St.
Northville, MI 48167
(313) 349-7509

Hillside Farm & Sheep Shed
8351 Big Lake Rd.
Clarkston, MI 48346
(313) 625-2665

Heart's Ease Farm & Fibers
3012 Sutton Rd.
Lapeer, MI 48446
(313) 797-4155

Bosley Strawberry Junction
5235 West Kochville Rd.
Saginaw, MI 48604
(517) 792-4005

Lady Peddler
142 E. State St.
Hastings, MI 49058
(616) 948-9644

MINNESOTA

Creative Fibers
5416 Penn Ave. So.
Minneapolis, MN 55419
(612) 927-8307

St. Peter Woolen Mill
101 W. Broadway
St. Peters, MN 56082
(507) 931-3734

Weaver's Cabin
20578 317th St.
Avon, MN 56310
(612) 845-7115

MISSISSIPPI

The Weaver's Collection
159 Boisdore Ave.
Pass Christian, MS 39571
(601) 452-2390
(601) 452-2842

MISSOURI

Jan Rode's Weaving Studio
Rt. 1 Box 200 Hwy. Z
Herman, MO 65041
(314) 486-5801

Carol Leigh's Specialties
7001 Hillcreek Rd.
Columbia, MO 65203
(314) 874-2233

MONTANA

Joseph's Coat
117 W. Broadway
Missoula, MT 59802
(406) 549-1419

NEBRASKA

Maureen Kobunski
505 Main St.
Kennard, NE 68034
(402) 427-7349

Plum Nelly
Rt. #1, Box 163A
Nastings, NE 68901
(402) 463-6262

NEVADA

Wooly Wonders
2320 Appaloosa Rd.
Henderson, NV 89015
(702) 564-7113

NEW HAMPSHIRE

The Fiber Studio
Foster Hill Rd., Box 637
Henniker, NH 03242
(603) 428-7830

Farm Mountain Sheep & Wool Co.
N. Wilmot Rd. (off NH Rt. 4A)
Wilmot, NH 03287
(603) 526-WOOL

NEW JERSEY

Fibre Crafts
38 Center St.
Clinton, NJ 08809
(908) 735-4469

Visit one of these dealers to test spin an Ashford spinning wheel. Write to us for a free color brochure showing all Ashford products and a complete list of all USA dealers.

CRYSTAL PALACE YARNS, 3006 San Pablo Avenue, Dept. 5, Berkeley, CA 94702

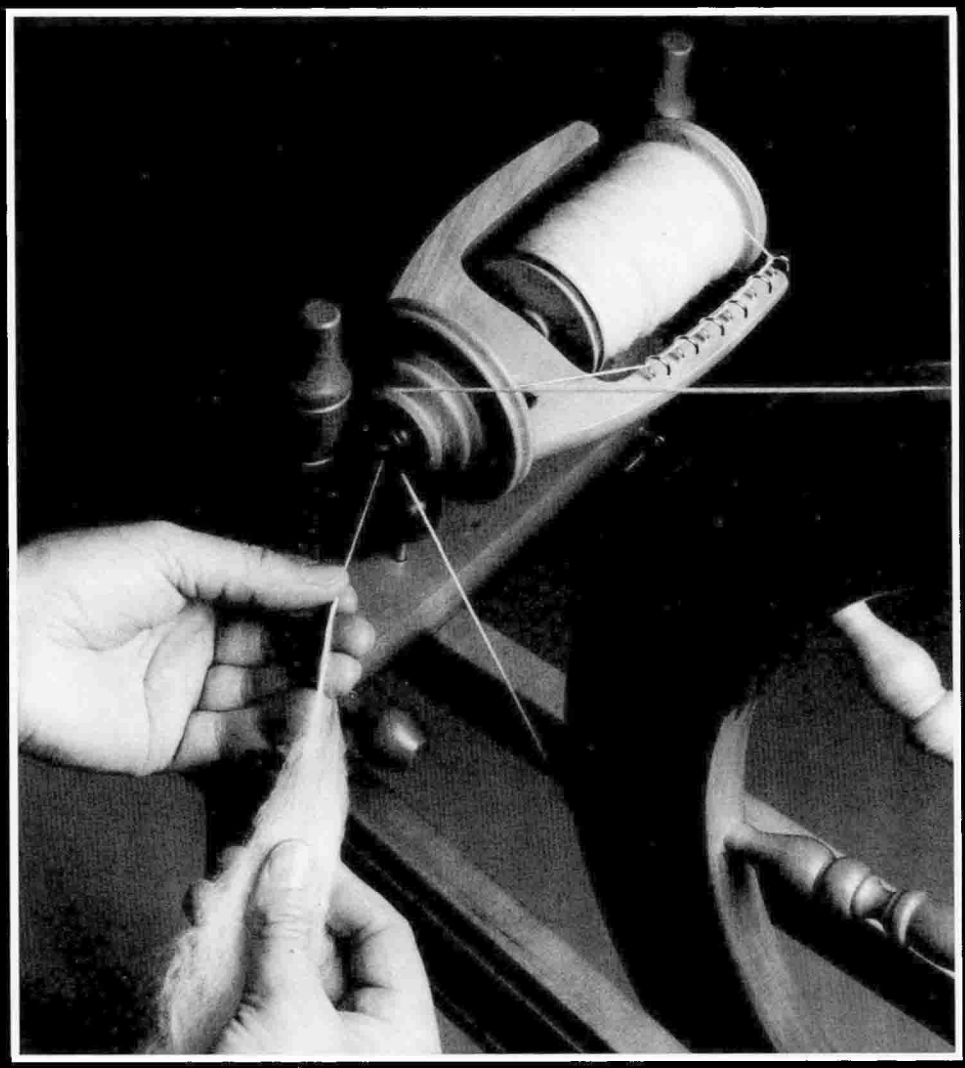
States are listed in alphabetical order. Shops are organized by zip code order within each state list.

ASHFORD
MADE IN NEW ZEALAND

HIGH-SPEED ASHFORD FLYER

This flyer is now the standard for the Traditional and Traveller spinning wheels. In addition to spinning at the two original speeds, this flyer adds a third high speed. Ratios are 6.8:1, 12.5:1, and 18.5:1. No problem to upgrade from an older style, 2-speed flyer since this flyer fits older wheels.

Ashford Double Drive owners— High-speed whorl and bobbins are available for all styles of Ashford double drive wheels (ratios: 14:1, 17:1, and 25:1).



The Spinnery
156 Hwy. 202 N.
Neshanic Sta., NJ 08853
(908) 369-3260

NEW MEXICO

Natural Twist
3058 Hwy. 47
Los Lunas, NM 87031
(505) 865-1183

Village Wools
3801 C San Mateo NE
Albuquerque, NM 87110
(505) 883-2919

NEW YORK

Wool Room
Laurelton Rd.
Mt. Kisco, NY 10549
(914) 241-1910

Little Store In The Corner
56 Gnarled Hollow Rd.
Setauket, NY 11733
(516) 689-8172

Woodside Weavers
4091 Jockey St.
Charlton, NY 12019
(518) 399-7991
(518) 399-4221

Woodland Ridge Spinning
5022 Eighmyville Road
Rhinebeck, NY 12572
(914) 876-4159

Mountain View Farm
Walker Rd. & Adams Park Ave.
Long Lake, NY 12847-0331
(518) 624-2521
(800) 724-0905

Spin 'N Knit Crafts
Factoryville Road
Crown Point, NY 12928
(518) 597-3785

River Cottage
Rt. 37 Chateaugay St.
Ft. Covington, NY 12937
(518) 358-4428

Windover Wools
401 S. Ann St.
Little Falls, NY 13365
(315) 823-0969

Foothills Farm Shop
60-½ Miner St.
Canton, NY 13617
(315) 379-9218

Helen Brown's Fiber Shop
3182 East Henrietta Rd.
Henrietta, NY 14467
(716) 334-1440

NORTH CAROLINA

Carolina Homespun
P.O. 687
4551 Pleasant Garden Rd.
Pleasant Garden, NC 27313
(919) 674-1190

Shuttles Needles & Hooks
214 E. Chatham St.
Cary, NC 27511
(919) 469-WEAV

The Weaver's Studio
103 Knox Ct.
Davidson, NC 28036
(704) 892-5666

OHIO

Little House
1927 N. Main St.
Clyde, OH 43410
(800) 554-7973

The Weaverbird
P.O. Box 142
Grafton, OH 44044
(216) 926-3551
(800) FOR-WOOL

MORE DEALERS NEXT PAGE

Visit one of these dealers to test spin an Ashford spinning wheel. Write to us for a free color brochure showing all Ashford products and a complete list of all USA dealers.

CRYSTAL PALACE YARNS, 3006 San Pablo Avenue, Dept. 5, Berkeley, CA 94702

States are listed in alphabetical order. Shops are organized by zip code order within each state list.

Gathering Wool
4114 Erie St.
Willoughby, Oh 44094
(216) 975-9002

Sally's Shop
139 College St.
Wadsworth, OH 44281
(216) 334-1996

Merrie Lamb
3811 Lincoln St. East
Canton, OH 44707
(216) 488-2544

Hamplett Cottage Farm
8128 Planktown N. Rd.
Shiloh, OH 44878
(419) 896-3531

Fiberworks
3102 Maginn Dr.
Beavercreek, OH 45434
(513) 426-5522

OKLAHOMA

Stitching Post
5928 N.W. 16
Oklahoma City, OK 73127
(405) 495-4699

Brush Creek Farm
Rt. 1, Box 235
Sand Springs, OK 74063
(918) 241-2437

Charlie's Long Horn Weavers
Rt. 2, Box 1650
Grove, OK 74344
(918) 786-6344

Canterbury Farm Ltd.
266th St. & Hwy. 75 S.
Beggs, OK 74421-9718
(918) 267-4229

OREGON

Cobbs' Web
20698 Hwy. 99-E N.E.
Aurora, OR 97002
(503) 678-5047

Springwater Farm
26040 S. Warnock Rd.
Estacada, OR 97023
(503) 630-3626

Woodland Woolworks
17340 Woodland Loop
Yamhill, OR 97148-8420
(503) 662-3641

MORE DEALERS NEXT PAGE

Creek Water Wool Works
4066 Munkers St. S.E.
Salem, OR 97301
(503) 585-3302

Soft Horizons Fibre
1157 High St.
Eugene, OR 97401
(503) 343-0651

Highland Sheep & Wool
2065 S. Myrtle Rd.
Myrtle Creek, OR 97457
(503) 863-7587

Web-ster's: Handspinners, Weavers, & Knitters
11 North Main St.
Ashland, OR 97520
(503) 482-9801

The Woodside Weaver
60443 Woodside Loop
Bend, OR 97702
(503) 389-6473

Wooly & Wilds
HC 71-125 Radar Hill Rd.
Burns, OR 97720
(503) 573-4203

From the Farm
Rt. 2, Box 116
Pendleton, OR 97801
(503) 443-3149

PENNSYLVANIA

Knots & Treadles
103 E. Pittsburgh St.
Delmont, PA 15626-0394
(412) 468-4265

Silverbrook Farms
Rt. 1, Box 33-A
Rochester Mills, PA 15771
(412) 286-3317

Autumn House Farm
Rd. #1, Box 105
Rochester Mills, PA 15771
(412) 286-9596

Otter Creek Store
106 South Diamond
Mercer, PA 16137
(412) 662-2830

Mannings
1132 Green Ridge Rd.
East Berlin, PA 17316
(717) 624-2223
(800) 233-7166

Althouse's Sewing Center
Rd #1, Box 214
Fogelsville, PA 18051
(215) 285-6597

Jeanne Kirkpatrick
37 Prospect St., Box 22
Montrose, PA 18801
(717) 278-1722

Carversville Fiber Studio
Carversville & Aquetong Rds.
Carversville, PA 18913
(215) 297-5405
(215) 297-0238

Ramsden Farm
RR 4, Box 4000
Birdsboro, PA 19508
(215) 582-6861

RHODE ISLAND

Anna's Originals
7 Brayton St.
E. Greenwich, RI 02818
(401) 884-2220

Slater Mill Museum Shop
67 Roosevelt Ave.
Pawtucket, RI 02862
(401) 725-8639

SOUTH CAROLINA

Weaver's Knot
1803 Augusta St.
Greenville, SC 29605
(803) 235-7747

SOUTH DAKOTA

Shyrlee Roling Handweaving
RR #3, Box 30
Madison, SD 57042
(605) 256-3701

TEXAS

Woolenworks
103 S. Dallas Ave.
Lancaster, TX 75146
(214) 218-WOOL

Original Webs
414 Stratford #13
Houston, TX 77006
(713) 522-4702
(713) 522-3180

Suzanne Roddy, Handweaver
1519 Memorial Dr.
Conroe, TX 77304
(409) 756-1719

Creek Bend Wool Ranch
605 Lincoln Street
El Campo, TX 77437
(409) 543-4923

Upstairs Studio
304 W. Main
Laporte, TX 77571
(713) 470-0108

Fay Drozd
305 Indian Creek Rd.
Ingram, TX 78025
(512) 367-2567

Handwovens by Ruffin
Exit 220, IH-35
Buda, TX 78610
(512) 295-SPIN

Hill Country Weavers
918 W. 12th St.
Austin, TX 78703
(512) 474-6773

Beck's Warp 'n Weave
2815-C 34th St.
Lubbock, TX 79410-3523
(806) 799-0151

UTAH

Salt Lake Weaver's Store
1227 E. 3300 So. at Center 33
Salt Lake City, UT 84106
(801) 486-1610

VERMONT

Green River Homespun
Jacksonville Stage Rd.
Guilford, VT 05301
(802) 257-7275

VIRGINIA

Misty Mountain Farm
Rt. 1, Box 341
Delaplane, VA 22025
(703) 364-1947

River Farm
Route 1, Box 401
Timberville, VA 22853
(800) USA-WOOL
(703) 896-9931

Stony Mountain Fibers
104 Old Preston Ave.
Charlottesville, VA 22901
(804) 295-2008

The J. & L. Studio
790 Poquoson Ave. (rear)
Poquoson, VA 23662
(804) 868-6364

The Wool & Wabbit Spinning Farm
Rt. 1, Box 778-A
Bassett, VA 24055
(703) 629-4372

Misty Mountain Fiber Workshop
Rt. 1, Box 161-C
New Castle, VA 24127
(703) 544-7134

Ye Olde Upholstry Shoppe
Williamsburg Square
619 Greenville Ave.
Staunton, VA 24401
(703) 885-5985

WASHINGTON

Weaving Works
4717 Brooklyn Ave. NE
Seattle, WA 98105
(206) 524-1221

Cowell Enterprises
11901-26th Place S.W.
Seattle, WA 98146
(206) 242-3692

Tapestry
301 W. Holly St.
Bay Street Village
Bellingham, WA 98225
(206) 733-7498

Wool Station
4218 136th St. N.E.
Marysville, WA 98270
(206) 653-2604

Victoria's Attic
18846B Front St.
Poulsbo, WA 98370
(206) 779-3666
(206) 830-4245

Wool Shed Double 6 Farm
8523 N.W. Anderson Hill Rd.
Silverdale, WA 98383
(206) 692-2661

Looms & Lessons of Olympia
209 E. 5th
Olympia, WA 98501
(206) 352-9118
(206) 352-5906

Windy Acres Weaving
9546 Glory Dr. SE
Olympia, WA 98503
(206) 491-2177

Castle Wheel
29911 48th Ave. South
Roy, WA 98580
(206) 843-2920

Spin Away Your Troubles
6204 N.E. Hwy. 99, Ste. B
Vancouver, WA 98665
(206) 693-5519

Weft & Wheel Mercantile
E 10211 Connor Rd.
Valleyford, WA 99036
(509) 448-8672

WISCONSIN

Janis Monsen Knits
N56W16421 Silver Spring Dr.
Menomonee Falls, WI 53051
(414) 252-3339

The Wool Works
1812 N. Farwell Ave.
Milwaukee, WI 53202
(414) 278-8838

Weaving Workshop
920 E. Johnson
Madison, WI 53703
(608) 255-1066

Susan's Fiber Shop
N. 250 Hwy. A
Columbus, WI 53925
(414) 623-4237

Vee's Fiber Studio
W. 5922 Cth "OS"
Onalaska, WI 54650
(608) 783-3081

Granite Creek Farm
642 27th Ave.
Cumberland, WI 54829
(715) 822-8766

For over half a century—
The World's Leading Manufacturer of
Spinning Wheels—**ASHFORD HANDICRAFTS**

ASHFORD
MADE IN NEW ZEALAND

sheet of reproducible knitting graph paper so you can begin to plot your own motifs.

This comprehensive sourcebook is packed with features that make it a valuable addition to a knitter's collection: basic sweater instructions in a variety of gauges and sizes, a wealth of pattern ideas, tips and techniques for professional finish, and an emphasis on creative exploration.

—Julie Mueller

Folk Knits: Traditional Patterns from around the World

Melinda Coss

North Pomfret, Vermont: Trafalgar Square Publishing, 1990. Hardbound. 112 pages. $24.95. ISBN 0-943955-43-2.

Imagery from textiles, pottery, and carpets inspired British designer Melinda Coss to write her eighth book on knitting. Artfully produced with handsome photography, this book contains twenty-two sweater designs with intarsia and jacquard motifs. The sources of the designs range from primitive bark paintings of Australian aborigines to Nigerian embroideries, and from Turkish carpets to Chilkat blankets.

The folk motifs are usually sprinkled over the fabric, but sometimes they follow the shape of the neck or an edge—as in the Cleopatra sweater, which has beads knitted into the sweater body and sewn to the round yoke to simulate the heavy, jeweled collars worn by early Egyptians. The Minnehaha sweater shows textural contrast, with cowrie shell buttons and cabled patterning embellished with short strands of multicolored beads, like those on beaded moccasins. The Gujarati sweater, inspired by appliqués from India, has embroidery around figures of elephants, imitating coarsely stitched appliqué.

Imaginative details in collars, cuffs, and ribbing enliven the simple sweater shapes. A black-and-white striped ribbing sets off a crunchy white cotton bouclé hieroglyphic sweater with scattered motifs in pink, blue, and green outlined in black. A summer jacket and leggings in cotton is sprinkled with paisley Tree of Life motifs, inspired by a West Indian theater costume designed by Erté. Larger-than-life geisha, based on a famous Japanese print, appear on a long, full, cocoon-like mohair sweater.

Often the sweater patterns are given in only one size (up to 36" or 38" bust), but this should not be a problem because of the graphs and simple shapes. As the preface suggests, this book is not only a pattern book; it provides a model for designing from cultural artifacts. With intriguing details and beautiful colors and textures, these sweaters will inspire your exploration of folk motifs as a design resource.

—Jean Scorgie

The Craft of Handspinning

Eileen Chadwick

London: B. T. Batsford, 1989 (reprint). Softbound. 168 pages. $24.95. ISBN 0-7134-1012-4.

Originally published in Great Britain in 1980, *The Craft of Handspinning* continues to be a good source of information. The presentation of this material is unusual, however, and I find it somewhat frustrating. In the introduction, the author states that she has chosen to present only the most basic of directions in the first chapter to get the novice started, and then to repeat the same information in greater depth several times in subsequent chapters. The book ends with the history of spinning and a chapter on equipment.

When I was learning to spin, I think I would have preferred to have been given more thorough information initially, selecting for myself what was pertinent to my level of understanding, instead of being left confused and having to hunt through the book for further explanations.

I also think that a few important points have been treated too lightly or ignored. There is only one photograph with parts of the wheel indicated, and the wheel shown is a rather unique double-drive Norwegian wheel. There are no illustrations of a single-drive wheel. In fact, there is no mention anywhere in the book of a single band, bobbin-driven wheel, and a number of beginning spinners these days find themselves with this arrangement.

The author leaves until the end of the book a few paragraphs on the maintenance of spinning wheels. There is not nearly enough space devoted to instruction about twist requirements for different yarns and for different fibers. Nor is the insertion of twist during plying covered adequately, and no mention is made of any attempt to produce a balanced yarn—perhaps this is why the author recommends weighting all washed skeins to remove the kinks.

These points aside, there is a lot that is very good in the book. The author provides thorough explanations of fleece preparation for both woolen and worsted yarns, as well as the associated spinning techniques. All this is accompanied by excellent photographs. Not all the sheep breeds mentioned in this book will be familiar, as they are all exclusively from the British Isles and some are rare breeds, but her wool classification chart contains useful information. The chapters on silk, flax, cotton, and other fibers are well presented and are illustrated with a good selection of photographs. The coverage of the animal (hair) fibers is somewhat scant, if not questionable in places.

A novice spinner would certainly find this book useful, as long as another source of information is available to fill in the gaps and to dispel a few myths that the author perpetuates: she instructs readers to mark one carder "right" and one "left" and never mix them up; and says that worsted spinning is only done to the left of the wheel. An experienced spinner probably would not find anything new here, although it could be a useful reference book in anyone's library.

—Maggie Glossop

Publication noted

The Guide to Art and Craft Workshops. *ShawGuides, 625 Biltmore Way, Coral Gables, Florida 33134. (305) 446-8888. $18.95 ppd. ISBN 0-945834-11-X.* Wow! What a wonderful directory of workshops, residencies, and retreats—both in the fiber arts and in other interesting topics. You can browse by geography, subject, and/or suitability for children and families. Plan your vacations for years to come . . . or take a vicarious break, dreaming in the middle of a frustrating day. Listings are thorough enough to whet your appetite. ❖

Sturdy and lustrous, English Leicester takes colors in jewel-like brilliance and has enough character to define a knitted stitch pattern or woven design. The numbers refer to the sample notes.

SHINY AND STRONG

English Leicester

by Jane Fournier

ENGLISH LEICESTER SHEEP originated in England, where they are known as *Leicester Longwool.* The breed has been around for a very long time, and was initially raised for its large size and heavy fleece.

Starting about 1760, animal genetics pioneer Robert Bakewell made significant changes to and improvements in the Leicester breed through careful breeding and selection. He produced a Leicester sheep that was fast to mature, medium sized with a compact conformation, and had a valuable carcass as well as a good fleece.

The improved Leicester became a very popular breed for developing the beneficial characteristics of other longwool breeds and cross breeds. The irony of the Leicester today is that although it has been used extensively to enhance other breeds, pure English Leicesters have become relatively uncommon. However, because of their earlier popularity, they are still found in many parts of the world, including Australia, New Zealand, the United Kingdom, and the United States.

English Leicester sheep were first introduced to the United States some time before the Revolutionary War. The exact date is not known, but records show that George Washington used English Leicester rams to improve his flock of about eight hundred sheep at Mount Vernon.

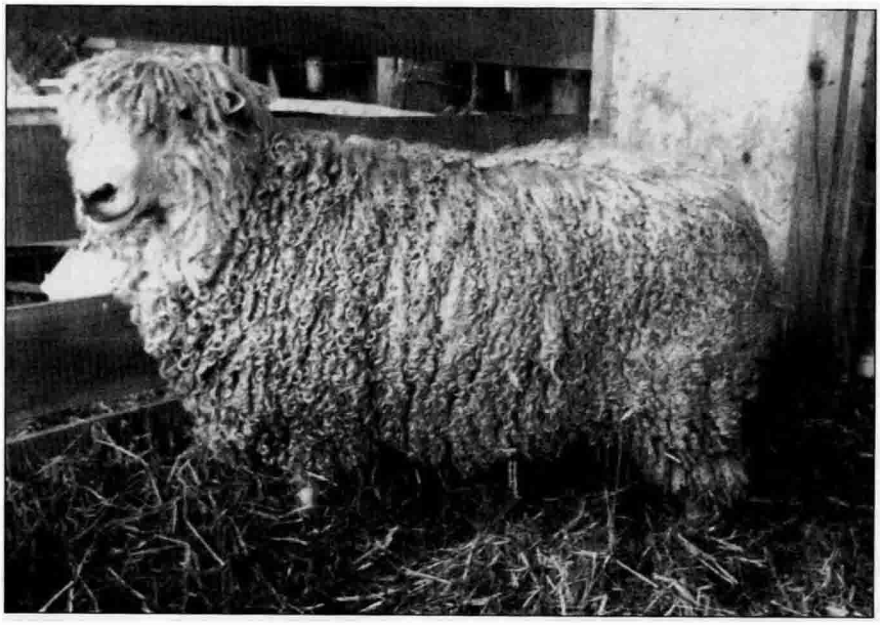
The English Leicester is a medium-sized sheep with a long, heavy, lustrous fleece. The legs and face are white and there is usually some wool on the forehead and cheeks. Rams weigh between 225 and 250 pounds, and ewes between 175 and 225 pounds. Both sexes are hornless. The English Leicester is a dual purpose sheep and is often used for producing crossbred ewes and rams.

Fleece

Fleeces are heavy, usually weighing between 11 and 14 pounds with a staple length between 7 and 9 inches. The wool is fairly coarse, with a count of 40s to 46s and a fiber diameter of between 36 and 40 microns. The fleece falls into small tight locks with a well-developed, curly crimp. The wool is very similar to Lincoln fleece, but usually has slightly finer, smaller locks. Commercial uses for English Leicester wool include rugs, carpets, braids, and upholstery fabrics.

Working with English Leicester

English Leicester fleece is long, lustrous, and very strong. Despite its silky appearance, the fiber is quite coarse and the handle can be hairier than one might expect. When selecting a fleece, look for luster and crimp that are consistent over the length of the staple, and locks that fall freely without any matting. Suitable preparation methods include flick carding, combing, and drum carding. Hand carding is also possible, but because of the very long fibers the traditional rolag is apt to tangle badly while it is being drafted. The long, curly crimp enhances luster but lends very little loft to the wool.



English Leicester, or Leicester Longwool, sheep have been around for longer than many breeds. One animal can produce a lot of long-stapled fleece. Photograph by Daniel Ellison.

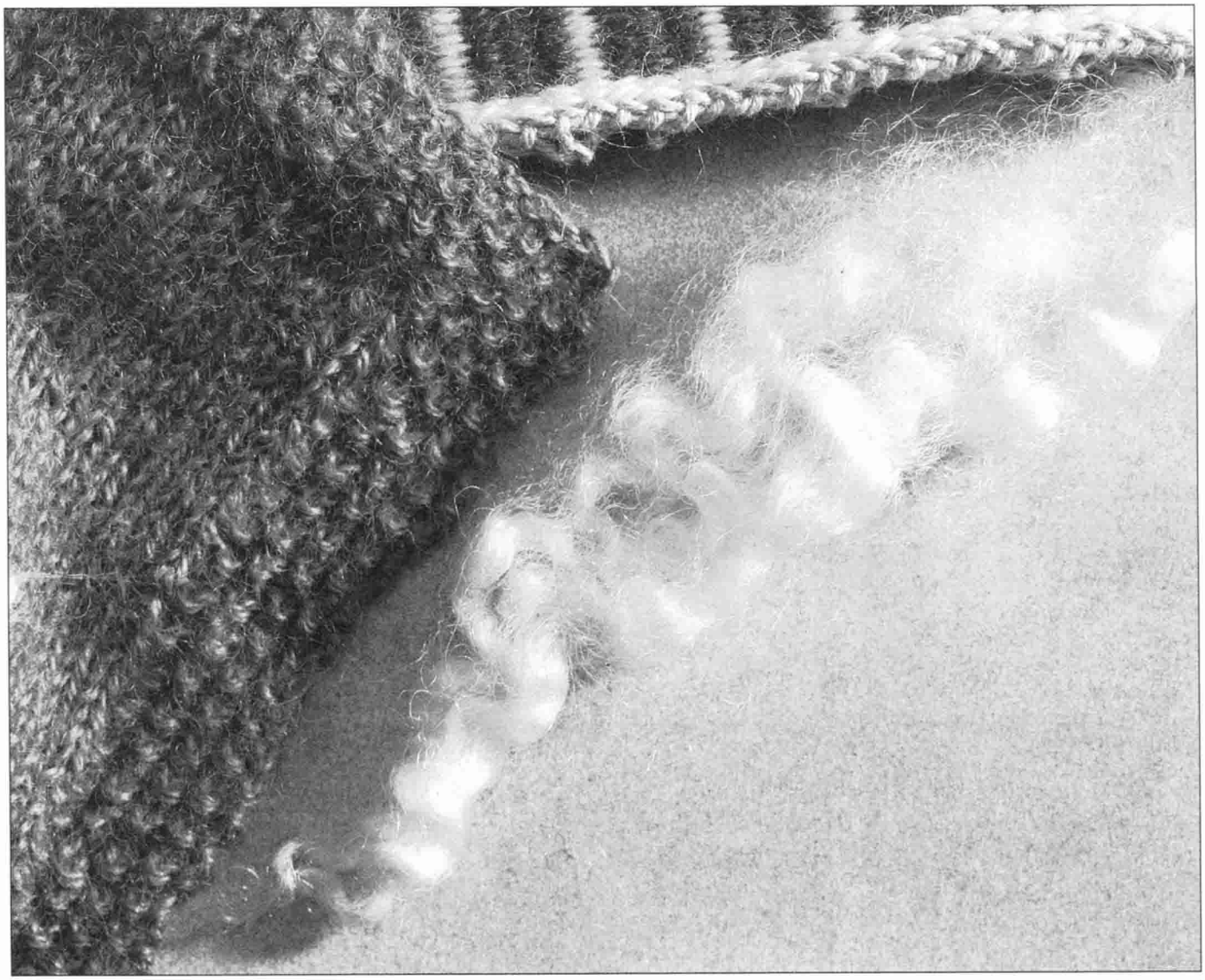
Like yarns made from other longwools, English Leicester yarns tend to be heavy for their bulk and not very elastic. The fleece generally dyes well, and the natural luster gives colors great depth and life.

Sample 1 capitalizes on all the virtues of English Leicester wool. The smooth surface of the yarn enhances the luster of the fleece, which in turn shows off the dyed colors to advantage. From a practical point of view, the fiber's strength and length make this a rug yarn which will wear as well as it looks. Like most wools with a long, wavy crimp, this fleece does not have much loft. To compensate for this lack of loft, I spun a three-ply to make a full, round yarn which would give the best warp coverage. I used Krokbragd in this sample, but the yarn would be suitable for almost any rug technique.

Sample 2 utilizes many of these same properties in a yarn well suited to the making of firm, hard-wearing braids and tapes, such as might be used on rugs and furnishings or as a finish for seams, edges, and facings on outer garments.

It's a challenge to spin a garment yarn that isn't heavy and hairy from a long, crimped fleece of this type. Sample 3 demonstrates one way of maximizing the air and bounce in a yarn. Because I spun with very light tension and with the fibers jumbled and loose in the drafting zone, this yarn remained fluffy and light. The very long fibers ensure a robust yarn, even though the singles are softly twisted. I chose the finest portion of the fleece for this particular yarn, but I still would never use it for a next-to-the-skin garment. However, it will succeed very well in either knitted or woven outer garments.

A lock at full size shows well-defined crimp and luster.



Yarn Details and Fabric Designs

Sample 1

Yarn: I drum carded the fleece for this yarn, recarding and mixing the batts three times in all. The yarn is a balanced, even three-ply spun with a short backwards draw. I used Lanaset dyes to color the yarn after spinning. Approximately 7 wraps per inch, 31° angle of twist, 320 yards per pound.

Swatch: The sample is woven in Krokbragd on an 8/5 linen rug warp sett at 5 ends per inch. The pattern evolved from random changes in the order of the three colors used at any one time. The raw edges of the weaving were secured with a Philippine edge.

Sample 2

Yarn: I used Russian paddle combs to prepare the fleece, and I spun from the roving with a short draw to keep the yarn as smooth as possible. The colored yarns were spun from dyed, combed fleece. The finished yarn is a balanced two-ply. Approximately 15 wraps per inch, 26° angle of twist, 1060 yards per pound.

Swatch: The draft for the cardwoven braid is shown at right. I used the same yarn for warp and weft.

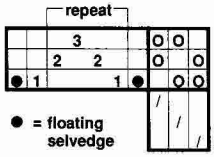
Sample 3

Yarn: The fleece was flick carded, and the singles were spun from the side of the locks in a short/long draw. The secret to keeping the maximum amount of air and fluff in the yarn was to allow the twist to enter the drafted fibers when they were not under any tension. To do this, I maintained a drafting zone longer than the fibers themselves, kept a very light take-up on the spinning wheel, and handled the yarn as little as possible while it was being spun. An even two-ply gave a balanced yarn. Approximately 8 wraps per inch, 23° angle of twist, 780 yards per pound.

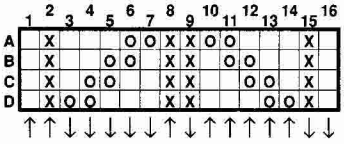
Swatch: The sample was knitted on size 5 (3.75 mm) needles in stockinette stitch. The iris motif was adapted from a pattern in *The Sasha Kagan Sweater Book* (New York: Ballantine, 1985). ❖

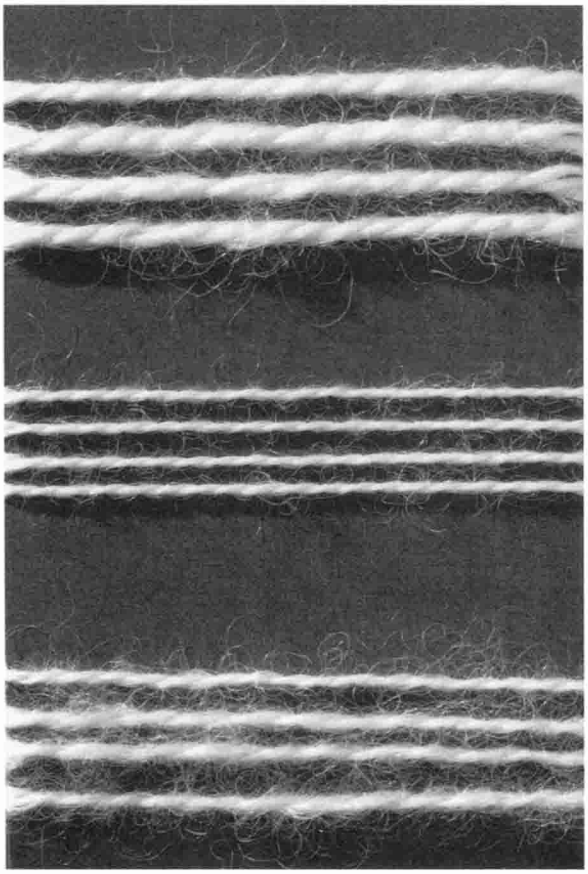
Jane Fournier, of Washington, D.C., first came to our attention through the incredible lace samples she submitted to the Handweavers Guild of America for the Certificate of Excellence in Handspinning. Not only is she a great spinner; she's one of those people we look for excuses to visit with.

Draft for sample 1 (Krokbragd)



Draft for sample 2 (cardwoven braid)





YARNS SHOWN AT ACTUAL SIZE

1. Drum-carded fiber spun into a three-ply yarn for rug weaving.

2. Prepared with paddle combs and spun for smoothness, this sturdy two-ply became a card-woven band.

3. For knitting, the flick-carded wool was spun lightly and then plied.

Schacht Spindle Company products are available through a network of dealers. The knowledge they have to share with you and the services they have to offer make them a great place to purchase our spinning wheels and spinning supplies. Stop by and visit them and pick up your copy of our beautiful full color catalog. Here is a list of some of our dealers. Write to us for the names of other dealers near you.

ALASKA

Palmer
The Arc
326 W. Evergreen
(908) 745-6020

ARIZONA

Mesa
The Fiber Factory
150 W. Main
(602) 969-4346

CALIFORNIA

Auburn
Bert Borow's Elegant
Goat Ranch
11525 Dry Creek Rd.
(916) 823-2433

Canyon Country
Green Valley Weavers Supply
16060 Comet Way
(Off Sand Canyon)
(805) 250-1153

Sacramento
Rumpelstiltskin
1021 R Street
(916) 442-9225

Santa Cruz
Fiber Enterprises Unltd.
1001 Center St., #6
(408) 459-8134

Windsor
Woolen Treasures
2776 Silk Road
(707) 838-4058

COLORADO

Berthoud
Willow Basket Sheep & Wool
812 East Highway 56
(303) 532-4264

Boulder
The Weaving & Knitting Shop
1702 Walnut St.
(303) 443-1133
(800) 262-5545

Colorado Springs
Just Dyelightful Handwovens
2629 West Colorado Ave.
(719) 636-0059

Conifer
The Mountain Weavery
10875 Highway 285
(303) 838-8722

Estes Park
Bountiful
125-B Moraine, Box 1727
(303) 586-9332

Lakewood
The Recycled Lamb
2060 Youngfield St.
(303) 234-9337

GEORGIA

Ellijay
Big Creek Farm
Rte 5, Box 101-B
(404) 635-2034

Marietta
Leafwood Studio
3007 Leafwood Dr.
(404) 952-0694

IDAHO

Boise
Deb's Fiberworks
770 Vista
(208) 342-8856

INDIANA

Shipshewana
Shipshewana Spinning
Wheel Co.
130 Harrison Street
(219) 768-7842

IOWA

Ames
The Rose Tree Fiber Shop
417 Main Street
(515) 232-5336

Iowa City
The Weaving Studio
812 S. Summit
(319) 338-1789

KENTUCKY

Corinth 41010
Kokovoko Breeding Farm
Rte 3, Box 134
(606) 234-5707

Lexington
Kentucky Looms &
Wheels Outlet
953 Holly Springs Dr.
(606) 278-7956

LOUISIANA

Chalmette
Rose Line Inc.,
Weaving Studio
2906 Fenelon St.
(504) 279-4066

MAINE

Bath
Halcyon Yarn
12 School St.
(800) 341-0282
(800) 439-7909 ME

MARYLAND

Baltimore
The Weaver's Place
75 Mellor Avenue
(410) 788-7262

Frederick
Forestheart Studio
21 South Carroll St.
(301) 695-4815

Oakland
Lenora's Fabric and Yarn
Rte 1, Box 880
(301) 334-2783

MASSACHUSETTS

Harvard
Fiber Loft/Bare Hill Studios
Rte 111, Post Office Bldg.
(508) 456-8669

Lexington
A Yarn Express
P.O. Box 461
(617) 863-1449

MICHIGAN

Grand Rapids
Threadbender Yarn Shop
2767 44th St. S.W.
(616) 531-6641

Northville
Traditional Handcrafts
571 Randolph Street
(313) 349-7509

Rockford
The Weaver's Shop & Yarn Co.
39 Courtland
(616) 866-9529
(800) 488-9276

MINNESOTA

Avon
The Weaver's Cabin
20578 317th Street
(612) 845-7115

Minneapolis
Creative Fibers
5416 Penn Ave. S.
(612) 927-8307

MISSISSIPPI

Mc Comb
D & S Weaving Supplies
301 Presley Blvd.
(601) 249-0857

MISSOURI

Glen Allen
Shepherd in the Glen
Rte 1, Box 78
(314) 495-2249

NEW HAMPSHIRE

Henniker
The Fiber Studio
9 Foster Hill Rd.
(603) 428-7830

NEW JERSEY

Clinton
Fibre Crafts
38 Center Street
(908) 735-4469

Neshanic Station
The Spinnery
156 Highway 202 North
(908) 369-3260

NEW MEXICO

Taos
La Lana Wools
136 Paseo Norte
(505) 758-9631

NEW YORK

Charlton (Ballston Lake)
Woodside Weavers
4091 Jockey Street
(518) 399-7991

Henrietta
Helen Brown's Fiber Shop
3182 East Henrietta Rd.
(716) 334-1440

Mt. Kisco
The Wool Room
Laurelton Rd.
(914) 241-1910

Rhinebeck
Woodland Ridge
502 Eighmyville Rd.
(914) 876-4159

NORTH CAROLINA

Cary
Shuttles, Needles & Hooks
214 East Chatham Street
(919) 469-WEAV

Greensboro Area
Carolina Homespun
4551 Pleasant Garden Rd
(919) 674-1190

Triangle Area
Town Square Handcrafts
Pittsboro
(919) 542-5654

OHIO

Canton
Merrie Lamb
3811 East Lincoln St.
(216)488-2544

Clyde
Little House
1927 N. Main St.
(419) 547-9210

Lakewood
Homespun Shed
15618 Detroit Avenue
(216) 521-1178

OREGON

Ashland
The Web.sters: Handspinners,
Weavers & Knitters
10 Guanajuato Way
(503) 482-9801

Portland
Northwest Wools
3524 SW Troy St.
(503) 244-5024

Yamhill
Woodland Woolworks
17340 NE Woodland Loop Rd.
(503) 662-3641

PENNSYLVANIA

East Berlin
The Mannings
P.O. Box 687
1132 Green Ridge Rd.
(800) 233-7166

Mercer
The Otter Creek Store
106 S. Diamond St.
(412) 662-2830

North East
The Weaver's Shop-
Threads & Thrums
10675 West Law Road
(814) 725-5377

Smicksburg
The Weaver-Artisan's Outlet
P.O. Box 80
Next to Post Office
(814) 257-8891

RHODE ISLAND

Pawtucket
Slater Mill Museum Shop
67 Pawtucket Ave.
(401) 725-8638

SOUTH CAROLINA

Greenville
The Weaver's Knot
1803 Augusta St.
(803) 235-7747

TEXAS

Austin
Hill Country Weavers
918 W. 12th
(512) 474-6773

Buda
Handwovens by Ruffin
IH-35, Exit 220
P.O. Box 100
(512) 295-SPIN

Conroe
Suzanne Roddy, Handweaver
1519 Memorial Drive
(409) 756-1719

Lancaster
Woolenworks
103 S. Dallas Ave.
(214) 218-WOOL

Lubbock
Beck's Warp 'N Weave
2815 34th St.
(806) 799-0151

UTAH

Salt Lake City
Salt Lake Weaver's Store
1227 East 3300 South
(801) 486-1610

VERMONT

Bridport
Wooly Hill Farm
RD 1 Box 366
(802) 758-2284

Rutland
Truly Unique
Rt 4 East
(802) 773-7742

South Burlington
Knitters Knook
26 Charles St.
(802) 862-4915

VIRGINIA

New Castle
Misty Mountain Fiber
Workshop
Rte 1, Box 161-C
(703) 544-7341

Poquoson
The J & L Studio
790 Poquoson Ave-Rear
(804) 868-6364

Timberville
The River Farm
Rte 1, Box 401
(703) 896-9931

WASHINGTON

Marysville
The Wool Station
P.O. Box 1322
4218-136th St. NE
(206) 653-2604

Seattle
The Weaving Works, Inc.
4717 Brooklyn NE
(206) 524-1221

WISCONSIN

Columbus
Susan's Fiber Shop
N 250 Highway A
(414) 623-4237

Green Bay
Fairhair
719 Mather St.
(414) 435-9858

Onalaska
Vee's Fiber Studio
W5922 CTH OS
(608) 783-3081

CANADA

ALBERTA

Calgary
The Fiber Hut
2316 Crestwood Rd. S.E.
(403) 279-2658

BRITISH COLUMBIA

Richmond
Community Craft Cottage
7577 Elmbridge Way
(604) 278-0313

ONTARIO

Chatsworth
Wood and Fibre Studio
RR #3, Lot 1, Cone 3
(519) 794-3593

Mount Albert
Gemini Fibres
RR #1
5062 Mt. Albert Rd.
(416) 473-1033

YUKON

Whitehorse
Down North
21 Boxwood Cr.
(403) 633-2530

JAPAN

Osaka
Oribito Weaving Shop
3283 Fukaisawamachi
Sakai-shi
722-78-5231

KOREA

Seoul
L.D.H. Handweaving Loom
C.P.O. Box 6718
02-779-1894

UNITED KINGDOM

Cumbria
Fibrecrafts at Barnhowe
Elterwater
Ambleside
(09667) 346

Surrey
Fibrecrafts, Style Cottage
Lower Eashing
Godalming
483-421853

GERMANY

Friedrich Traub KG
Schorndorfer Str. 18
W-7065 Winterbach
(07181) 77055
FAX (07181) 42445

MATCHLESS

The new Schacht Spinning Wheel is the most responsive spinning wheel available today. Whether you're an experienced handspinner or an eager novice, you'll appreciate this wheel's matchless capabilities.

ONE TO GROW ON.

Here's a tool as versatile as you demand. The Schacht Spinning Wheel comes with two flyer whorls; one with drive ratios of 9:1 and 11:1 for spinning medium weight yarns; the other with ratios of 13:1 and 16:1 for spinning fine wool yarns, silk and cotton. Two other flyer whorls are available as options; a slow speed whorl with ratios of 6:1 and 7 1/2:1 and a high speed whorl with ratios of 17 1/2:1 and 19 1/2:1. Want even greater spinning possibilities? Simply attach the Scotch Tension that comes with the wheel.

The 19 1/2" drive wheel and the flyer shaft are supported by self-aligning bronze bearings for precise action. Each flyer is balanced and bobbins and flyer whorls are trued on center for long and superior service.

And the quick-attach flyer whorls make bobbin changing a breeze. The tension controls for the drive band and the Scotch Tension are conveniently positioned for easy use. The treadling of the wheel is light and comfortable and the generously sized treadle allows you to use either foot or both if you choose.

The Schacht Spinning Wheel is highly portable. Its compact shape along with its own carrying strap makes it handy to take anywhere. Or you can get our optional Cart which is the neatest way ever to travel with your wheel.

PERFORMANCE BY DESIGN.

You will find the Schacht Spinning Wheel's simple contemporary styling a skillful blend of design and function. Made of laminated maple and walnut, the wheel uses hardware specifically chosen to enhance aesthetics and performance. It's built with great respect for the requirements you as a spinner have. The wheel comes assembled. Just pop the treadle in place, put the flyer on and you're ready to spin.

OUR KATE'S NOT LAZY!

The wheel comes with a Kate and four bobbins. The industrious Kate has a special tensioning feature for the smooth, even release of your yarn during plying.

See the Schacht Spinning Wheel at your local spinning supply shop. Our new 28 page full-color catalog of weaving and spinning equipment which includes a free color print of our sheep logo is available for $2.00.

Schacht Spindle Co., Inc. 6101 Ben Place, Boulder, Co. 80301 USA

SCHACHT SPINDLE CO.

News

Fibernet, the bulletin board for fiber folks run by Ron Parker out of Henning, Minnesota, has made several changes in the interest of making the service easier and cheaper to use.

First, there have been hardware improvements. Fibernet is now handled by a faster computer, which Ron says "results in remarkable cuts in time to do almost everything." In addition, telephone line noise problems experienced by some users have been practically eliminated. There's a 9600-baud modem available, and as soon as there is demand for that speed it will be added.

Second, the compressed-mail option can now be used by IBM-compatibles, Macs, and Amigas.

Third, they're working on setting up satellite bulletin boards around the country which will ultimately bring Fibernet within local–phone-call reach. A satellite has already been set up in Oakland, California. It's called The Kitchen Table, and the system operator is Rachel Holmen, who is a weaver. The phone is 510-547-7747; settings are 8N1, 300–2400 baud. Fibernet is Conference 21. ❖

Two sets of talents come together in

The Family Blanket

by David and Jude Daurelle

Jude's story

At some time in this life, every spinner must dream of the joy it would bring to have one's own "personal" weaver. I did. I dreamed of the projects I would spin, fat yarns, lumpy yarns, worsted yarns extended inch by inch at the wheel, and bobbins full of soft, lofty, woolen yarns for weft. I dreamed of exquisite natural-dyed rugs, warm blankets, and a wool/silk blend coat.

Being a "doer" at heart, my dreams were soon transformed from spinning to finished yarns. Before long, it was simply amazing how much yarn burgeoned forth from closets and drawers. I was even collecting commercial yarns, and at one point I dyed many pounds of them in my indigo vat.

Occasionally, I managed to knit or weave a project or two, but mostly I spun my wheels (I have two of them, and several spindles). Brownies and pixies weren't likely to appear and clean up the yarns in my life, but, "Oh, a weaver would be nice."

In September 1986, I purchased three Rambouillet fleeces (one each of black, gray/brown, and white). I washed, sorted, and partially teased the wool, and left it on newspapers covering my entire living room floor while I cooked a spaghetti dinner for my church singles' group. That night I met David. In all my years of dreaming of a weaver, it never occurred to me to dream about a husband, but here was David, interested in my spinning and ready to "step over" that enormous pile of wool and into my life.

Two years later, dressed in similar sweaters which I knitted, we traded wedding vows. As we grew to love each other more, we also grew to share each other's interests. After following me to conferences and helping me to teach (and eventually taking a few fiber classes himself), David decided to learn to weave. He completed some rugs, a small scarf, and three inkle loom projects. This blanket was his first major weaving project.

David's story

When I first met my wife, I knew little about the fiber arts. She showed me some of her knitted sweaters, and I said, "That's very nice." She gleamed, and later showed me her spinning wheel. I said, "That's nice." Eventually she showed me the rooms full of fleece, bags and bags of carded fleece and homespun yarn, and the full-size loom I was going to move into my house, and I said, "That's. . . . "

I admit I was intrigued by the shaping of the fibers, from fleece to finished product. The completed items had a very different look and feel from the sweaters and scarves I was used to. But this was Jude's thing, and I tried not to crowd her. I quietly stepped over the occasional fleece and around the ever-present loom, and was always happy for her that she had three or four knitting projects going on. But this just wasn't for me.

Occasionally, I would assist with warping the loom, and would take the opportunity to throw the shuttle once or twice, but not often. No sense in interfering with her thing. And I did get to know quite a bit about yarns, since their constant presence made easy conversation. But I was going to work on being a writer, and didn't have time to spend learning to distinguish be-

Jude and Dave Daurelle and their kids let go of their "family blanky" long enough for us to photograph it, although they weren't sure how the kids would manage to watch their morning cartoons without it.

tween Rambouillet and Corriedale, woolen and worsted, warp and weft. No, I had best get on with my own thing. Though the feel of all these different wools was wonderful. And, while I thought the idea of getting rabbits was probably a good one (especially for the kids), I didn't mind getting angoras at all.

But time went on, and I became more intrigued with the weaving process. The loom looked impressive, but it's just a collection of simple machines, making a difficult job easy. How could such a machine keep someone's attention for hours on end, especially when you must warp it to have any fun? I tried some things. A couple of rag rugs. They didn't turn out well at all. The edges were embarrassing, and the warp wasn't tight enough to hold the whole thing together. There was more to this than met the eye.

After thinking about it a while, I tried again. But this time, I knew my limits. I tried an inkle loom, and worked on making even edges. I tried estimating how much warp and weft I needed to create a project. And it worked! I had good edges, some useful items for the house, and an avid desire to give the big loom a run for its money.

While this was going on, my wife sat there spinning and smiling to herself. She would start spinning some wool for a project, and then discover there was another fleece that hadn't yet been spun. The yarn continued to pile up, and there was always something else to spin.

"I got this mohair as the door prize at the guild meeting last night. With just a little more, I could make a. . . . "

"Aren't these lovely cotton balls? I found them at the drug store, and I'll bet I can make a. . . . "

"We worked on dyeing wool last night. If I make just a few more skeins of this Cormo, I'll have enough to dye a. . . . "

Finally, the two threads of our existence were plied. I have taken up weaving, and my wife continues with her favorite fiber craft, spinning. It will be years before I've conquered the mounds of yarn which adorn our house, and I will have learned many things about weaving all the known natural (and many unnatural) fibers. Jude will be able to spin to her heart's content, happier that her projects will finally see the loom. And we will be able to make the solitary efforts of weaving and spinning communal, with a shared goal.

Starting the project

This is our first complete project together. We wanted to make a dent in the piles of bulky yarns laying around, and with kids coming and going all the time, blankets are always useful. Hence, a blanket stood out as our first collaborative work. To make a blanket large enough for our purposes, approximately 90 by 108 inches (228 by 274cm), we chose to weave double-width cloth.

One of the problems one faces when reducing a pile of miscellaneous yarns is finding enough yarns of the right sizes and shapes to make a project. We looked at some ways around this problem. Our solutions confronted the difficulties both of yarn size and of color coordination.

Blues are ever-present in our house. They are Jude's answer to the word *color.* Additionally, we have many skeins of blacks and grays, ready to be used as is or dyed. Our color scheme for the blanket was determined by the collection of blues, browns, and grays which we had in the correct size.

We started with roughly sixteen skeins of bulky-weight two-ply wool in mixed natural browns and grays, and a selection of blues produced by overdyeing white, gray, and black with indigo.

To make the blanket, we found that we did not have enough yarn of the correct grist. We did, however, have several skeins of indigo-dyed Columbia singles which was the right shade of blue. When plied, these made a yarn of the proper size to match the rest of the yarn we intended to use.

Our other design question had to do with mixing the variety of colors in a reasonable fashion. We chose to make a plaid, to distribute the colors throughout the blanket, but decided on a random plaid so that differences in quantity between the different shades of the dark blues would not be noticeable. We used a somewhat elaborate procedure to determine color placement within our plaid, which makes careful use of the specific amounts we had of the different yarns.

Planning and weaving

After selecting enough skeins for the warp, we looked at the relative proportions of blues, grays, and browns. We had 800 yards of mixed dark blues, 400 yards of gray, and 500 yards of brown. Thus the proportions were 8:4:5, which we rounded to 8:4:4 or 2:1:1.

Before warping, we pulled aside the brightest blue yarn (dyed over white Columbia) and reserved it for use in the weft.

We made the warp in four sections, because that was what our warping board could handle. To balance the colors, we began by dividing each of the color groups into four parts. Then we wound each section using a rhythm of two blue threads, one gray, one brown. We varied the rhythm in a couple of ways. First, we worked in simple multiples of the basic numbers—as an example, four blue, two gray, two brown, followed by eight blue, four gray, four brown. Second, because we had slightly more brown than gray, we occasionally dropped one gray thread and substituted two brown threads for it.

For weft, we used the same color rhythm, although extra shades of blue were available. In this case, we had 520 yards of blue, 370 yards of mixed dark blues, 200 yards of gray, and (using some leftovers from the warp) 250 yards of brown. Our proportions in the weft were thus approximately 5:3:2:2.

Although the treadling pattern was simple and was repeated throughout the blanket, I spent a lot of time changing shuttles for the plaid. I planned my shuttle changes so that all the tails were on one side of the blanket and could be secured neatly.

Finishing

After taking the blanket off the loom, we tied the loose warp ends with surgeon's knots, wove in all joins in the weft, and fixed the mistake I made while repairing a broken warp thread. We used the loom thrums to make fringe along the selvedges of the blanket, matching the fringe colors to the plaid design, and worked our weft tails into this supplementary fringe along the side where we had left them dangling. Finally, we braided all the fringes.

To straighten the fabric's grain, we pulled the blanket corner-to-corner and across in both directions. Then we fulled it in a washing machine, and pulled it again. This felting and pulling process softened the fibers and felted the blanket slightly, to help it hold its shape.

While this blanket was originally intended to take its place on a bed, it has found a home on the couch. The kids just can't seem to watch television without curling up underneath it.

Nor can we, for that matter. ❖

Both Jude and David Daurelle are members of the M. Atwater Weavers Guild and the Salt Lake Spinsters.

Jude has been knitting since she was three, and spinning and weaving for over a dozen years. She has a fine arts degree in music and arts education, and currently teaches school . . . as well as knitting and spinning workshops.

Dave works as a computer programmer, although his training is in biology. He is also a freelance writer, and sometimes serves as a substitute teacher in the secondary schools in Salt Lake City.

Resource

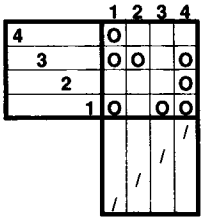
Plath, Iona. *The Handweaver's Pattern Book.* New York: Dover, 1981.

Weaving Notes

Fabric description: Double-width cloth, joined at one edge.
Dimensions: 90" × 108" (228 × 274cm), before finishing; 80" × 90" (203 × 228cm) after finishing.
Warp: 1650 yards. Total of 450 ends, 132" long, which includes 18" loom waste and 3" fringe on each end.
Sett: 10 ends per inch. (Because this is double-width cloth, the effective sett of each of the two layers is 5 ends per inch.)
Width in reed: 45".

Weaving: When weaving two layers, treadling errors will "tie" the two pieces of cloth together and need to be avoided. I occasionally checked my treadling accuracy by separating the two layers, using treadles 2 and 3 together to lift the upper layer.
Weft: Same as warp, woven at 8 picks per inch, for a total of 1152 yards (total of warp plus weft is 2802 yards).

Draft:



It *is* in the Water

by Barb Quinn

In a very coordinated group dyeing experiment, this Washington state guild discovered the color-affecting power of water.

ONE SPRING, Shirley Zitt, a member of our guild, suggested a project to determine whether water from different areas is a variable in the dyeing process. I don't think any specifics were mentioned, but the idea tripped my trigger. I brought up the idea at our next guild meeting, where I got lots of questions. What kind of dye? Were we to use purchased fleece or roving? How could we be sure to control all the variables so that we would know if the water affects the color?

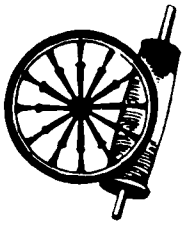
We continued to talk about the experiment. Terri Franks from Hood River offered her scales, a recipe for mordant, and weighed wool samples taken from the same kind of sheep that had eaten the same grass! Now for the big decision—what would we use to make our dye? Mullein was in plentiful supply at this time of year and goldenrod was blooming. We had previously experimented with tulip tree leaves and had gotten a beautiful baby yellow. One member had a tree in her yard, but that was twelve miles away. But the courthouse lawn also boasts a tulip tree, and on a Saturday no one would be there. Three of us went off to accost the tree. To escape the winds, we took the leaves into the restroom at the park, where we measured and bagged one-ounce allotments of leaves. Imagine what that must have looked like to an uninitiated visitor!

Each of us took home two ounces of wool, a bag of leaves, a recipe, and a precise list of instructions. We agreed to make our "tea" that night so that all of the leaves would be equally fresh.

By area, Skamania County is the largest county in the state of Washington; at the same time, it boasts the smallest population. We have many rivers, springs, and streams among the mountains and cliffs in our backyards. Our membership is sprinkled among the forests and townships of this beautiful area, and with such a sparse population, our water comes from a variety of springs, wells, and city sources. A couple of enthused members collected water from Bubbling Mike and Iron Mike, which are mineral springs located in the Gifford Pinchot National Forest area.

Now the fun began.

- We made tea: *Mix one ounce of tulip tree leaves in one quart of water, simmer for one hour, leave to soak for twenty-four hours, then strain.*



Gaywool Dyes

FOR WOOL, MOHAIR, SILK & ANGORA

ARE SIMPLE, COMPLETE AND FUN. The formulation includes the Mordant and dyebath acidifier, and thus all that is necessary to produce true to type colorfast dyeing — no mixing or weighing required. The lid can be used as the measuring device, one capful to 4 oz. of fibre. The dyeing process takes just 30 minutes to produce a true to type, colorfast result, which will never fade, wash out or run.

There are 24 fabulous colors in our range. They can be used as above to obtain the color on the shade card or the jar, or they can be diluted for softer shades, strengthened or mixed as required.

They are excellent used with the simmering technique, cold water, microwave or rainbow dyeing.

Colors available in the Gaywool Dyes are Mushroom Paw Paw, Wattlebark, Logwood, Coal, Silverbirch, Honeycomb, Pumpkin, Madder-Orange, Watermelon, Tomato, Raspberry, Blueberry, Cornflower, Indigo, Avocado, Olive, Lucerne, Plum, Cyclamen, Hibiscus, Primula, Lavender and Violet (chemical composition).

Gaywool Sliver

If you know Australian wool you will know quality. Our MERINO slivers are as soft and shiny as silk, a delight to feel and spin and pure luxury to wear, but at prices that will also delight you. Our range of colors and over twenty blends will cater for every age group and color type. There are also blends of Australian mohair and Merino. Even better still, our dealer network spread over the US and Canada can help you immediately with your needs.

Some of this years colors and blends are Light Grey, Blue Lovets, Oak, Tea Tree, Taffi, Bottle Brush, Kangaroo Paw, Astilbe, Poppy, Blue Gum, Mallee, Dusty, Honesty, Sea Crest, Blue Grass, Cherry, Emu, Desert Sand, as well as favourites like white, black, navy and red, all available in the finest merino available of 22 microns.

Gaywool Yarn

Proudly grown, dyed & spun in Australia

Gaywool Yarns are produced from wool grown from specially selected sheep. Fine Merino wool is used in our yarns selected for its softness and smooth texture that can be worn close to the skin. Our yarn is ideally suited to hand or machine knitting and weaving. 24 colors.

Gaywool yarns are available in 3½ oz. (100 gm) skeins and there is 72 yds/oz. (8 ply).

Samples

Dye Cards	$1.50
Merino sliver card	$1.50
Kid Mohair/Merino sliver card	$1.50
Gaywool Yarn Card	$1.50

GAYWOOL DYES,
26434 189TH AV SE, KENT WA 98042,
PH/FAX 206 631 7364,

GAYWOOL DYES,
NOORAMUNGA ROAD,
DEVENISH VIC. 3726, AUSTRALIA,
PH 011 61 57 641363,
FAX 011 61 57 641322.

GOLD RUSH '92

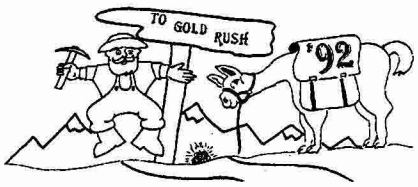
The Rocky Mountain Alpaca Sale and Llama Sale

DEADLINE:
June 15, 1992
for Catalog Entries
Special Hotel Rates

1% of Sale Proceeds go to benefit ILA Marketing Research

- *Now accepting consignments*
- *Limit of 50 Alpacas*
- *Limit of 100 Llamas*

September 17-18-19, 1992
In the beautiful Waymire Dome of the
Adams County Regional Park Complex
(Just 18 miles North of Downtown Denver)



HOST HOTEL:
Sheraton Graystone Castle
(303) 451-1002 for reservations
Be sure to mention GOLD RUSH '92 for your SPECIAL rates.

SALE ORGANIZATION:
Living Art, Inc.
Frank & Eleanor Palmisano
2309 J Road
Grand Junction, CO 81505
(303) 242-8759

- We washed our wool: *Scour two ounces of wool with 1/4 cup of Ivory Flakes in two quarts of water, then rinse.*
- We mordanted our wool: *Mix 1/8 teaspoon alum and 3/8 teaspoon cream of tartar with one quart of water, add wetted wool, and simmer for one hour.*
- We dyed the wool: *Place wetted, mordanted wool in dye water and bring to a simmer for one hour, leave to soak for twenty-four hours, then rinse and hang to dry.*
- We phoned: *What color did you get? What? Mine isn't like that. Is that right? Mine is like hers? I'll call her.*
- We compared: *The colors ranged from almost-not-dyed to dark greenish grays, with shades of pinkish beiges, reddish tans, and yes, a yellow, but one that is closer to light gold and not the pretty baby yellow we remembered from the year before.*

At our next meeting we decided to present a display board describing the experiment at our county fair. Fair-goers found the process fascinating. Most people have no idea how colors get into fabrics, or that bushes, weeds, and leaves will work as dyes. We won a blue ribbon and money!

The next step was to make a "book" out of index cards for each member who participated. We also sent a book to a guild that exchanges newsletters with us. And another copy was submitted to the Northwest Regional Spinners Association library. Later, our display board traveled to Oregon for a "show and tell." A comment was overheard there, passing between two members who live a half-mile apart and had come up with two colors of dye from the same dyestuff: "You don't think it could have been the water, do you?"

I emphatically urge other guilds to try this experiment in their areas. It is simple enough that all can participate, yet it holds surprises for the old hands. ❖

Barb Quinn is the editor of Spinner's Yarns, *an almost-monthly newsletter for Skamania Fleecers and Fibrecators of Stevenson, Washington. She lives in Washougal, Washington. An earlier version of this article was published in* Loose Threads *magazine, the newsletter of the Northwest Regional Spinners (November 1986).*

HANDSPUN GALLERY

Silk Needlepoint Box

Janet Bowe-Bosch
Tulsa, Oklahoma

It can be a challenge when you have a dear friend who adores silk and you want to make something special for her birthday. Having only spun silk in a workshop, I decided to see if I could spin and ply a silk yarn to use in needlepoint on 18-count canvas. In that aspect I succeeded. I also wanted to be able to dye the yarn, and to use a design in a book of Oriental vases for the pattern. In that aspect, I hate to say I "failed"; let's just say my original vision became slightly altered.

The yarn was spun from a lovely combed silk that was a birthday gift to me. I two-plied it and made five separate skeins of about thirty-five yards each. The singles measured 50 wraps per inch, and the two-ply yarn measured 32 wraps per inch.

I dyed each skein separately in the microwave, using Gaywool dyes. The colors I had on hand were not exactly the colors in the vase pattern, so I tried mixing the dye crystals. I dissolved the crystals in two cups of hot water in a Pyrex dish and microwaved the skeins in the dye on high for four minutes. The colors of the dry skeins were different, so I decided to scrap the vase design. I got out graph paper and colored pens and devised the design for the lid myself.

Needlepointing with the silk yarn was a breeze. I wanted to add a touch of shimmer and found a wonderful gold braid that worked up very nicely (Kreinik Balger #16 Braid, color 002).

I made the box itself from picture frame moulding. Picture framing is my business, so construction involved choosing the moulding and putting it together. I lined the inside and bottom in black silk.

This project may not have turned out the way I envisioned it, but the look on my friend's face when she opened the package was enough to let me know that in her eyes it couldn't have been any better.

Editor's note: When using the kitchen for dyeing, be sure to keep dye utensils and equipment separate from those used for food preparation.

Felted Jacket with Knitted Sleeves

Sidney Black
Richmond, Virginia

Baa, baa, black sheep, have you any wool? Yes, sir, yes, sir, three bags full.

That's what I got when I bought my first fleece—three bags full. I am a novice spinner and I love every minute of it, but for an entire fall and winter, I spent all my free time spinning black fleece. I knitted a sweater, a long scarf, and a circular shawl 180 inches in diameter, and I spun and spun and still had a full bag of unspun fleece.

I am from the generation that was told "clean your plate," "use what you have," and "don't be wasteful." In my opinion, I couldn't go on to anything else until I had used every bit of this unspun fleece. I was about to have a crisis.

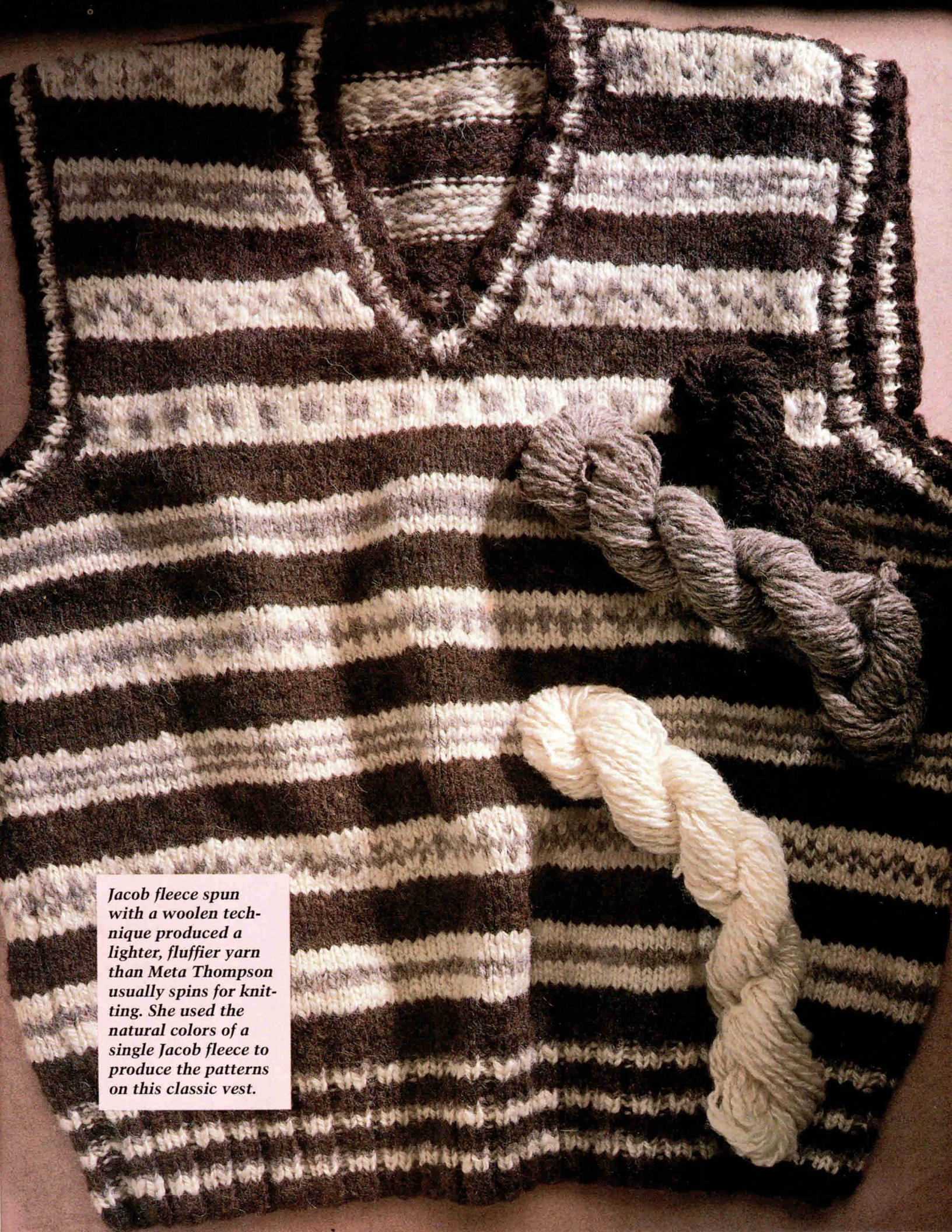
The Chinese describe a crisis as opportunity plus risk. I decided I would not have a crisis; I would look at this last bag of fleece as an opportunity and think of a project that would be fun and productive.

At a spinning guild meeting where we talked about felting I had the beginning of an idea. Why not take this bag of fleece, felt it into cloth, and sew it into a jacket like the Alpine ones I had seen in the stores?

I found a commercial pattern for a two-piece suit with the style I wanted the jacket to have. I placed the pattern pieces

Janet Bowe-Bosch spun about 175 yards of two-ply silk to work this needlepoint design on 18-count canvas. Then she made a box to display it.

The body of Sidney Black's jacket is felted fleece; the sleeves are knitted with seed stitch from yarn of the same fleece. The edging is picot-point.



Jacob fleece spun with a woolen technique produced a lighter, fluffier yarn than Meta Thompson usually spins for knitting. She used the natural colors of a single Jacob fleece to produce the patterns on this classic vest.

Mary Crisp separated the four colors in compatibly dyed batches of silk and wool, and spun both fibers and color groups separately. The design in her Fair Isle vest depends as much on the fibers as on the colors for its effect.

on some fabric to determine the length and width of felt I would need.

I borrowed a book from the library and read about felting. It took about three hours to card the fleece on a drum carder. I layered the batts lengthwise, crosswise, and again lengthwise on some fabric from old cafe curtains and put a second layer of the fabric on top. The resulting piece was about 4 inches thick and 3 yards long by 1½ yards wide (10 cm × 2.7 m × 1.4 m). I spent about six hours quilting this with loose stitches about 3 inches (7.6 cm) apart in all directions. Then I sewed the edges together with fairly small stitches, said a small prayer, and put the whole thing into the washing machine on gentle cycle. After air drying, I pulled out the stitches and found that my attempt at felting had worked. The felt was nice and thick in some places, not so thick in others, and it had shrunk to about half its original size—but I had enough dark brown felted material to make the body of the jacket.

I stitched the jacket body together, finishing the seams with a whipping stitch so they would lie flat. For the sleeves I chose a full, almost leg-of-mutton style. I made a cardboard pattern and, using the handspun wool, I knitted from the cap down in a seed stitch,* shaping the sleeve as I went. I joined the two sides at the underarm and knitted in the round down to the cuff. Then I lightly blocked the sleeves and sewed them into the jacket.

I tried samples of edging on pieces of leftover felt, but nothing appealed to me until I did the picot-point edging shown in Deborah Newton's "A Sampler of Knit Edgings and Applied Trims" in the August/September 1987 issue of *Threads* (#12, pages 38–42). The jagged edge of the picot-point seemed to complement the texture of the knitted sleeves and was heavy enough so that it wasn't overpowered by the felt. I handsewed the edging to the jacket and stitched a large hook and eye at the neck.

The jacket was finished and I had fun solving the problem of what to do with the third bag of wool. I get many compliments and I am proud to say that I did everything myself—from the sheep's back to mine.

*Seed stitch: On an uneven number of stitches, *k1, p1, repeat from *, across each row.

Man's Vest from Jacob Fleece

Meta Thompson
Bellmont, North Carolina

After taking a workshop last spring with Priscilla Gibson-Roberts, I was inspired to complete a project in which the qualities of the fleeces determined the final product. I also wanted to prepare the fiber and spin the yarn by a consistent woolen or worsted technique, as well as try out a new spinning method.

I decided to use a local Jacob fleece I had just purchased. I separated the three colors, washed the wool, and hand carded it. I spun a woolen yarn from the rolags, using a long draw and staying ahead of the twist. After plying, I set the twist using a simmer bath.

The resulting two-ply yarn was lofty and very different from the finer but heavier three-ply yarns which I usually use for knitting. It measured about 1280 yards per pound, six wraps per inch, and two plying twists per inch. The twist angle was approximately 14°. I knitted the vest using a classic men's pattern that I had used previously. The knitting gauge measured 4½ stitches per inch (18 stitches/10 cm) on size 6 (4.5 mm) needles. The vest is sized for a large man and weighs about 20 ounces.

Silk/Merino Fair Isle Vest

Mary M. Crisp
Stone Ridge, New York

How did this project evolve? The colors first caught my eye: the bags of Merino top and slinky silk dyed in rich colors just shouted to be taken home. So, I purchased 16 ounces of Merino top and 6 ounces of tussah silk top in Treetops Color Harmonies' Autumn Foliage. But multicolored top presents a special challenge: how to retain the rich interplay of blocks of color in a plied yarn. Even Navajo plying didn't produce the knitted effect I wanted.

Seeing the wool and silk dyed to match in such rich, close colors, I decided to try using Fair Isle technique, with the different fibers helping to show the patterns.

First, I needed to look at the color progression on the fiber. There were four main colors. I pulled the top apart and separated it into four corresponding groups. Bits of the adjoining colors were left at the ends of the segments, but this added to the unique compatibility of the spun yarns.

I treated the wool and silk in the same way, spinning and plying each color of each fiber to produce a sportweight (14 wraps per inch) two-ply yarn. I ended up with four balls of silk and four of wool.

After knitting some sample swatches, I decided that I would use size 3 (3.25 mm) needles for the body, at a gauge of 8 stitches to the inch. I would use size 1 (2.5 mm) for the ribbing. I wanted a front opening, but much prefer knitting in the round, especially when working a multicolor pattern. So I decided it was time to tackle the *steek,* or stitch-and-slash technique. With Priscilla Gibson-Roberts' *Knitting in the Old Way* (Loveland, Colorado: Interweave Press, 1985) close at hand, I worked steeks at the front, armholes, and neck opening. (The neck opening steek didn't work as well as the others, and I haven't tried that again!)

When the main body of knitting was done, I read Priscilla's directions ten times, took twenty deep breaths, then stitched and cut as directed. It worked! I knitted the front edge ribbings up to the neck edge and sewed them down. I then picked up stitches around the neck, plus the front-edge ribbing stitches, and finished the neck ribbing.

I washed the completed vest in cool water with a dash of dish soap. After rinsing, I laid it flat to dry. Then, using a pressing cloth, I lightly ironed it on the wool setting and added the buttons. The finished vest did capture the interplay of color that first attracted me. ❖

Child's Sweater and Hood

Gina M. Hills

Gina Hills corespun a delicately blended mix of Romney and mohair onto cotton thread, then plied with Bombyx silk to get the "woolly" effect of the yarn in this outfit, worn by her daughter.

GRANDMA MAY was a woman who boldly left her home country of England as a bride after World War II. She sailed across the mighty Atlantic intent upon a new life in a new country. In addition to her hopes and dreams, she brought with her centuries of English traditions. She was an avid knitter, taught by her mother in their home above a butcher shop outside London. My grandmother knitted sweaters for her own children, then for her grandchildren. She tried over the years to teach me, her youngest granddaughter, to knit. I was all thumbs and did not take well to the music of the singing needles, but a song remained in my heart for the beauty of handmade garments. Only after Grandma May joined her forebears at the age of ninety did I try to knit again. It all came together like magic. The song my grandmother left me became a reality.

My husband has been a constant source of support and often of challenges. It was he who encouraged me to take up spinning, a seemingly natural extension of knitting. So I find myself today creating sweaters even in my dreams.

I was delighted to attend SOAR '91 in Potosi, Missouri. I found myself inspired, challenged, and a bit awed by all the creative and talented people. Before the retreat, I received word that there would be an informal fashion show of hats. I was intrigued. As a native Michigander, for me the word *hat* conjures up memories of frosty mornings building snowmen and cozy afternoons snuggled up to a warm cup of cocoa. I immediately remembered a pattern in a book entitled *Family Knits:*

100 Idées (New York: Ballantine, 1987, pages 28–33) of a lamb hat and sweater ensemble.

My first challenge was to produce a handspun yarn that was lustrous, lumpy, and woolly-looking. I began by lightly hand carding creamy Romney roving (which my mother had sent from New Zealand) with some mohair locks. I wanted the blend of the two fibers to be married and yet to retain the characteristics of each component. So I carded only once through and remained light-handed. I removed the fiber from the hand carders and left it as "mini batts."

I corespun the wool and mohair onto cotton crochet thread using an S twist. Cotton thread is a good core because it is a natural fiber and provides the "grab" you need to make a stable yarn. I set the wheel at a slow speed to give myself plenty of time to design the yarn.

I tied the thread to my leader, then began drafting. Since I spin left-handed, I held the thread in my left hand and the fiber loosely in my right. I held the fiber at a 90° angle to the thread so it fed from the side. I corespun loosely and allowed any locks to lightly wrap onto the core. At fairly regular intervals, I pushed the fiber already on the thread forward with my right hand to create little lumps or spirals. I then plied the wool and mohair with Bombyx silk singles, using a Z twist. I was delighted with the results and used this yarn for the bulk of the project. The lamb's face and ears are simply a dark brown Romney two-ply.

This may seem technical and a bit overwhelming, but rest assured. It will become clear as you get into it. The music will at first be off in the distance and then will come closer until it finally all comes together. The song in your heart will become reality. Thanks, Grandma May. ❖

Gina Hills, of Tulsa, Oklahoma, brought her family to SOAR '91. As a result, Marisa modeled her own outfit in the hat show.

Photos by Steve Ervin, of Ervin Photography, 1660 E. 71st Street, Tulsa, Oklahoma 74136.

Resources

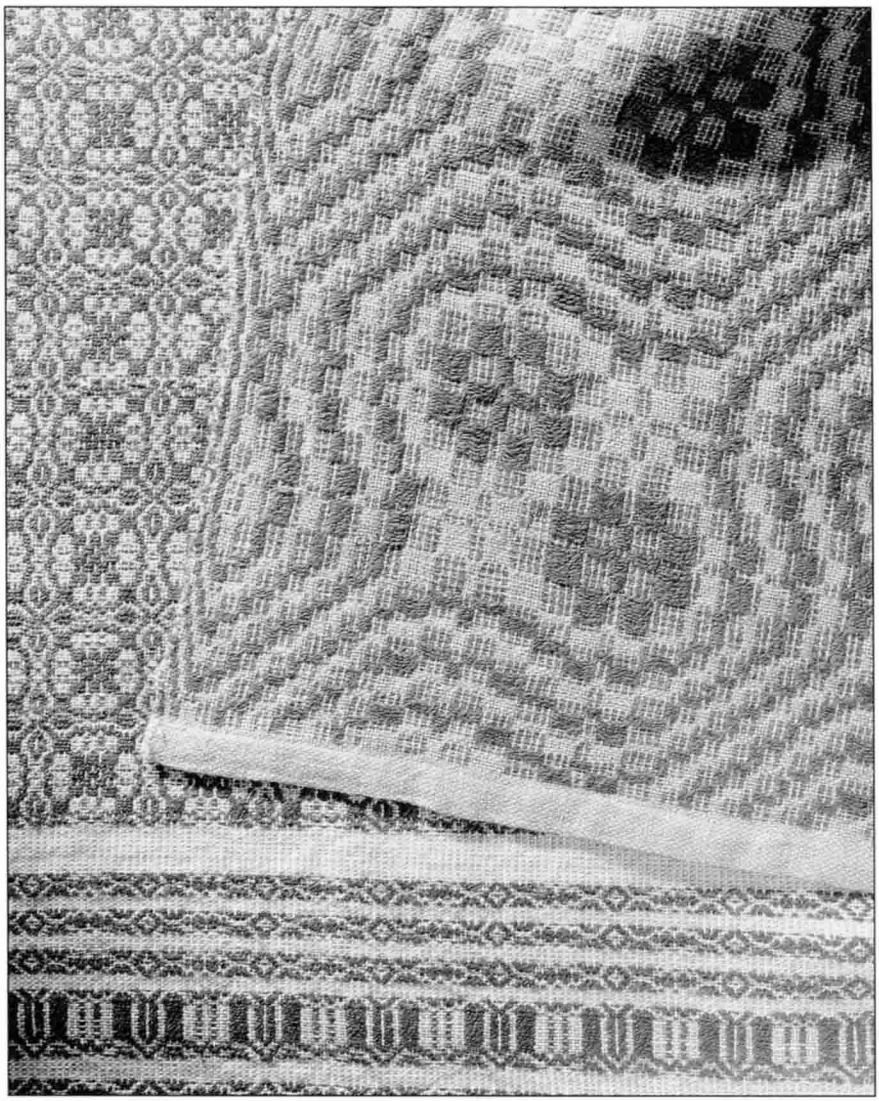
Family Knits: 100 Idées. New York: Ballantine, 1986. *The lamb pattern is part of a series that begins on page 28, called "Animal Magic." It also includes a fox, a mouse, and a cat. The book is hard to find, and may not be currently in print. Some libraries own copies, and after a number of phone calls we located a supply for sale at Unicorn Books (1-800-289-9276). We'd be happy to let our readers know about other sources.*

Glossop, Maggie. "Spin Wrap Technique." *Spin·Off* 12, no. 3 (Summer 1988), pages 22–25.

Gina modified the pattern she found in *Family Knits* by lengthening the body, and she worked more rows between the lamb's eyes and the cast-off point in the hood. When the hood was finished, she wove an ecru piece of satin ribbon from the center bottom edge of the hood all the way over its top, then to the back center again—this acts as a cinch ribbon and helps the hood fit a smaller child.

Materials. 12 ounces Romney/mohair/silk handspun in bulky weight. 1½ ounces of two-ply contrast yarn for face and ears. 2 yards of yarn to embroider nose.

Gauge. 9 sts and 14 rows = 4" (10 cm), with main yarn on larger needles.



A Gallery of Handspun

FLAX

LAST SUMMER we invited *Spin·Off* readers to send photos and tell us what they've been making with handspun linen yarn. The response was a wonderful demonstration of this fiber's versatility. Today's spinners are using flax to make machine-washable sweaters, heirloom-quality table linens, absorbent towels, delicate lace, and practical tote bags.

There's a lot of inspiration in the work we discovered. Whether you're a beginner or an experienced spinner, this selection will start the ideas flowing. Linen isn't hard to spin; at the same time, it rewards patience and skill with increased luster and body . . . which turns, over time and washing, to a comforting, sturdy softness.

Although in the everyday (read *commercial*) world, it's common to think of true linens as luxurious textiles at the high end of the consumer profile, as handspinners we can rediscover the fact that linen is one of life's durable basics. Make a project from linen and you've made a useful addition to a large chunk of the future.

What are you waiting for?

Sweaters

Many spinners have spun flax roving into medium-weight plied yarns for knitting cool and comfortable sweaters. As Val Slemko, from Strathmore, Alberta, writes, "In knitwear, linen has an unyielding softness that feels good next to your skin, and a luminous quality that increases with each washing. This is the magic of linen—the more it's used, the more elegant it becomes."

Val used tow flax to knit her sleeveless summer top. She says, "As with any fiber, the better the preparation, the easier the spinning. I pulled off a manageable length of the combed top and split this lengthways several times. I spun by drafting from the end of the top, taking care not to let the twist run up into the fibers. The length of draft is limited by the fiber length; with this flax, a three-inch draft

Above left: On a commercial linen ground, Ann Welch's handspun singles provide the pattern weft for "Whig Rose" (left) and Snail's Trails and Cat's Tracks (right).

was comfortable. More than that and the drafted fibers would drift apart.

"With flax, it's important to spin and ply all the yarn for a project before starting to knit, because the skeins must be softened all at the same time. After spinning, linen yarn is a dull brown and feels rather like string. To clean and soften it, I boil the skeins in a pot of soapy water and washing soda, using one tablespoon of washing soda per ounce of linen. I boiled this yarn for an hour, then changed the water and repeated the process. After rinsing the yarn, I put the skeins in a mesh bag and dried them in the dryer with two of my husband's tennis shoes. The boiling and drying process effectively lightened and softened the yarn, but to add a final polish I ran the yarn from my swift back to my spinning wheel through dampened fingers. This added a slight overtwist which was removed during the knitting process. I spun the singles with S-twist and plied with Z-twist. The finished yarn measures about 22 wraps per inch.

"I designed this simple summer top using a stitch pattern called 'Fascine Braid' from Barbara Walker's *A Second Treasury of Knitting Patterns*. I knitted the top on a 3 mm (size 2) circular needle. The neckline closes with two small pearl buttons."

Elizabeth Barnes, of Bethlehem, Pennsylvania, made a brown linen sweater, and wrote, "When I was teaching myself to spin, I tried every fiber I could find. The only flax available locally was in roving form. At the time, I thought it was tow flax, since the fibers were short; now I realize it was probably line flax cut into short lengths. It was easy enough to spin, but my first flax yarn was disappointing—it looked like package string. I kept trying until I could spin a fine, even, singles with a fair amount of twist, then made a two-ply yarn for knitting.

"Flax has no resiliency, so knitting with it requires care. Uneven stitches tend to stay uneven; they don't adjust and fill in the spaces. I chose a textured stitch pattern, hoping this would help compensate for the yarn's inelasticity. And it's true that any knitted fabric, even linen, has some give, simply because of the nature of knitting.

"When newly made, this blouse had plenty of body and draped pretty well. Later, after I washed it, the fabric got much softer and much more drapey—in fact, almost droopy. I added a cord at the waist to keep it from sagging. I've experimented with pressing the blouse in different ways. Pressing firmly gives sheen to the fabric but flattens it. I prefer to press very lightly, barely touching the fabric. I steam-press, then leave the garment flat to dry thoroughly.

"The main lesson I learned from this project was about color. The flax roving was a drab dark shade, and it was hard to find anything to match or complement this blouse. Brown would have been good, but when was the last time you saw an interesting summer-weight brown fabric? I eventually did find some fabric which closely matched the blouse, and made a skirt. For color, I use jewelry. Now I think the outfit is great. The blouse is certainly one of the most unusual I've ever had. It keeps getting more and more comfortable,

Sweaters by Elizabeth Barnes, Val Slemko, and Susan Skirvin (top to bottom). Instructions for Val's sweater are on page 59.

The two background fabrics were a team project at the Farmer's Museum in Cooperstown, New York. The one on the left is in M's and O's; the one on the right is a twill-based structure called "Ginny's Coat." Folded on top is Kathie Mellinger Plack's lap towel, made from what she refers to as "junk yarn."

and I expect it will last for years."

Sue Skirvin, in Tucson, Arizona, spun a two-ply yarn from blue Euroflax roving to knit her summer top. The notorious inelasticity of flax resulted in the top's "growing" a few inches longer after the first few wearings, especially around the armholes, so Sue took the shoulders apart and ripped out a few inches, then redid the shoulders and trim. Now it's just right.

Towels and runners

Flax is the traditional choice for weaving table linens, towels, sheets, and other household fabrics. Linen cloth is strong and durable, but many spinners and weavers hesitate to weave with linen—they've heard it's "difficult" and "unforgiving." In particular, they avoid warping with unplied handspun linen, because they're afraid the abrasion of the heddles and reed will fray and break the yarn.

One easy solution is to use handspun linen for weft on a warp of commercial linen or cotton yarn. Another is to ply some handspun linen for the warp. Plying helped Kathie Mellinger Plack, of Herminie, Pennsylvania, weave a linen lap towel from what she calls "junk" yarn.

She writes, "It's a sad fact that when I'm spinning in public, I don't always pay much attention to the yarn. If someone asks what happens if it breaks, or how to make it thicker, I show them. Combine this with wind, a toppling distaff, you name it, and the resulting yarn is thick, thin, strong, weak, fuzzy, sleek—in a word, junk. But I do more spinning at shows than at home, so that's the yarn I have. And I wanted to weave yarn spun at shows into a lap towel to use and display at shows.

"In this case, I plied the warp to make up for its imperfections, but used a singles weft. The warp is sett at 24 ends per inch, and the fabric is a slightly warp-faced huck weave. I had no trouble with tension or abrasion on the warp. I used no sizing, but I misted the warp at the fell and kept the weft bobbins dripping wet. When not weaving, I put the bobbin in a glass of water, and kept extra wet bobbins soaking in the refrigerator. My only problem was hemstitching the towel on the loom. This was a time-consuming and frustrating task, because the weft yarn I was using kept breaking. The moral is to spin yarn especially for the purpose.

"The cloth was stiff and dark when I took it off the loom, but it lightened and softened considerably when I boiled it in a few changes of water with a little washing soda, Snowy Bleach, and a touch of Ivory Liquid. After boiling, I froze the towel and later pressed it. By now I've washed it many times, sometimes in the washer. I smooth it on a flat surface, upside down, to dry. This substitutes for pressing.

"Even with flaws, this towel has fulfilled my goals. It shows an end product for my yarn, and a towel is the kind of textile that's familiar to the public. It demonstrates linen's absorbency as it catches the drips from my wet-spinning; it's usually limp and damp while I'm dry. The huck weave shows the sheen of the singles weft. When pressed, the cloth glows. This luminous quality is one of linen's most endear-

ing attributes and provides me with endless fascination. I take great delight in handing this towel to a festival-goer and saying, "This is soft, and it's *linen*. I could wear cloth like this next to my skin."

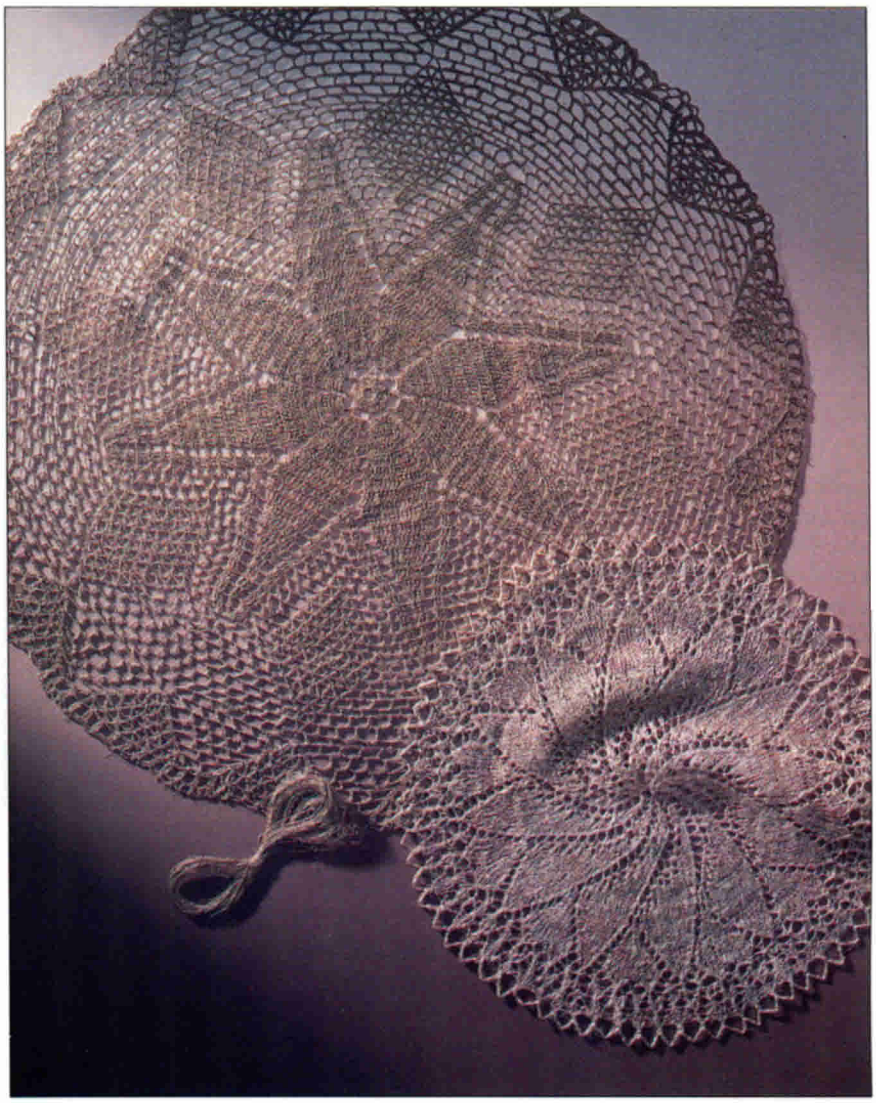
Claire Ottman and other members of the textile loft staff at the Farmer's Museum in Cooperstown, New York, work as a team to produce a variety of handspun flax products. Starting with bales of retted flax straw from Euroflax, about twenty staff members process the fibers with antique tools—a flax brake, scutching board and knife, and four grades of hackles. They wet-spin the line flax on a reproduction wheel. The grist varies as each spinner "does what comes naturally," but they don't hesitate to use scissors to "edit" the yarn.

Claire and several other weavers endured "trial by loom" as they wove yards and yards of toweling on the museum's antique four-shaft barn-frame loom, using their handspun flax as weft and commercial 20/2 cotton as warp. They used two traditional patterns from Marguerite Davison's *A Handweaver's Pattern Book*. The "M's and O's 3 by 3 Plaid" toweling was sett at 36 ends per inch, with a warp 24 inches wide by 20 yards long. The "Ginny's Coat" toweling was sett at 40 ends per inch, with a warp 18 inches wide by 20 yards long. The M's and O's towel in the photo is 21 by 32 inches, and the Ginny's Coat runner is 15 by 60 inches.

Ann Welch, of Kitchener, Ontario, spun dyed Euroflax roving as part of a study group project, and Marion Smith used Ann's linen yarn as weft with a commercial linen singles warp. Marion wove table runners in two traditional overshot weave patterns: "Snail's Trails and Cat's Tracks" and "Whig Rose" (see photo on page 52).

The singles were wet-spun in the Z direction, and had a grist of about 50 wraps per inch. They were washed and dried under tension to set the twist.

Marion did the weaving on a warp of commercial linen singles at 20 ends per inch. Ann spun as Marion wove, and, though she considers herself a fast spinner, found herself hard-pressed to keep up. The spinning taught her an important lesson in patience: linen cannot be rushed, but the end result is well worth the wait.



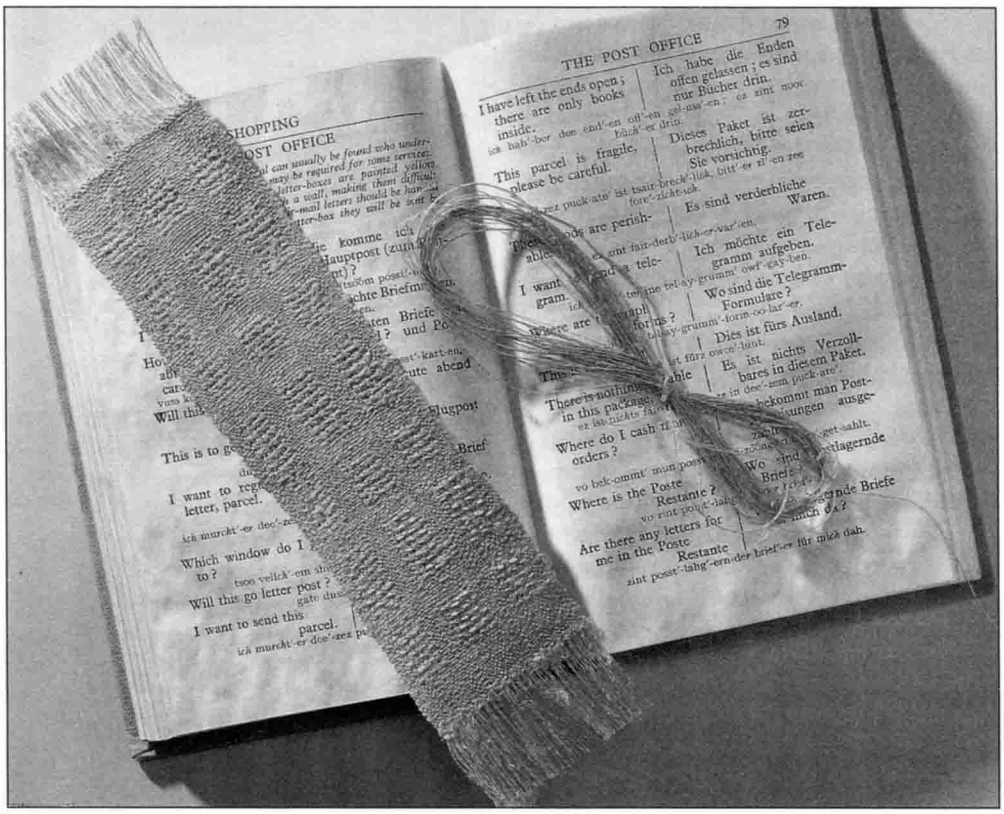
Patti Raley's large doily was made from two-ply yarn, while Jane Flanagan's was made from singles.

Lace

Wet-spinning line flax from a distaff makes a smooth, firm, and inelastic yarn that's ideal for lacemaking. Several spinners sent photos of aprons, slips, and nightgowns with knitted or crocheted lace edging, and recommended edging as an easy first project for working with flax.

For her first linen project, Patti Raley, of Ludlow Falls, Ohio, crocheted a lace doily 17 inches in diameter. She used Fawcett's flax to spin a two-ply yarn that's especially smooth and even, and measures about 80 to 85 wraps per inch. The pattern is "Harmony" from *Magic Crochet* #31 (August 1984), crocheted with a size 11 steel hook.

Jayne Flanagan, of Scarborough, Maine, used Fawcett's flax to spin a singles yarn at about 80 to 85 wraps per inch. She knitted on size 0 (2.25 mm) needles and adapted a McCall's pattern to knit a round



Right: Kati Meek's bookmark is a sample for a larger project which will probably be completed in less than the seventeen years it took her to get this far.

Below: Cindy Bucher's practical traveling bag was invented because she lives in a rural area away from discount stores.

doily 10 inches in diameter. Since making this doily, Jayne has grown and processed her own crop of flax to spin, and she reports that she is spinning finer and finer all the time.

Small projects

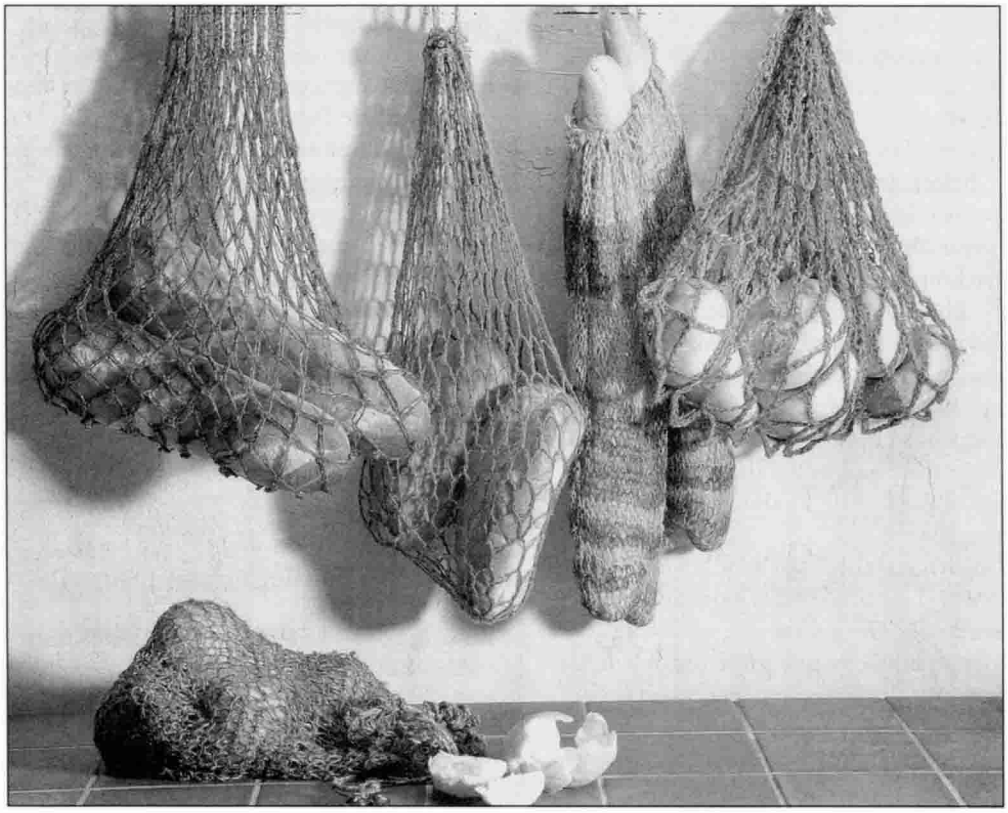
Sometimes spinners hesitate to try a new fiber or technique, because they aren't sure how to proceed. It's always good advice to start with something small. Kati Meek, of Kalamazoo, Michigan, sent a handwoven flax bookmark with this account: "Surely I have the coward's record for turning flax into woven goods. In 1974 I decided I would learn to spin flax, and persuaded a friend to sell me a strick she had used as a prop for a colonial-home demonstration. But it was ten years later, at Convergence in Toronto, before I sat at a wheel with a beautifully dressed distaff and discovered that flax nearly spins itself.

"At that point, I had the flax and the fever, but I still needed a distaff. I saved my pennies and bought a beautiful hand-carved Lithuanian-style distaff in 1986. When the Lithuanian Culture Club asked me to come out in costume to the International Festival in 1991, I decided to shake out that old strick of flax and do something productive while talking to the public. Finally, seventeen years after I had started assembling the materials and equipment, I filled a bobbin with handspun linen yarn. My plan is to weave some small runners, but to test the weave-ability and sett of my yarn, I made some bookmark-sized samples first."

For weaving, Kati sized the yarn by holding a sponge saturated with diluted mucilage in the hand guiding the thread off the bobbin and onto the clock reel. Based on the sample bookmarks, she's planning to weave runners with narrow stripes of canvas lace near each selvedge and plain weave in the center, with warp sett at 36 ends per inch for a balanced fabric.

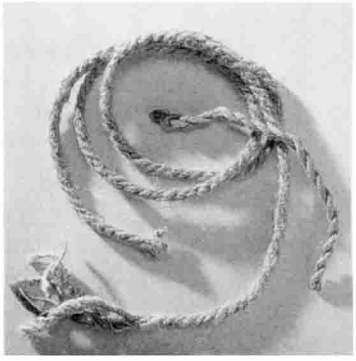
Cindy Bucher, of Livingston, Kentucky, describes a small project that's as charming as it is practical. "Recently sent out of town for training, I had no cosmetic bag large enough to hold the various bottles of solutions necessary for contact lens care. The stores in my rural surroundings had nothing to offer, so I made my own carrying case.

"I spun up some bleached flax roving, plied it, and wrapped it around a coffee can. I filled the can with water and submersed it in a canning kettle. This kept



Left: The Deep Cove Weavers' and Spinners' Guild's string bags came from a demonstration project.

Below: Garry Aney's twelve-strand tow rope, and a sample of the singles.



the flax under tension while I boiled it. To dry the yarn, I put the can in the sun and rotated it periodically. I knitted right off the can, which pivoted nicely at my side. I knitted on size 0 (2.25 mm) needles, using the suggestion on page 15 of Mabel Ross' *The Essentials of Handspinning* to choose a needle size equivalent to two strands of your knitting yarn."

Cindy hates sewing seams, so she cast on as for double-knitting (see the Fall 1991 issue of *Spin·Off*, page 44) and knitted the bag on four double-pointed needles. She doesn't dye, so for color, she threaded red ribbon through holes made by working openings with k2 tog, yo. The bag is lined with black fabric and has a hook-and-loop–tape closure. The lined bag is sturdy enough to stand open while Cindy fills it with her lens supplies.

Not all flax is fine . . .

Today's spinners often focus on fine yarns, but traditionally flax was used for a wide variety of household and farm textiles. At the Farmer's Museum in Cooperstown, New York, Garry Aney dry-spun tow on an antique tow wheel, and used an antique rope-making jack and a swivel hook to make a twelve-strand tow rope. Four Z-twist singles were Z-twisted together into tight plies, then the three plies were S-twisted to make the final rope. Other staffers lent a hand during the plying process to keep the strands from tangling. The finished rope is thirty feet long.

The Deep Cove Weavers' and Spinners' Guild, of Sidney, British Columbia, demonstrates every summer at their local museum, situated overlooking the blue waters of the Straits of Georgia. In 1990, the group decided to spin flax: in part because few were familiar with the fiber, and in part because of the appealing drama of spinning on the museum's lawn, with well-dressed distaffs and ribbons blowing in the sea breezes.

As theater, the change from wool to flax was very successful. Traffic slowed to a stop outside the museum every Tuesday afternoon. As a learning project, the group effort taught skills and made an ecological statement, because the spinners decided to make string bags from their flax, to serve instead of plastic or paper bags.

The spinners bought Euroflax line flax in two shades of environmentally friendly green, and got off to an energetic start when the smooth, lustrous fibers arrived. Guild member Dianne Cross served as a resource in techniques and equipment and

conducted a short introductory workshop. Every participant had to supply a distaff, and many used a design devised by Dianne's husband for a light, strong, easily collapsible version.

Before dressing, the top of the distaff was padded with paper: tissue paper, covered with brown paper, fastened with masking tape. Then the spinners shook the fibers out from their stricks, tied one end of the fibers to their waists with ribbon, and layered the fibers across their laps in a fan pattern. Removing the spread fibers from their laps, they laid them on a flat surface and rolled the fibers onto the end of the distaff, as shown in *Handspinning Flax.*

With water pots or sponges at the ready to wet their fingers and yarn, the spinners treadled in the S direction with just enough brake to give some tension. They drew out the fibers and smoothed them away from the orifice. Every Tuesday, their skills improved . . . as they discovered that a well-dressed distaff ensures easy drafting, that twist must be kept away from the unspun fibers, and that habitual drafting techniques must change to accommodate flax.

When the time came to construct the bags, the members came up with a broad variety of patterns: knitted, macraméed, crocheted. But they have noticed that many of the bags don't go to the store—they carry raw fiber to spinning nights! ❖

Resources

Davison, Marguerite Porter. *A Handweaver's Pattern Book.* Revised edition. Swarthmore, Pennsylvania: Marguerite P. Davison, 1975.

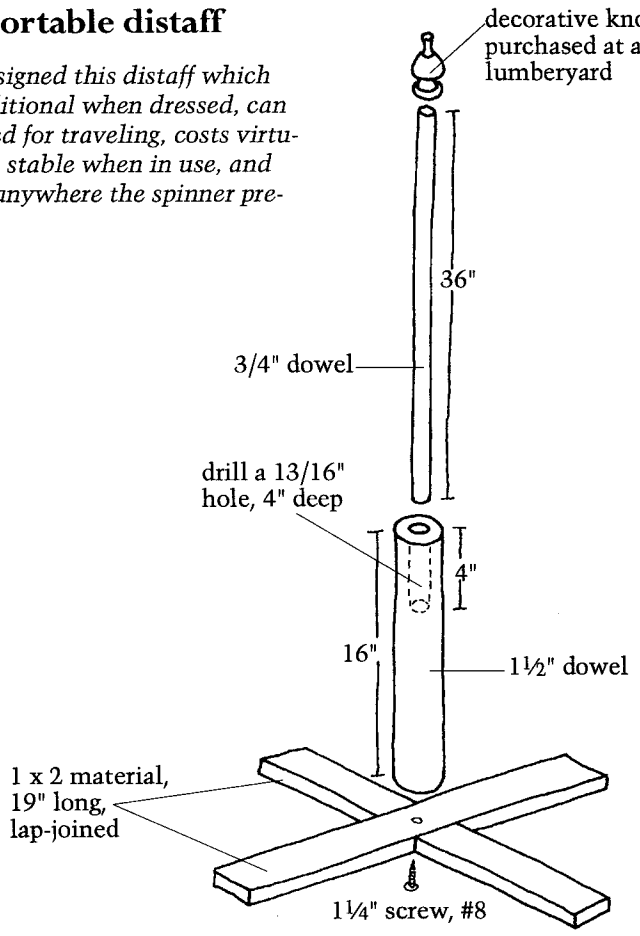
Linder, Olive and Harry. *Handspinning Flax.* Phoenix, Arizona: Bizarre Butterfly, 1986. Dressing the distaff: pages 19–20.

Ross, Mabel. *The Essentials of Handspinning.* Kinross, Scotland: Mabel Ross, 1980.

Walker, Barbara. *A Second Treasury of Knitting Patterns.* New York: Macmillan, 1981.

A simple portable distaff

Larry Cross designed this distaff which looks very traditional when dressed, can be easily carried for traveling, costs virtually nothing, is stable when in use, and can be placed anywhere the spinner prefers to have it.



Knitted Summer Top

by Val Slemko

(shown on page 53)

Materials: Tow flax. Singles spun S, plied Z. The two-ply measures about 22 wraps per inch. The completed yarn was boiled to give it a final finish; see the text under "Sweaters," above, for more details. The finished vest used about 8 ounces of yarn.

Size: Small (chest measurement 32–34").

Equipment: Circular knitting needles, size 2 (3mm), or correct size to achieve gauge.

Gauge: 13 stitches/2".

Stitch pattern: This is Fascine Braid, from *A Second Treasury of Knitting Patterns* by Barbara G. Walker (New York: Macmillan, 1981), page 217. The pattern works on a multiple of 8 plus 4 stitches, and is used with both circular knitting (body) and back-and-forth rows (yoke area). Consequently, two sets of instructions are given. For the purposes of this garment, both are written so that the outer four stitches in each row are stockinette stitch, without the pattern crosses.

Body: Cast on 200 stitches, join for circular knitting and work k1, p1 ribbing for 2". Increase evenly to 210 stitches on the last round of ribbing. Place markers to mark the sides, using 108 stitches for the front and 102 stitches for the back.

The back is knitted plain throughout (stockinette). The front has a total of thirteen braids. Work 28 rounds, with the Fascine Braid pattern on the front, then eliminate one braid from each side of the front by working *round 29* as follows: k12 (pattern repeat until 12 sts remain), k12. Knit across back sts.

Continue, working the established pattern on the front, for a total of 28 more rounds. On *round 57*, again eliminate one braid from each side of the front. Repeat this once more; seven braids remain.

Underarm shaping: Cast off 8 sts at end of round and 8 sts at beginning of next round; work across front, and cast off 8 sts on *each* side of left marker. Knit across back sts (92 sts remain on front and 86 sts remain on back).

At this point, join a second ball of yarn and work the front and back separately. You will need to work back and forth on each section; see the instructions above for working the pattern stitch in rows.

Upper body shaping: Throughout the upper body shaping, the first stitch of each row is slipped, and the first and last 2 sts of each row are kept in garter stitch.

Decrease row: Sl1, k1, ssk, work pattern across the row until 4 sts remain; k2tog, k2 (90 sts remain on front). Knit across back sts (86 sts).

Turn work. *On back:* sl1, k1, purl across until 2 sts remain; k2. *On front:* sl1, k1, work pattern across until 2 sts remain; k2.

Work 4 more rows, with pattern on front and stockinette on back, keeping outer 2 sts of each section in garter stitch.

Work another decrease row on both front and back sts (88 sts remain on front, 84 sts remain on back).

Decrease in this manner on every other row until 44 sts remain on the front and 40 sts remain on the back. *At the same time,* eliminate one braid from each side of the front twice more (three braids remain).

Work even until work measures 8 1/2" from underarm.

Neckline: Join neck at right side and work in k1, p1 ribbing, but keep the pattern of three braids up the front. Work 1" of ribbing, forming one yarn-over buttonhole on the second ribbing row, and another one on the next-to-last ribbing row. Cast off loosely.

Sew two small buttons opposite the buttonholes to close the neckline.

Finishing: Soak the top in warm water, then roll it in a towel to blot out excess moisture and lay it flat to dry.

Fascine Braid, adapted for circular knitting:

Rounds 1 and 3: K4, *p4, k4, repeat from * across round.

Round 2: K4, p4, *(sl1 wyib, k1, yo, pass slip st over knit st and yo st) twice, p4, repeat from * across round, end k4.

Round 4: K4, p4, *k1, sl1 wyib, k1, yo, pass slip st over knit st and yo st, k1, p4, repeat from * across round, end k4.

Fascine Braid, for row knitting:

Rows 1 and 3 (wrong side): P4, *k4, p4, repeat from *.

Row 2: K4, *p4, (sl 1 wyib, k1, yo, pass slip st over knit st and yo st) twice, repeat from *; end p4, k4.

Row 4: K4, *p4, (k1, sl 1 wyib, k1, yo, pass slip st over knit st and yo st, k1), repeat from *; end p4, k4.

Abbreviations

k	knit
k2tog	knit 2 stitches together
p	purl
sl	slip
ssk	slip 2 stitches separately as if to knit; insert lefthand needle into these stitches *together* as if to knit, and knit them off as one
wyib	with yarn in back
yo	yarn over

THE Flax Museum

by Mary A. Chase

ANY LINEN enthusiast traveling in northern Europe will be rewarded by taking the time to visit the astonishing Nationaal Vlasmuseum in Kortrijk, Belgium, where the history of flax cultivation is depicted in remarkably life-like dioramas.

The city of Kortrijk (*Courtrai* in French) lies on the river Lys, in the Belgian province of West Flanders. This is the heart of a great flax-producing region which extends into northern France. Kortrijk has been a center and market for flax and linen since the Middle Ages, so it's a fitting place for this museum. But credit for developing the museum in just this way goes to Bert Dewilde, its curator, who has spent more than twenty years on the project.

The flax museum, which opened in 1982, is housed in the handsome stone buildings of an old farmstead on the outskirts of town. It features a series of rooms peopled with life-size sculpted figures demonstrating all the activities related to flax—sowing the seeds, weeding, harvesting, processing the fibers, spinning, weaving, and even lace-making. The figures are set in appropriate interiors or against painted backgrounds of the farm landscape or river. Each figure is modeled after a specific individual, which makes for breathtaking realism.

Until near the end of the nineteenth century, flax cultivation and processing—retting, scutching, and hackling was carried on by individual households. Retting was done in the river Lys, and Lys-retted flax was the best in the world. Mechanization came much later to the flax industry than to the cotton industry; not until 1880 was home flax processing replaced by small industrial operations. In the museum you can see all the old hand-powered equipment, as well as many early mechanical devices.

Retting in the river has been banned on ecological grounds for some time, and demand for the top-quality fiber produced by water retting has declined because of its high cost. So the Lys, the "Golden River," is no longer lined with stinking crates of retting flax or picturesque rows of bundled flax drying in the sun. But it still flows through the city of Kortrijk, spanned by the lovely Broel bridge with its twin medieval towers. On the quay stands the Museum voor Oudheidekunde en Sierkunst (Archeological and Decorative Arts Museum), which displays a fine collection of Flemish linen damask, including many pieces from the seventeenth and eighteenth centuries. Entire collections of Flemish damask were lost during World War II, but scraps were saved and have been restored, and other pieces have been collected. These fabrics are beautifully displayed, with lighting that accentuates the white-on-white patterns.

You can have a light lunch with a Flemish beer at the pub in the farmhouse on the flax museum grounds, and in town near the Broel towers is the Hotel Broel, a fine small hotel where you can stay comfortably and enjoy an excellent dinner.

Only a little more than fifty miles west of Brussels and conveniently near the exit from the motorway E17, the Nationaal Vlasmuseum is open daily from March to November. It's well worth a stop if you are travelling through Belgium or northern France. Distances are not long in this small country, and you may even spot a field of flax in bloom! ❖

Bert Dewilde, curator of the flax museum, has also written an outstanding book, Flax in Flanders throughout the Centuries: History, Technical Evolution, Folklore. *This large-format, full-color book describes all the steps in planting, growing, harvesting, and processing flax. It doesn't describe how to spin flax or how to use linen yarns.*

Every page of the book is illustrated with photos or drawings. Many of the black-and-white photos come from the late 1800s and early 1900s, and show workers using the old tools. The book also contains color reproductions of paintings, etchings, engravings, and other artwork from the nineteenth and earlier centuries. The accompanying text is fascinating because, beyond the technical and historical data, it vividly describes the lives and emotions of the farm families and flax workers. Any spinner, whether or not she spins flax, would enjoy this book.

Flax in Flanders Throughout the Centuries: History, Technical Evolution, Folklore, by Bert Dewilde. English translation by Katrien Douchy. Tielt, Belgium: Lannoo, 1987. 216 pages, hardbound. ISBN 90–209–1498–7. Available from the Nationaal Vlasmuseum, E. Sabbelaan 4, 8500 Kortrijk, Belgium. Price is 1950 Belgian francs plus 230 francs postage; total 2180 francs. The exchange rate is now about 34 BF to US$1.

Life-size figures from the Nationaal Vlasmuseum in Belgium.

FLAX

from Seed to Fiber

by Mary A. Chase

FLAX—WHAT IS IT? A few years ago I was taken aback to be asked that question when speaking to a group of presumably well-educated adults. I've since come to realize that few people today know that flax is what linen is made of. Perhaps one reason is that most of the fabrics sold today as bed "linens" and table "linens" are made from polyester or other synthetics, not from *real* linen!

Flax is the common name for a versatile plant, the second part of whose Latin name, *Linum usitatissimum*, means "most useful." Some varieties of flax are grown for their oil-rich seeds (which are used as food and medicine, and are pressed to yield linseed oil), but spinners grow flax for its fiber. Processing separates the longer, stronger fibers, called *line* or *line flax*, from the shorter, coarser fibers, called *tow*. These are spun into linen or tow yarns, and woven (or knitted) into linen fabric.

Flax and linen have many unique characteristics. The fibers are long and very strong, even stronger when wet than when dry. Since prehistoric times, this quality has been invaluable when the fiber has been used to make fishing lines and nets, hunting snares, and boat sails and rigging. Flax is hygroscopic—it absorbs moisture from the air, or perspiration from your skin. That makes linen clothing comfortable to wear in hot climates. Linen sheds soil and dirt, and it's easy to wash in hot soapy water. Linen wrinkles easily, because the fibers are inelastic, but when properly handled, it has a luster that rivals silk. It is a material of great elegance and beauty.

Once a predominant fiber, linen was overtaken by cotton during the Industrial Revolution. The invention of the cotton gin and the spinning frame meant that cotton yarn could be produced much more efficiently and cheaply than linen yarn. Since World War II, linen's remaining uses have been to a large extent usurped by synthetic fibers. Most of the yarns and fabrics for which linen is uniquely suitable have,

Opposite: Garden plot of flax in bloom. Above: Close-up of flax in bloom, about 60 days after sowing.

of economic necessity, declined in quality or simply ceased to exist.

When we think of the human conditions under which they were produced, we may not regret that the elegant Irish double damasks of our grandmothers' day or the gossamer French handkerchief linens of pre-World War II are gone. Let's hope that someday a better way will be found to produce such fabrics. In the meantime, we can try our hands at the old ways.

By using traditional hand methods, it's quite possible to plant, raise, harvest, and process small quantities of flax for hand-spinning. The process is laborious, but if you start with a small patch and round up a few fellow enthusiasts to help, you'll find the transformation is very exciting and the end product very beautiful.

Preparing the plot and sowing the seeds

Flax is an annual plant that requires a growing season of about 90 days from sowing to harvest. It tolerates a wide range of climates and can be grown in most of the United States. (Historically, flax has been grown from the Nile delta in Egypt to northern Russia and Scandinavia.) It isn't particular about soil conditions, although heavy clay is not suitable, nor is desert-dry sand.

For a first attempt, my experience suggests a plot of about 15 by 15 feet. A pound of seeds will sow a plot that size. With any luck, you'll harvest plenty of flax to process, but not so much as to discourage you. It's impossible to estimate the yield more closely because there are so many variables—soil, climate, weather, and, not least, the skill of the grower and processor.

Choose a site in full sun but protected, if possible, from strong winds. Historically, flax was often grown as the first crop on newly broken ground, because it leaves the soil in good condition for subsequent crops. You could till an area of lawn or pasture, or set aside part of the vegetable garden. It's recommended that you rotate flax with other crops over a five- to seven-year

Above: *Bundles of flax straw hanging to dry in Maine, before rippling.*

Right: *Mary Chase rippling flax. Photo by Jean Heavrin.*

interval; repeated planting in the same spot is an invitation to diseases and pests.

Breaking ground and fertilizing in the fall gives you a head start in spring. Compost, aged manure, or other organic fertilizers generally supply enough nutrients for flax. Nitrogen-rich fertilizer is undesirable as it promotes rank growth that yields coarse, weak fibers, and the plants are prone to lodging (flopping down on the ground and making a tangle that's hard to harvest).

Till again as early as possible in the spring and let the first crop of weeds come up. Till them under, and sow your flax. Broadcast the seeds evenly and thickly. Sow half in one direction and the other half at right angles. The goal is to crowd the plants so they will grow tall and slender. Rake the seeds gently into the soil, then use a roller or wide plank to firm the surface. With the spring moisture still in the soil, the seeds will soon sprout.

Below: *Mid-July: dried flax, already rippled.*

Tending and harvesting the crop

When the flax plants are 6 to 8 inches tall, go through the plot and hand-pull all the weeds. Thoroughly weeded now, the flax will crowd out later weeds. You can step lightly on the plants at this stage, knowing that they will recover and bounce up again. Later, it's impossible to walk through the plot without damaging the stems.

Optimum fiber development requires a steady supply of soil moisture throughout the growing season. Drought at any time is a disaster—the plants may survive, but the yield and quality of both fiber and seeds are irreversibly reduced. If you need to water other plants in your garden, irrigate the flax also.

About 60 days after sowing, there will be a flush of bloom. By now up to 3 feet tall, each slender, bright green stem will carry a few pairs of nodding light blue (or white in some varieties) flowers, which open for only a few hours at midday. The blossoms soon shatter, and are followed by five-chambered seed capsules which swell to the size of peas.

As the seed capsules ripen, the lower leaves of the plant begin to wither. By 90 days after sowing, the lower third of the stalk has yellowed and the fibers are at optimum development—strong, fine, and

still soft. This is the recommended harvest time. You can harvest up to two weeks earlier—the fibers will be finer and softer, but less strong, and even after retting, will have a greenish color. Waiting longer gives time for more seeds to fully ripen, but the later you harvest, the coarser the fiber.

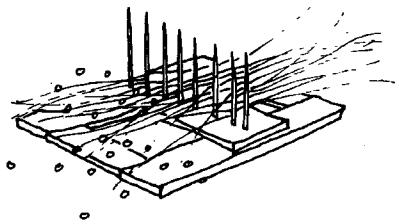
The best way to harvest flax is to pull up the plants, roots and all. Grasp a handful of stems, give a sharp tug to uproot them, and knock the dirt off the root ends. If there are any weeds, remove them. From this point on, it is very important to keep the straw—another word for the harvested plants—in order, with the root ends butted and even. Tangled straw is unmanageable and produces only waste.

After pulling, the straw must be dried. One method is to criss-cross four bundles, tie them together near the root ends, and hang them, top down, over a rack. Another is to prop several tied bundles against one another to stand, root down, in the field. Light showers won't damage the straw, but it must dry out again before the next step.

When thoroughly dry, the straw is rippled to remove the seed capsules, which have continued to ripen while drying. The flax can then be stored in a dry place until you are ready to ret it. (Storing flax straw with the seed bolls intact attracts mice, whose activities damage the fiber.)

Rippling

A ripple is a tool with long steel or wooden tines set close together like a rake. Before rippling, spread a cloth on the ground underneath to catch the seeds. Take a handful of straw by the root ends and draw the tops through the ripple to comb off the seed bolls. To save seeds for next year's sowing, gather the bolls and flail or crush them in a sack with a mallet or roller, then blow away the chaff. Flax seed remains viable for years if stored in a



Flax ripple

Sources of fiber flax seeds

To grow a crop of fiber flax, you'll need fiber-flax seeds. Don't bother planting the kind of flax seeds you can buy at health food stores—that kind of flax is grown for its oil-rich seeds, not for its fiber.

Several varieties of fiber flax are available. 'Hera' and 'Ariane' are imported from Holland, 'Natasja' and 'Viking' from Sweden; 'Cascade' comes from Washington state, 'Regina' from Canada, and 'Norfolk Queen' from Virginia. Which one is best? "It's hard to say," writes Betty Burian Kirk in Sauk Village, Illinois. Betty has tried five varieties, and they've all grown well, weather permitting. But she's not ready to say which variety spins best or produces the finest fibers. There are too many variables to consider. Growing conditions, retting time, and breaking and hackling all affect fiber yield and quality.

You can buy fiber-flax seeds from these mail-order suppliers. Supplies are sometimes limited, so write first to inquire about availability and current price. Enclose an SASE.

Abundant Life Seed Foundation, P. O. Box 772, Port Townsend, Washington 98368 ('Cascade').

Mavis Atton, The Shepherd's Den, Irish Blocks Road RR1, Annan, Ontario N0H 1Z0, Canada ('Natasja').

Euroflax, Inc., Box 241, Rye, New York 10580 ('Viking').

Frederick J. Fawcett, Inc., 1338 Ross Street, Petaluma, California 94954 ('Viking').

Landis Valley Museum Heritage Seed Project, 2451 Kissel Hill Road, Lancaster, Pennsylvania 17601 ('Ariane').

Dale Liles, 2142 Cherokee Blvd., Knoxville, Tennessee 37919 (heirloom variety).

Otto Richter's, Goodwood, Ontario L0C 1A0, Canada ('Regina').

Southern Exposure Seed Exchange, P. O. Box 158, North Garden, Virginia 22959 ('Ariane' and 'Norfolk Queen').

Mail-order suppliers of flax-processing tools

Write for information and price lists.

Glimåkra, 1338 Ross Street, Petaluma, California 94954.

Alden Amos, 11178 Upper Previtali Road, Jackson, California 95642.

ROBIN BENSON

A flax break, at rest (left) and being used by Robin Benson (right).

cool dry place. Freezing temperatures will do it no harm.

Retting

This is the most challenging part of processing flax. The conditions are difficult to control, and it takes practice to judge when the retting is complete and should be concluded. A look at the anatomy of a flax stem will help you understand the retting process.

In cross-section, a woody or pithy core, hollow in the center, makes up the bulk of the stem. Surrounding it is a thin layer where the fibers occur. Outside that is the cuticle or bark. What looks to the naked eye like a single flax fiber is actually composed of many "elementary" or "ultimate" fiber cells. These individual cells—each about the size of a single cotton fiber—are elongated and finely tapered at the ends. Bundled side by side and end to end, they overlap to form continuous strands from the roots to the top of the plant. The fiber cells are glued together within these bundles by a substance called *pectin*. Another kind of pectin binds the fiber bundles to the bark and the core of the stem. The goal of retting is to dissolve the latter compound without dissolving the former.

See retting photos on page 69.

The two traditional methods of retting are *dew retting* or *land retting*, done on the ground; and *water retting*, done in still or slowly moving water. Dew retting is accomplished by the activity of fungi. Water retting occurs due to bacterial action.

Dew retting. Retting on land is comparatively easy. Select an area of grass or stubble that has been mowed, or land which has been closely grazed. The site should be unshaded, away from falling leaves, and, of course, protected from wandering animals and other traffic. The straw should lie close to the ground, but not on bare soil. It will absorb moisture from the ground and from dew and rain, and sun will warm and dry it during the day. Here in New England, early fall is a good time for retting. If your flax isn't ready in time, you can store the dry straw until the following year.

Spread the straw thinly and evenly in rows. Be sure the root ends are aligned. If high winds are likely, weight the rows with rake handles or smooth sticks. After a week or ten days, turn the flax by sliding a rake or broom handle under a group of stems, lifting them up onto their root ends, and flipping them over. Flip one row at a time, clearing a place for the next row, and proceeding across the field. With care, you can turn the flax without messing up the rows.

Ground and air temperatures vary and are impossible to control, so you'll have to test the progress of the ret from day to day. In my experience, the process usually takes between six and eight weeks. The straw will gradually turn a lighter color, and silvery wisps of fiber will come free. The pith will separate in places from the bands of fiber, and curve into characteristic "bows." Take stems from several different places and break them over your finger. When retting is sufficient the pith will

break with a little snap and fall away, but the strands of fiber will stay intact. As soon as you think the retting is complete, take up the straw to dry. If the process goes too far, the fiber bundles disintegrate into elementary fibers. Then you'll have no spinnable fiber left—all is lost.

Water retting. Water retting can be done in a pond, at the edge of slowly moving water, or in a tank. It's important to have some water movement or exchange. If you use a tank, there must be a way to drain and add water. An old bathtub is useful for small batches.

Don't tie the bundles of flax too tightly, because water has to move through the straw. You'll need to improvise a system of weights to keep the bundles submerged. As fermentation takes place, gasses are released. Because these gasses lift the bundles, you may have to increase the weights.

When fermentation is underway, there will be a sour, yeasty smell. Begin to draw off a third of the water each day, replacing it with fresh water at the same temperature. Test the progress of the ret daily by breaking a few stems. The time required for water retting depends on the water temperature. In water kept at 95°F, retting takes only three to four days. At 62° to 68°, it takes ten to twelve days. After the retting is complete, rinse the straw with fresh water to halt the bacterial activity.

After dew or water retting, the straw must be dried again. A traditional, effective, and very pretty way to arrange flax for drying is to gather a large handful of straw and, holding it firmly near the top, fan the root ends out in a circle on the ground. Give a slight twist to the tops and they will hold each other up, and the straw will dry nicely if the weather cooperates. When the straw is completely dry, store it indoors until you're ready to continue with the processing.

If you should later decide that the retting was incomplete, you can put the straw back for a second ret. In fact, double retting—water retting followed by dew retting on the ground, or water retting repeated a second time—used to be common practice in some flax-growing areas, because it was considered to give the best results.

Breaking and scutching

The flax must be thoroughly dry for successful breaking and scutching. These jobs are very dusty, so it's best to do them outdoors. Choose a still, clear, dry day.

Breaking (also called *braking*) requires a large tool—a *flax brake*—which has two sets of blades that fit together. Usually there are three blades in the bottom, or bed, and two in the top. The bed and top are hinged together at one end, and the top has a handle at the opposite end.

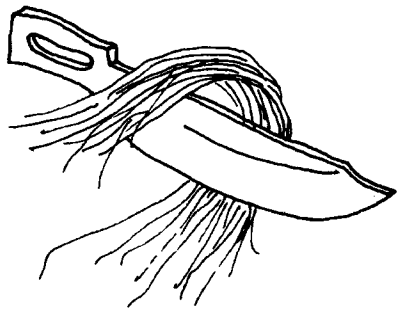
To use the brake, grip a handful of straw very firmly by the root ends and lay it across the blades. Use a chopping motion to close the top blades against the bed. Hold tight so that none of the straw slips out of your grasp. After breaking the top ends, do the root ends.

Chopping at the flax stems between the blades breaks the brittle pith and bark without injuring the flexible strong ribbons of fibers. Already loosened from the fibers by the retting process, most of the bits of pith and bark, called *shives* or *boon*, fall to the ground. The bits that remain after breaking will be removed by *scutching*.

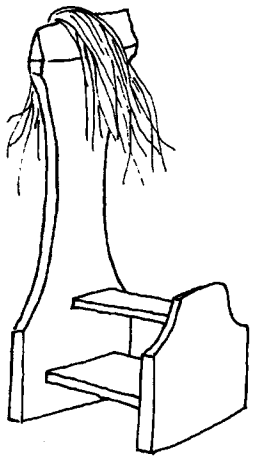
A *scutching block* is a smoothly sanded vertical plank with a very smooth top edge. It's used with a large wooden blade called a *scutching knife*. Having already broken away the bulky pith of the flax stems, you can combine two or three handfuls in one for scutching, being sure to match the root and top ends. Take a handful by the root ends and hold it just over the top of the block, then strike a glancing blow with the scutching knife to slough off the clinging bits of boon. Strike the tips first and work your way up. Turn the bundle as you work, opening it out to expose every bit of it. Then reverse, holding the tops and scutching from the root ends up.

The scutching process should produce clean ribbons of fiber, completely free of all woody bits. When breaking and scutching go well, you begin to see what a truly beautiful material flax is. The bundles of scutched fiber look silvery and lustrous and have a wonderful weighty feeling. Give each one a few twists and lay it neatly aside.

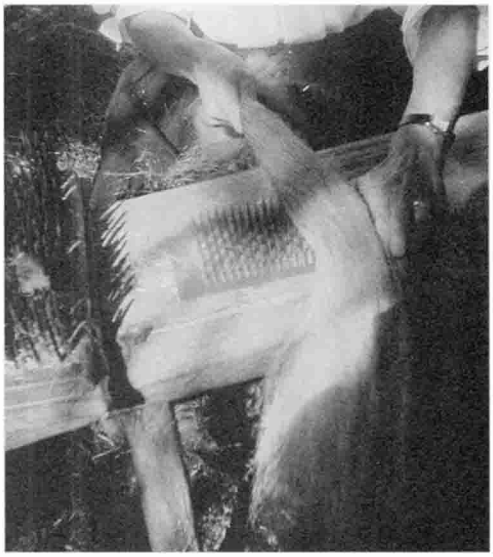
If woody bits refuse to separate from the fiber, it's an indication that the retting was not complete. Put the rest of the straw back to ret again. On the other hand,



Scutching knife

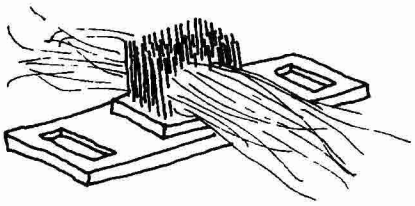


Scutching block



ROBIN BENSON

Flax being hackled.



Hackle

if the fiber falls apart in your hands, it is over-retted. There's nothing you can do to retrieve it for spinning, although it might be useful in papermaking.

The waste from breaking, consisting of boon or shives, is not useful to us (although it is sometimes used industrially to make particle board), but the waste from scutching, even when skillfully done, does have fiber in it. Although short and coarse, this fiber, called *scutching tow*, can be spun into a rough-textured yarn.

Hackling

Although breaking and scutching require dry flax and dry air, hackling can be done on humid days. Remember that flax absorbs moisture readily from the air, and that flax fibers are stronger wet than dry.

Hackles, also known as *heckles* and *hetchels*, have rows of steel pins or teeth set into a wooden base. Depending on the number, size, and spacing of the teeth, hackles are graded as coarse, medium, and fine. It's common to use them in sequence. Coarse antique hackles may sometimes be found in antique shops, but old fine hackles are harder to find. Fiber supply shops sell a few grades of modern flax hackles. Most are imported from Sweden.

Hackles have dangerously sharp teeth, so be careful in using them. Take a handful of fibers by the root ends and gently flip just the very tips of the fibers onto the hackle. Don't try to pull the fibers down into the teeth—just draw them across the top, very lightly. Working gradually, flip the fibers a little farther across the tines with each pass, then draw them back. When you reach the center of the fibers, reverse. Take hold of the tip ends and gradually comb from the root ends to the center. Always keep a firm grip and don't let the fibers pull out of your hand.

At each stage in the hackling, from coarse to fine, there will be *tow*—short fibers—left in the hackle. This will be much finer than the scutching tow. It should be graded and can be spun, as you spin carded wool, into very handsome yarns.

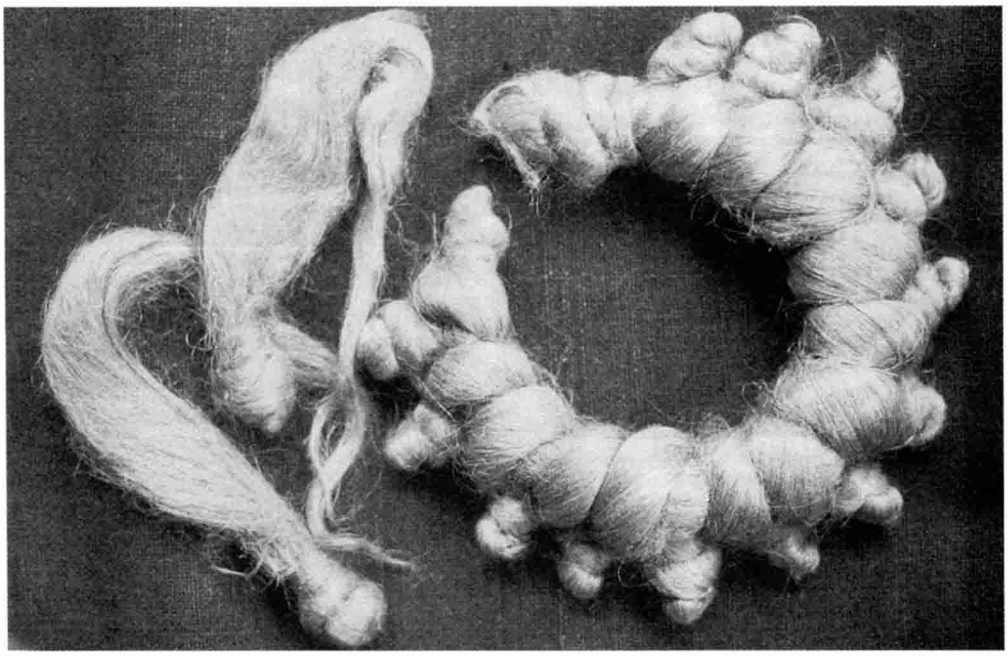
If you store flax in a dry, dark place, out of harm's way, it will keep indefinitely. Storing tow is no problem as far as tangles go; you can stow it in a basket, box, or bag. Bundles of hackled line flax, called *stricks*, must be handled carefully and arranged in a way that keeps the fibers in order. A common method is to twist each strick, let it double (ply) back on itself, and wind the ends together. In Sweden, I've seen line flax twisted into what look like lovely braided crowns of hair; each nesting section is a small strick. Stored in attic trunks where they may have lain for 75 to 100 years, these are still in perfect condition. Just brush off the dust and shake the fibers loose. Old flax is good as new—perhaps even better. ❖

Mary Chase was introduced to flax processing and spinning in Sweden, where she spent six months at a weaving school in 1972. Since then she has returned to Sweden many times for workshops and classes, and she has grown flax at her home in Maine for many years. Mary used to import and sell Swedish fiber flax seeds, but in 1991 she turned over the fiber-flax seed business to the Landis Valley Museum's Heritage Seed Project.

Far left: *Mary's flax—land retted (left) and water retted (right).*

Left: *(left to right): Finnish tow yarn spun from scutching tow, Swedish handspun line (1983), and Swedish line from Helsingland, c. 1920—very fine quality.*

Flax retting on the ground in Sweden.

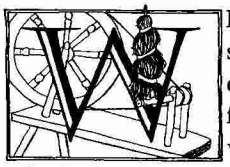


Lockakrans or linkrona.
This is a flax crown, or wreath of line flax ready for spinning. Small "locks" of flax are twisted separately (to make the bumps at the edge of the crown), then twisted around each other in series to form the crown, which keeps the flax from becoming tangled between the times when it is prepared and when it is spun. When wanted, each lock can be separated, shaken out, given a final hackling or brushing, and put on the distaff.

Quick and easy!

Spinning FLAX Roving

by Claire Westerink



HEN THEY watch me spinning flax roving at conferences and fiber festivals, people always say, "You make it look so easy."

"Give it a try," I respond, encouraging them to get behind the wheel.

After spinning a few yards, they look surprised and exclaim, "It really *is* easy!" Indeed, spinning flax roving is no harder than spinning wool. I find it much easier to spin roving than to spin the long fibers of line flax.

Euroflax roving comes from a mill in Belgium, where the fibers are cleaned, dyed, cut, carded, and drawn into a continuous strand. The roving consists of fibers ranging between two and eight inches (between 5 and 20 cm) long. I recommend spinning it from the fold. It's much easier to control the fibers this way. If you try to spin from one end of the roving, the fibers tend to pull apart.

Starting at one end of the roving, I pull off a piece about six to eight inches (between 15 and 20 cm) long, split it in half lengthwise, fold one half, and hold it in my left hand.

With my right hand, I pull out some fibers, drafting a few inches forward toward the wheel. Then I slide my right hand back along the yarn, smoothing down any stray fibers as the twist catches. The fibers in flax roving are fairly short, and don't have any crimp, so it takes plenty of twist to hold them together. You need to hold the yarn a little longer than you would hold wool before letting it wind on, to let the twist build up.

I've got a little pot for water mounted on my wheel, and I dip my right fingers in the water every minute or two. The moisture helps to soften the fibers and "glue" them down, making a smoother yarn. Wetting isn't essential, but I think it's worth the trouble.

Dyed flax roving is ready to spin into solid or multicolored yarns for knitting or weaving.

To spin a multicolor yarn, take two or more pieces and fold them together in your hand, pulling from each as you draft. Or you can spin a variegated yarn by spinning one color at a time, but changing colors from time to time. Although I prefer to knit with pure linen (I think it holds its shape better than blended yarns), you can combine this flax with other fibers, such as silk or cotton, by carding them together. It's fun to work with the colors, and the carding is easy because the fibers are short.

After spinning, I ply from bobbins to make two-ply yarn for knitting. I usually spin about the equivalent of a commercial 8/2 linen (1200 yards per pound). Of course, you can spin much finer yarn if you choose, and make a two-ply or singles yarn to weave as weft. (I don't recommend spinning the roving for warp; the yarn might not withstand the abrasion by the heddles and reed.)

You can knit with yarn straight off the bobbin—you don't need to boil it, or even wash it. If the yarn is plied, you don't need to set the twist. The fibers were thoroughly cleaned before they were dyed, and the colors don't run or fade, even in hot, soapy water. And you don't need to pre-

Claire pulls a short piece off the end of the roving and splits it in half, then folds it in her left hand. With her right hand, she drafts a few fibers at a time toward the orifice, then strokes backward to smooth down stray tendrils as the twist enters the yarn.

She keeps the fingers of her right hand wet by dipping them in the little pot of water that hangs from the front of her wheel.

shrink flax yarn, because its shrinkage is minimal.

After knitting or weaving the yarn, don't hesitate to machine wash and dry the fabric. The more you wash linen, the softer it gets. My favorite sweaters have been washed again and again, and they feel better all the time. ❖

Claire Westerink learned to spin and weave in her native Holland. When her family moved to New York eight years ago, she first imported flax for her own use, then started the Euroflax business to supply other spinners and weavers. All photos are by Rita Buchanan.

Drafting from the fold gives you more control over the fibers and makes it easier to produce a consistent yarn.

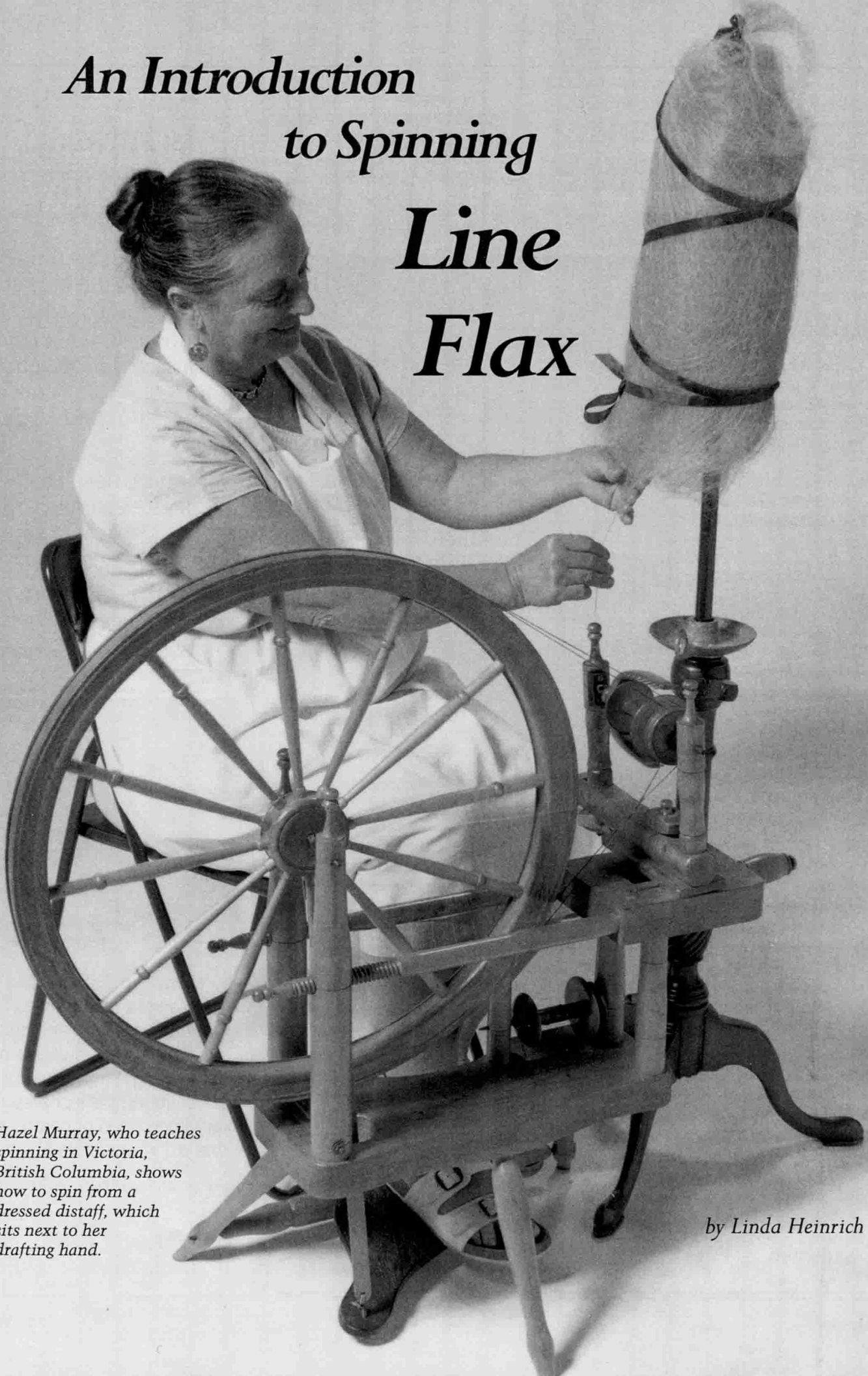
To join on, hold the leader over the center of the folded fibers and overlap by several inches. Draw out just a few fibers and be sure they twist securely with the leader and don't just wrap around it.

Line flax

Claire's approach to a strick of line flax is as direct as her way of handling roving.

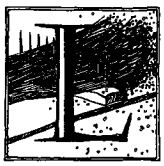
The easiest way to spin a flax strick is to bundle it in a towel and go. For the distaff approach, see pages 74–77.

An Introduction to Spinning Line Flax



Hazel Murray, who teaches spinning in Victoria, British Columbia, shows how to spin from a dressed distaff, which sits next to her drafting hand.

by Linda Heinrich



LINE FLAX—composed of the longest, most lustrous, and best flax fibers—is available in beautiful natural creams, tans, silvers, and grays, and in a variety of lively colors. It's usually prepared in bundles called stricks, which weigh between four and eight ounces and can be up to 42 inches (107 cm) long. Stricks are usually twisted or plied for storage. Opened out, a strick is a lovely arrangement of parallel fibers.

As in all fibers, there are different qualities of flax. Some is finer, some is coarser. Also, there are color variations, however slight, among different stricks. These differences always become more conspicuous after the fiber has been spun into yarn. If you need more than one strick's worth of fiber for a project, use skeins spun from one strick for warp and skeins from another for weft, or knit alternating rows from the two variations. Label the stricks and skeins to keep track of which is which.

Because the fibers are so long, line flax requires special handling to keep the fibers organized and avoid tangles. A convenient modern method is to roll the strick in a terry-cloth towel and draft the fibers that project from one end. Traditionally, however, spinners have used various types of distaffs to hold the fibers in position for drafting. The simplest distaff is just a pole or rod, with the strick of fibers tied at its top. Another type is a wooden comb; the fibers are mounted in the teeth.

My favorite variation on the distaff is the cage or cone-type. You can make a simple cage distaff by bringing the top branches of a sapling together and tying them securely. You can also fashion a cone distaff from heavy brown paper, stuffing it with crushed paper so it will hold its shape.

Dressing the distaff

Putting the fibers in place is called *dressing the distaff.* The goal is to separate the fibers so there are no clumps, and to arrange them in thin layers so you can draft smoothly and continuously.

Dressing a distaff involves spreading out the fibers. It's convenient to do this on a table, where you can leave the flax in place if you are interrupted. Some spinners, however, sit in a chair and spread the flax on their laps. Others spread it on the floor. Do whatever is most comfortable for you.

First, spread out a large towel or non-slippery cloth, laying it across the table, your lap, or whatever surface you will be using. Place the strick of flax on the towel and examine it to determine which is the root end and which is the flower end. The fibers at the root end are more parallel and not quite as fine as those at the flower end. Look for a natural division in the strick and pull off between 1½ and 2 ounces. (A 2-ounce portion is about 2 inches, or 5 cm, around when compressed.) Label and store the remaining flax.

Shake the selected portion from each end to open and loosen the mass of fibers and to eliminate any short bits. If the fibers are untidy, some spinners comb the flax with a dog comb or hackle, but this must be done with great care. If the metal teeth dig too deeply into the strick, some of the flax will get stuck and tangled, and may be wasted.

Some spinners prefer to spin from the root end, others from the flower end. I'm not sure that it makes a difference in the yarn, but I prefer to spin from the finer flower ends. To prepare for this, lay the flax on the towel with the root end toward you.

Take a piece of soft ribbon about 2½ yards (230 cm) long and make a slipknot at the midpoint. Slide the knot over the strick and tighten it snugly about 3 inches (8 cm) from the root end. Tie the two ends of the ribbon in a bow behind your waist, and sit with the flax extending in front of you.

The next step is to spread the fibers back and forth into a series of very thin layers, criss-crossing them like a spider's web and fanning them out from the knot at your waist. Extend both arms and work an inch or two (2.5–5 cm) above the tabletop. Start with both arms reaching to the right. Hold the flax in your left hand and move it slowly from right to left, using the palm and flattened fingers of your right

hand to draft and spread the fibers into place. When both arms have swung across to the left, transfer the flax to your right hand and move back from left to right, now using your left hand to smooth and spread the fibers. Continue back and forth in this way. Give the knotted end a sharp jerk now and then to loosen the fibers and prevent clumping.

When all of the flax has been spread into thin layers, untie the ribbon from your waist. Loosen the knot enough to separate and spread the fibers at that point, then retighten it. Bring the distaff to the layered flax, and use the ribbon to mount the knotted (root) end of the fibers to its top. Then lay the distaff at the left edge of the fan. Roll it toward the right and distribute the fan of fibers around the bottom of the distaff. Overlap the two ends of the fan and gently pat the flax to conceal the join.

Set the dressed distaff into the distaff-hole of the wheel or into its support stand. Tidy up the bottom by tucking any loose ends gently underneath. Criss-cross the ribbon from top to bottom and tie it into a bow. Plume out the top bits of flax above the knot. Voila! The distaff is now dressed and ready for use.

Spinning line flax from a dressed distaff

I prefer to spin flax with an S-twist, because flax fibers tend naturally to twist in that direction, but either S or Z is fine. Most of the ancient Egyptian linens were S-twist—the inevitable outcome when a right-handed person propels a spindle down the thigh toward the knee. On the other hand, the linen textiles documented in *All Sorts of Good Sufficient Cloth* were entirely of Z-twist yarns. Industrially prepared singles linen yarns are also Z-spun.

To make a strong, smooth, even yarn, flax must be wet-spun. Moisture "cements" down the fiber ends. This is especially important for warp yarns, which

Hazel shows how to layer a flax strick in preparation for dressing a distaff.

The ribbon wrapped around the distaff holds the flax in order . . . and is pretty!

are subject to the abrasion of the heddles and reed. In the past, saliva was considered the best wetting agent because its enzymes soften the pectin compounds which hold flax fibers together. Some spinners still use saliva to wet their fingers, but I prefer water or flax-seed solution. You can hang a little water container from your spinning wheel, or keep a damp sponge handy.

To make flax-seed solution, simmer 1 teaspoon of flax seeds (any kind will do) in 1 cup of water for 10 minutes and strain. Add more or less water to get the desired consistency; don't make it too thick. This liquid can be kept for several weeks in the refrigerator, or frozen for longer storage. While flax-seed solution is pleasant to use and gives a lustrous look to the yarn, it can disguise the amount of twist in the yarn. You might use too much or too little twist and not realize the problem until after you wash the skein. Experiment with samples before spinning for a project.

Position your distaff and spinning wheel to facilitate the easy withdrawal of the flax fibers. Spinners who prefer to draw out the fibers with the left hand will want the distaff standing on their left, and vice versa. Wear an apron or place a large towel on your lap, and have the flax-seed solution or water nearby.

Attach a long leader yarn to the bobbin—long enough to reach the distaff. Moisten the thumb and fingers of your left hand, take a few flax fibers, and twist them around the leader as you start to treadle. I use the third and fourth fingers of my left hand to draw down the fibers, and use my left thumb and forefinger to pinch the fiber as needed to prevent the twist from extending up into the flax on the distaff. With practice, you learn to control the thickness of the yarn by drafting a consistent number of fibers. Be careful not to let the twist run up into the fibers on the distaff. If that happens, you'll need to stop spinning and untwist the fibers.

While the left hand drafts, the fingers and thumb of the right hand moisten and firmly smooth the twisting yarn, stroking away from the orifice. This right-hand motion has often been referred to as a "roll and squeeze" action. Gradually you'll settle into a rhythm of drafting and stroking. Spinning flax is a pleasure, and you can enjoy many hours of spinning from a distaff dressed with just 2 ounces of fiber.

As you spin, turn the distaff from time to time so the fibers can be withdrawn evenly. Also lower its position as the longest fibers are gradually pulled into the yarn. Re-tie and tighten the ribbon as the quantity of flax is reduced.

Finishing linen yarn

Finishing includes two processes—*setting the twist* and *scouring*. Setting the twist helps stabilize the yarn and makes subsequent handling easier. Some spinners set the twist of the yarn by merely leaving it on the bobbin, or by winding still-damp yarn onto a niddy-noddy and allowing it to dry. Others re-wet and weight a skein or hank of yarn, or steam it while it is under tension on a reel. It's a good idea to remove the yarn from any tensioning device before it's completely dry—drying linen yarn under extreme tension reduces its already-minimal elasticity.

Scouring softens, cleans, and—to some extent—shrinks linen yarn. Scouring is especially helpful if flax-seed solution was used during the spinning process to add body to the yarn. Don't be tempted to wait and scour after you've woven or knitted the yarn. Scoured yarn is nicer to work with, and because it's softer, it "melds" together better in the fabric.

The simplest scouring method is to simmer the skein(s) for several hours in plain water, or water with a squirt of liquid detergent (and a bit of Calgon, if your water is hard). Adding a tablespoon of washing soda (sodium carbonate) per quart of water makes the yarn softer and lightens its color.

Soak the skeined yarn in warm water first, then simmer it in the scouring solution for about two hours. The yarn may float at first but it will gradually sink. After two hours, remove it from the water, which will be quite dirty. Rinse the yarn thoroughly with hot tap water, or simmer it for another hour in clear water. Scouring can be repeated if the yarn isn't as clean and light as you'd like after the first attempt. After the final rinse, squeeze extra moisture from the yarn (or use the spin cycle of the washing machine to remove most of the water).

While the yarn is still damp, take each skein and swing it around by one end, to

straighten and separate the strands. Better yet, undo the damp skein and rewind it onto a niddy-noddy or reel. As you rewind the yarn, use a damp cloth or sponge to smooth down any loose tendrils that were raised by the scouring. When it's dry, take the skein off the reel and admire your handspun linen yarn. ❖

Linda Heinrich has been researching flax and linen for over ten years, and has grown and processed a small crop of flax every year since 1984. Her book, The Magic of Linen: Flax Seed to Woven Cloth, *will be available in July 1992 from Orca Book Publishers, PO Box 5626, Station B, Victoria, British Columbia, V8R 6S4, Canada. The photos here are by Jeff Barber/INFocus.*

Resources

Coons, Martha. *All Sorts of Good Sufficient Cloth.* North Andover, Massachusetts: Merrimack Valley Textile Museum, 1980.

Bleaching linen

SCOURING ACHIEVES varying degrees of lightness, but never a white. Nevertheless, it must precede bleaching, not because an unscoured skein can't be bleached white—it can, but the process takes longer and usually more bleach is required.

The lightness of the yarn after scouring dictates whether or not the skein can be dyed successfully. Yarn spun from water-retted flax scours to a creamy color and produces lovely antique shades when dyed with dark dyes. However, to achieve pastel tints, the yarn must be bleached white before dyeing. Dew-retted flax and thick yarns require longer or more repeated scouring and bleaching than water-retted flax or thin yarns.

Linen yarn or cloth can be whitened by exposure to sunlight, but chemical bleaching works faster. Chemical bleaches are poisonous and can be corrosive. Keep them labelled and out of reach of children and pets. Chemical bleaching weakens linen yarns—that's why linen is often woven in its natural state and then bleached. The main reasons for bleaching handspun linen yarns are to prepare them for dyeing or for use as white accents.

Grass bleaching. Years ago, linen was boiled in a solution of wood ash, rinsed thoroughly, then spread on clean grass to bleach in the sun. *Bleaching greens* were situated near lakes, streams, or rivers, because the linen was to be kept moist at all times. Used throughout the centuries, this bleaching method is considered the safest. But it is also the most time-consuming, often requiring months to achieve the desired whiteness.

Try grass bleaching during the spring or summer months when the sunlight is most intense. Dampen the scoured skeins or fabric, then place them on clean grass, away from animals. The grass should be short and free from leaves, dirt, slugs, and stones. During dry spells, sprinkle the linen often enough to keep it damp at all times. Turn the skeins or fabric every week or so, to expose all sides to the light. If you're bleaching skeins, be sure to move the figure-eight ties so the sun can reach all parts of the yarn.

Chemical bleaching. In chemical bleaching, take a gradual approach. It's better to bring the fiber to whiteness over a prolonged period of time, with many immersions in a weak bleach solution, than to make one immersion in a strong solution. Start with one or two teaspoons of household bleach per quart of water, and soak the scoured, wetted skeins for an hour at room temperature. If that doesn't do the job, add more bleach and soak the skeins again. When you're satisfied with the results of the bleaching, wash the yarn in water and liquid detergent, and then rinse it thoroughly.

You can also use swimming pool bleach (calcium hypochlorite), which is sold in crystal form. Swimming pool bleach is corrosive and poisonous and requires careful handling, but bleaches linen effectively. Weigh the linen first, and use ten percent of that weight of bleach, dissolved in plenty of water. Soak the skeins for an hour or more, then wash and rinse well.

FLAX SPINNERS AND lacemakers have been allied craftspeople for centuries: we share a patron saint and an abiding interest in fine yarns. Lacemakers are very thread-conscious people. I consider it my good fortune to be associated with the Five Rivers Bobbin Lacemakers; together, we participate in a number of festivals and shows each year.

We work in a historical context, emphasizing demonstration and education, and we illustrate the interdependence among craftspeople. Our bobbin maker, Michael Hrotic, forms bobbins with his foot-powered lathe. I make linen yarn with my foot-powered wheel. In theory, the lacemakers would use these handmade bobbins and yarn to make another handmade product, but in practice, our lacemakers always used to demonstrate with commercial thread.

Finally it occurred to lacemaker Susan Johnson and me that the best way to illustrate the connection between flax spinning and lacemaking would be to make lace from handspun yarn. We thought we might even try to reproduce some antique lace, and decided to concentrate on the 1800s, since the patterns and techniques to which we had access could be documented to that century.

Lace has always been an object of beauty and desire. Its history abounds with stories of smuggling, sumptuary laws, the decadence of those who wore it, the poverty of those who made it. Types of lace came to be named after the places where they were made, giving us the familiar laces such as Valenciennes and Brussels.

The Flemish spinners who made yarn for Brussels lace were well-paid artisans who relied on a highly developed sense of touch, as their yarn was nearly invisible. They worked in dark, damp cellars, because the yarn would break in dry air. In the 1700s a piece of Brussels lace using one or two ounces of the finest Flemish linen thread was worth ten times its weight in gold.[1] The fineness of the thread has been described as something "that cannot be comprehended from the written word."[2]

As Susan and I learned about these laces, we stood in awe of the accomplishment they represented. Could we ever hope to duplicate them?

I vowed to spin finer yarn, even though I spin more at shows than at home, and it's hard to spin my best when demonstrating. First, I purchased a fine hackle and got in the habit of re-hackling my flax right before dressing the distaff. The flax I buy from Fawcett's is good quality, but fiber preparation, as always, is very important. I want an open, airy, arrangement of the finest possible fibers.

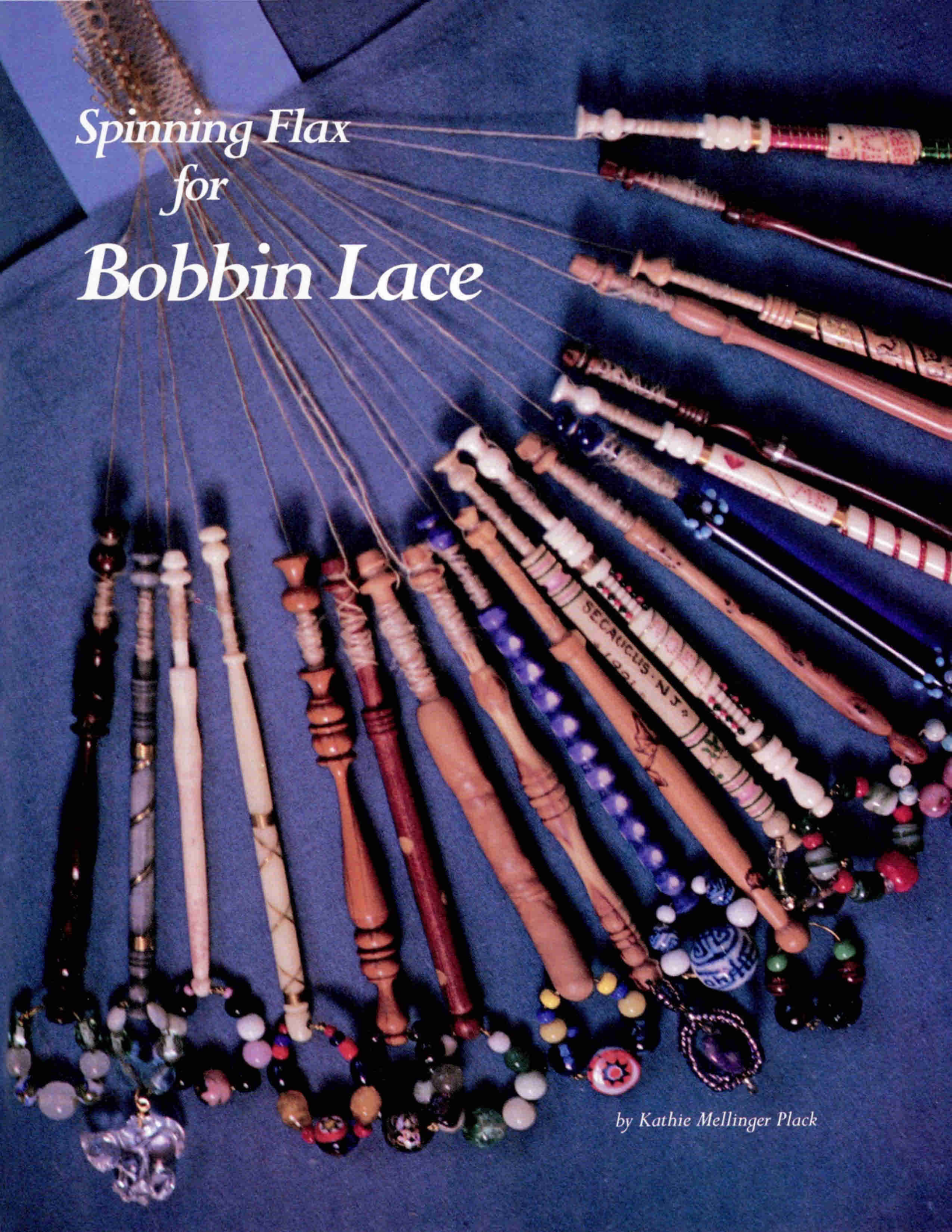
Actually, today's commercial flax *isn't* as fine as possible, so I've started growing my own and pulling it early to obtain especially fine fibers. Although I'm new to the jobs of retting and scutching, the results of my first crop are encouraging. I'm sure that with time and patience I'll be able to produce the fibers I need to spin very fine yarns.

Also, I changed methods in dressing my distaff, from the English (fiber tied to the waist and fanned in a semicircle, then gently rolled around the distaff) to the Continental (fiber hanging in a straight bundle,

Some members of the Five Rivers Bobbin Lacemakers, at Old Economy, Ambridge, Pennsylvania, in 1989. Back row, left to right: Michael Hrotic, Linda Standart, Diana Danko, Susan Johnson, Diane Beall, Kathie Mellinger Plack. Front row, left to right: Toni Contralto, Dandra DeWitt. They say, "The longer we're together, the fewer pictures we take!"

[1] Alice-May Bullock, *Lace and Lacemaking*, page 76.

[2] Elizabeth M. Kurella, "The 'Easter Egg' Lappets Brussels Bobbin Lace Circa 1710–1725."


Spinning Flax
for
Bobbin Lace
by Kathie Mellinger Plack

tied at the top end). I've found that the parallel fiber arrangement lets me spin a smoother, finer yarn. For best results, I use only a small amount of flax (about the thickness of two fingers), and always re-hackle the flax to loosen and separate the fibers before fastening them to the distaff. I usually try to put the flower ends on top and spin from the root ends—I think that makes a smoother yarn. But sometimes it's hard to tell which end is which.

As I was working on fine spinning, Susan came up with a spectacular find—a doll dating perhaps to the 1750s. The doll has a poured-wax head and a body made of wire wrapped with two different weights of linen cloth. She has a green silk velveteen gown, and underpinnings of linen (including a bit of leno weave) and two patterns of lace, although the lace patterns are, for the period, relatively coarse and simple. How we oohed and aahed over that doll. We peered at everything through linen testers (of course!), studying every detail.

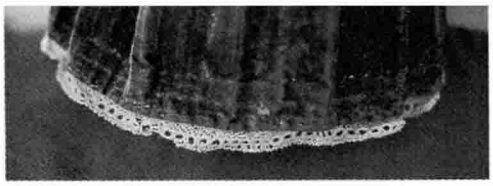
The fiber ends that had worked free from the linen yarns and fabric were very fine, reinforcing my commitment to producing my own flax fibers. Nothing but homegrown, handspun, handwoven, and handmade fiber will do to give this doll the hat she lacks. Making a hat for the doll gave us a focus, and we're now in the process of reproducing her lace.

A pitfall of a project like this is that it often seems like an impossible dream. It goes forward in fits and starts. The side trips are both "hazardous" and wonderful. There have been enough exciting discoveries along the way to hold our attention and fire our imagination.

Finding the doll was one of those exciting moments, as was one show last May when I made the best yarn I've ever spun. The weather was warm, very foggy, and pleasantly damp. The flax had overwintered on the distaff, but had been hackled at least three times. It was my first show of the season and I hadn't spun for a few months, but everything was just right. The fog was my damp cellar; the re-hackled flax was the finest available at that moment. The yarn was perfect in places, even though it was spun "on automatic" while I was talking to people.

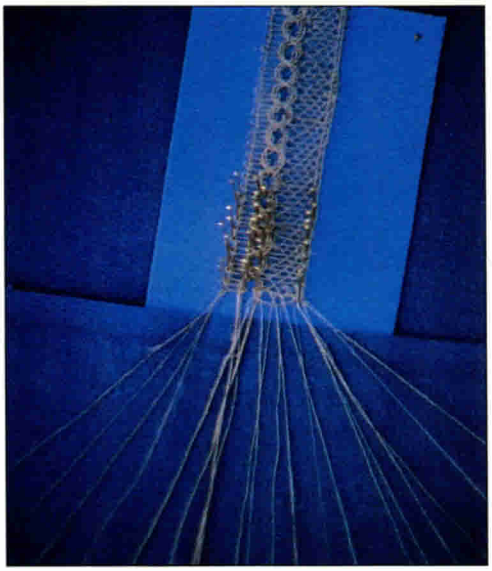
I handed it over to Susan, and within a week she had made samples. She had to cut out a lot of "junk" yarn, but there was enough even yarn suitable for lace. The yarn looks finer than commercial 140/2 Belgian thread, the finest available for lacemaking, and handles like an 80/2. (140/2 linen yarn has 21,000 yards per pound, and 80/2 has 12,000 yards per pound). Spinning that yarn was a baby step on the road to reproducing historic lace, and has me wondering about using a vaporizer in a tent for a day or two, maybe. . . . ❖

The antique doll who needs a hat; a paper found under her skirt is dated 1753.

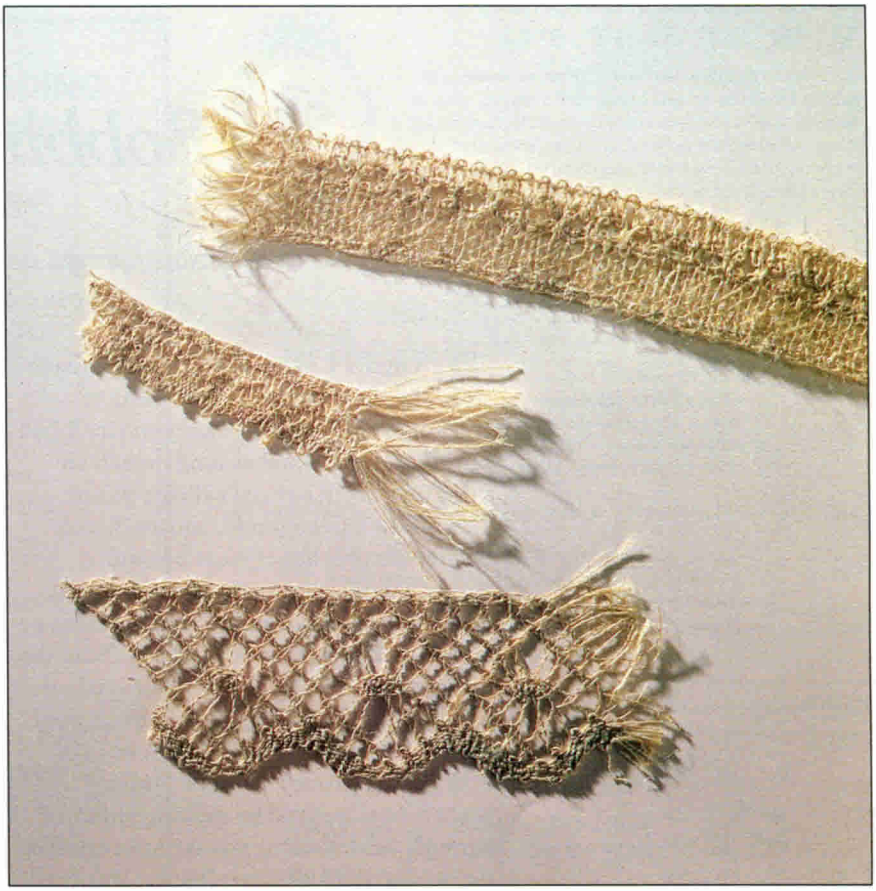


A close-up of the lace around the doll's skirt. Different patterns decorate the neckline.

Kathie Mellinger Plack "spreads the flaxen gospel" in southwestern Pennsylvania. Susan Johnson is a dedicated lacemaker who especially likes to work with fine threads.



The lace at the hemline of the doll's skirt, being reproduced in handspun linen.



Bobbin lace by Susan Johnson, shown at actual size. The flax came from Fawcett, but was hackled at least three times with a fine hackle. Because the yarn was spun during demonstrations, only the best sections were used for the lace.

RESOURCES

Instruction

Cook, Bridget M. *The Torchon Lace Workbook.* New York: St. Martin's Press, 1988.

Lewis, Robin. *101 Torchon Lace Patterns.* London: Dryad Press, 1988.

Stott, Geraldine. *The Bobbin Lace Manual.* New York: Dover, 1989.

History and General Interest

Bullock, Alice-May. *Lace and Lace-making.* New York: Larousse and Company, 1981.

Earnshaw, Pat. *Bobbin and Needle Laces: Information and Care.* McMinnville, Oregon: Robin and Russ Handweavers, 1983.

_____. *Lace in Fashion from the Sixteenth to the Twentieth Centuries.* London: B. T. Batsford, 1981.

_____. *Threads of Lace from Source to Sink.* Guilford, England: Gorse Publications, 1989. *Every spinner should read this book.*

Huetson, T. L. *Lace and Bobbins: A History and Collector's Guide.* North Pomfret, Vermont: David and Charles, 1983.

Kurella, Elizabeth M. "The 'Easter Egg' Lappets Brussels Bobbin Lace Circa 1710–1725." *The Lace Collector,* Fall 1991, page 4.

Levey, Santina M. *Lace: A History.* London: Victoria and Albert Museum, 1983.

Warnick, Kathleen, and Shirley Nilsson. *Legacy of Lace: Identifying, Collecting, and Preserving American Lace.* New York: Crown, 1988.

Suppliers

Michael Hrotic, 175 McGuire Street, New Brighton, Pennsylvania 15066. *Bobbin maker. Send a long SASE for information.*

Lone Star Lace Bobbins, PO Box 397, Maypearl, Texas 76064. *Bobbin maker. Send a long SASE for catalog.*

Robin's Bobbins, Rt. 1, Box 1736, Mineral Bluff, Georgia 30559. *Send $1 for complete catalog of books and supplies.*

Van Sciver Bobbin Lace, 130 Cascadilla Park, Ithaca, New York 14850. *Send two first-class stamps for complete catalog of books and supplies.*

Bobbin Lace

by Susan Johnson and Kathie Mellinger Plack

BOBBIN LACE is a woven lace made by the crossing and twisting of threads. The thread is wound on small bobbins (four to five inches long) which are hung on a work surface called a *pillow*. The pillow can be round, square, flat, or bolster-shaped, but it must be stuffed firmly enough to support the pins which guide the pattern, and the stuffing must be able to withstand repeated use without disintegrating. Straw was the traditional pillow stuffing, but very tightly woven wool fabric or polystyrene sheets can be used.

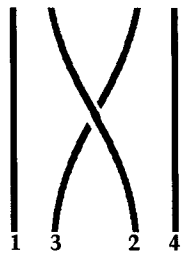
The lace pattern, called a *pricking*, is prepared beforehand by making pinholes through card stock at precise intervals (traditionally, sheepskin parchment was used as a pattern surface). The pricking is then pinned to the pillow, and as the lace is worked, brass straight pins are inserted into the pre-pricked holes. These pins support the stitches so that the tension of working doesn't pull the lace out of shape. This gives bobbin lace its gossamer effect.

All stitches are a combination of the cross and the twist.

Even for a complicated pattern requiring many bobbins, only two pairs of bobbins are in use at any time, because only two pairs are required to make each stitch. In addition, only two movements, in various combinations, create all the stitches of bobbin lace. The *cross* moves a bobbin from left to right over a thread. The *twist* moves a bobbin from right to left over a thread.

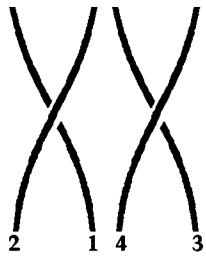
The crossing and twisting abrade the thread, so it must be very smooth and free of slubs. Every join must be perfect, every tendril secured. And the thread must be strong, since a fair amount of tension is placed on the bobbins to straighten the threads. A good lacemaker strokes her bobbins often to insure neat lace.

Thread for bobbin lace must be very fine, but plied thread is preferred since the lacemaking process places many demands on the thread. The crossing and twisting of the bobbins can release enough twist that the thread drifts apart; or, conversely, the movements can increase the twist so that the thread kinks. A lacemaker may find herself turning her bobbins one way or the other to regain control of her threads, depending on the amount and direction of twist. The thread most commonly used today is spun Z and plied S.



Cross: *This is always left over right, moving thread 2 over thread 3. You can think of this as crossing the middle two bobbins.*

Lacemaking is a popular craft and lacemakers are glad to share their enthusiasm and knowledge. International Old Lacers, Inc., holds an annual convention with workshops and exhibits, and many of the local I.O.L. groups hold annual Lace Days where you can meet lacemakers and learn more about the craft.



Twist: *This is always right over left, moving thread 2 over thread 1 and thread 4 over thread 3. Most stitches require you to twist both pairs at once.*

THINK ALL CUSTOM CARDING SERVICES ARE THE SAME?

LET US PROVE WE'RE DIFFERENT

SEND US A SAMPLE OF THE FIBER OR FIBER BLEND YOU WANT PROCESSED (up to 8oz.) AND WE WILL CARD IT FOR YOU ABSOLUTELY **FREE!**

Offer good thru June 30th, 1992
only one sample per customer please
include $3.50 to cover return postage and handling fees.

we offer...wool & exotic fiber processing
washing - carding - dyeing
retail and professional rates

Springwater Farm
26040 S Warnock Rd
Estacada, OR 97023
(503) 630-3626

IT'S TIME TO SPIN

This handsome watch would not only be a unique item to wear yourself but would also be an ideal Birthday Christmas gift for that spinner on your list. It is available in women's and men's styles with either a regular or thin water-resistant goldtone case, battery powered quartz movement, genuine black leather band and a 1-year limited warranty.

YES, Please send me the watch(es) I have ordered below:

STYLE	QUANTITY Women's Style	QUANTITY Men's Style	PRICE EACH	AMOUNT
Regular Quartz			39.95	
Thin Water-Resistant Quartz			59.95	
Deluxe Gift Box - @2.00 EA				
CALIF residents add 7.75% Sales Tax				
Shipping and Handling (Include $3.50 for 1st watch, $1.25 for each watch thereafter)				
TOTAL AMOUNT ENCLOSED				

All orders must be prepaid in U.S. Funds or can be charged with VISA or MasterCard

☐ I am enclosing a check/money order for $_____
☐ Please charge ☐ MC ☐ VISA
Account number:_____ Expiration date:_____
Your signature:_____ Daytime phone:_____

YOUR NAME:_____
Address:_____ City:_____
State/ZIP:_____ Phone:_____
Mail your orders to:

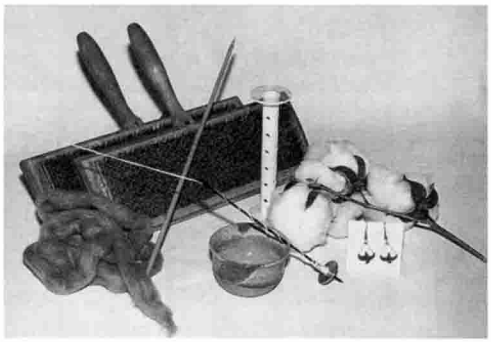
Hare's to Ewe™
1234 S. Main Street
Santa Ana, CA 92707
(714) 542-1963
FAX (714) 953-9529

Please allow 3-4 weeks for delivery

Spin 'n Weave

A COMPLETE SHOP FOR SPINNERS & WEAVERS

Has all of your Cotton Spinning Supplies.



Plus much more!
Send $1[00] for samples & catalog.

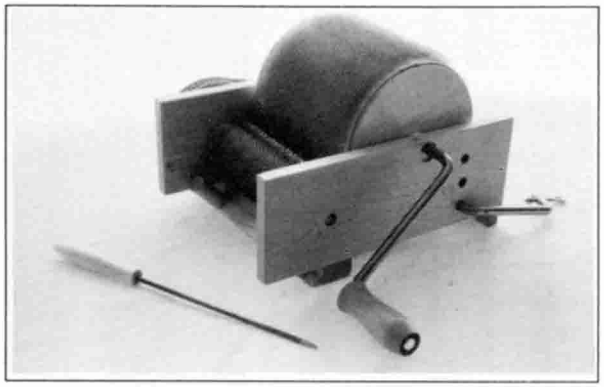
Spin 'n Weave 3054 N. First Ave. -S
(602) 623-9787 Tucson Arizona 85719

Visit us at Convergence at booth #126!

LENDRUM

DRUM CARDER

This machine is built to last a life time. The frame, made of Canadian hard maple is compact for strength and easy storage. The fleece is drawn right off of your work table so there is no need for a bulky tray. All of the material used, including the card cloth, are of high quality to insure many years of trouble free carding.



INNOVATIVE SPINNING TOOLS SINCE 1976
Gord Lendrum
RR 4, Odessa Ontario, Canada, K0H 2H0, 613-386-7151

THE RIVER FARM

Banks of the Shenandoah

1-800-USA-WOOL Hours: 10-6 ET

Spin, Weave & Dye WEEKEND WORKSHOPS with Bed & Breakfast

Mail Order & Farm Shop

Clean American Fleece

Corriedale Sheep, Spinning Wheels, Looms, Fibers, Yarns

CATALOG $1.00
M/C, VISA - UPS DELIVERY

THE RIVER FARM
Rt. 1, Box 401, Timberville, VA 22853
I-81, Exit 264 • 1-800-USA-WOOL

NOW BACK IN PRINT (9th printing)

"Spinning and Weaving with Wool"
by Paula Simmons

Price $16.95 (p/h $2.50, CA tax $1.27)

The Unicorn, Books for Craftsmen, Inc.
1338 Ross
Petaluma, CA 94954
(800) 289-9276 • MC & VISA Welcome

Send $1.00 p/h for the complete Unicorn Book Catalog

SHEEP & GOAT COATS

100% Polypropylene, yet looks like canvas
Washable–Breathable–Fray Resistant–Durable
Last about 3 years, with care.
MADE IN THE U.S.A. • VISA & MasterCard accepted
Prevents Sun Bleaching–Tender Tips–Mud & Manure Stains
You CAN produce vegetation free quality fleeces!!!

Size	Overall Length Chest To Tail	Shoulder To Tail	Normal Girth	Price	Quantity	Amount
Sm	30	26	28	$ 7.20		
Med/Sm	34	30	34	7.75		
Med	38	34	36	9.75		
Med/Avg	40	36	38	10.95		
Avg	42	38	40	12.00		
Avg/Reg	44	40	44	13.20		
Reg	48	42	46	13.50		
Reg/Lg	50	44	48	14.05		
Lg	52	46	50	15.00		

SubTotal
Wash. Residents Sales Tax 8.2%
Shipping
TOTAL

11 sizes available. All sizes kept in stock.
If we are out, delivery will be in 4–6 weeks.

Minimum shipping $4.00
$41 to $99 add 10% shipping
$100 and up add 8% shipping

These make good inexpensive show coats too!!!

Name _____ (please print)
Street Address _____
Mailing Address _____
City _____
State _____ Zip _____
Card # _____ Exp. _____
❑ VISA ❑ MasterCard
Phone _____ (please include area code)

Send to: Cascade CVM
31439 W. Commercial
P.O. Box 630
Carnation, WA 98014
LINDA PFEIFFER
(206) 333-4934

Cashmere East imported breeding stock from Lismore Cashmere Breeders, winners of Australia's National Cashmere Herd of the Year award for 1990. Certified CAE—free herd.

Bucks • bucklings • bred does • doelings • embryo transer kids • selected cashmere crosses • crossbred spanish does • semen • white • black • grey • beige

LLC Cashmere Lydia Ratcliff, RFD 1, Chester, Vermont 05143, 802-875-3159

Stonehill Farm Mary Matthews, 422 Mt. Holly Road, Katonah, New York 10536, 914-232-9593

Wool/Mohair FELT

A bouclé effect: the trick's in the blend

by Shirley Browsky

Disaster?

Sometimes happy accidents occur. This is one. Everyone in my family has handspun mohair-and-wool winter socks. One day, my socks ended up in the washer with my son's blue jeans, and then . . . gasp . . . went in the dryer. When my son sheepishly presented me with my baby socks, I was initially very angry. "Why don't you ever sort your laundry?" I asked. After informing him exactly how long it takes to make a pair of very nice, warm socks, I sat down and inspected the disaster.

I had been interested in *wadmal,* or "boiled wool," fabrics, but had not taken time to explore them. Upon inspecting my socks, I noted something remarkable. I now had bouclé socks, albeit small ones. This intrigued me; I set about experimenting with felted knitting.

I began with a hat, which would not require much spinning or knitting. After a few false starts, I hit upon the right combination of fibers, knitting needles, stitches, and felting procedures. The resulting hat is squashable, and looks more stylish than a toque. And it is warm!

Spinning

I worked with blends of mohair and wool, and discovered that finer wools produce better felt. The fine wool shrinks very fast, but the mohair doesn't. As a result, it has to go somewhere—and produces loops on the surface of the fabric.

On the drum carder, I mixed 70 percent mohair and 30 percent fine Corriedale. I carded the blend twice, rolled the batts, and pre-drafted a roving. Then I spun singles at about 12 twists per inch, with a grist of about 1700 yards per pound. I plied the singles together evenly, washed the skeins, and hung them to dry.

Knitting the brimmed hat

Yarn: Two-ply wool/mohair blend, at 850 yards per pound—about 6 ounces. Two strands are worked as one throughout.

Gauge: On size 11 (7–7.5 mm) needles, 5½ stitches/inch (21/10 cm) and 4 rounds/inch (15.5/10 cm). Use basic needle size to approximate gauge, and relatively larger needles for brim section, as described below. Work is in stockinette, proceeding in the round on any convenient combination of circular and/or double-pointed needles.

Construction: With size 15 (8.5–9 mm) needles, and holding two strands of yarn together, cast on 100 stitches. Join for circular knitting, change to size 13 (8–8.5 mm) needles and knit even for 2" (5 cm), or 7 more rounds (8 including cast-on round).

A brimmed hat, as knitted (below) and after felting (above).

The hats and mittens shown here are quick spinners' projects which Shirley Browsky developed into a line of custom jackets. The secret of their texture is in the wool/mohair blend.

Next round: Decrease 10 stitches, as follows: k9, k2tog, around (90 sts). Change to size 11 (7–7.5 mm) needles and knit 3" (7.5 cm) or 10 rounds.

Next round: Decrease 20 stitches, as follows: k3, k2tog, around (70 sts). Knit 8" (20 cm) or 28 rounds.

Shape the crown.

Round 1: K2tog, k5, around.

Rounds 2, 4, and 6: K.

Round 3: K2, k2tog, around.

Round 5: K2tog, k1, around.

Rounds 7, 8, and 9: K2tog, around.

Break yarn, leaving a 6" (15 cm) tail. Thread tail through remaining sts and tie off.

For a narrower brim, use size 13 (8–8.5 mm) needles and cast on 90 sts. Change to size 11 (7–7.5 mm) needles and work 3" (7.5 cm) or 10 rows. Decrease 20 sts and carry on as above (70 sts).

For a Sherpa hat: Ignore the brim. Start with the size 13 (8–8.5 mm) needles, cast on 70 sts, and proceed. After felting (below), spin up some oversized novelty yarn, and crochet a wide border.

Disaster II?

You will laugh when you see the size of the hat, but fear not: we'll now take care of that. Turn the giant hat inside out, so the purl side is on the outside. Throw it into the washing machine, set for normal agitation, hot wash, cold rinse, and low water level. Add detergent and run on an extra-long cycle.

When you remove the fabric, it will have shrunk! Try it on for fit, then put it on a hat form to dry. If it's too large, sew in a gathering yarn at the base of the brim and pull it tighter. If it's too small, tug at it until it fits—you will be surprised how much control you have.

Mittens before (dark) and after (light) felting.

Knitting the mittens

These are large-size mittens, 11½" (29 cm) long, which will fit over a pair of kid gloves. They are worked in stockinette on circular or double-pointed needles, as needed. Yarn is a single two-ply strand throughout (850 yards per pound).

Yarn: Two-ply wool/mohair blend, at 850 yards per pound—about 5 ounces. Mittens are worked with a single strand throughout.

Gauge: On size 6 (4–4.5 mm) needles, 4½ stitches/inch (17.5/10 cm) and 6 rows/inch (24/10 cm).

Construction: Using a single strand of yarn, cast on 48 stitches. Join for circular knitting and work twisted k1, p1 rib for 4" (10 cm) or 24 rows. For twisted rib, work into the back of each knit stitch. Increase 4 sts evenly. Knit 9 rows.

Work the thumb gusset.

Round 1: K2, place a marker, inc 1 st in each of the next 2 sts, place a marker, knit to end.

Round 2: K.

Round 3: K to marker, slip marker, inc in next st, k to 1 st before marker, inc in next st, slip marker, k to end.

Repeat rounds 1 and 2 until there are 20 sts between the markers, ending with round 2.

Next round: Slip sts between markers onto a holder. Cast on 2 sts.

Continue in stockinette until 9½" (24 cm) or 28 rows above cast-on sts at thumb gusset.

Decrease top.

Round 1: K2, k2tog, around.

Rounds 2, 3, 4, and 5: K.

Round 6: K1, k2tog, around.

Rounds 7, 8, 9, and 10: K.

Round 11: K2tog, around.

Rounds 12 and 13: K.

Round 14: K2tog around.

Cut yarn, leaving a tail, and draw the end through the remaining stitches. Secure.

Work the thumb.

Slip thumb sts from holder to double-pointed needles, picking up 2 sts over the cast-on sts. Work in stockinette until thumb measures 2½" (6 cm) or 14 rows from picked-up sts. Then decrease the top of the thumb.

Round 1: K2, k2tog, around.

Rounds 2 and 3: K.

Round 4: K1, k2tog, around.

Round 5: K.

Round 6: K2tog around.

Cut yarn, leaving a tail, draw the end through the remaining sts. Secure. Turn the mittens inside out and throw them into the washer with the hat.

Further developments

My initial experiments with wool/mohair felting were carried out with handspun. Because I produce over three hundred pounds of fiber per year, I now have my fleeces spun to my specification on a spinning frame. This is loosely machine-knitted into yards of fabric, which are then felted and used to construct jackets. The fabric has a wonderful bouclé texture and feel, but is not as binding as woven felted cloth.

The jackets are easy to make, because the fabric does not ravel when it is cut and sewn. They are lined with hand-dyed silk, for a luscious feeling inside and out. ❖

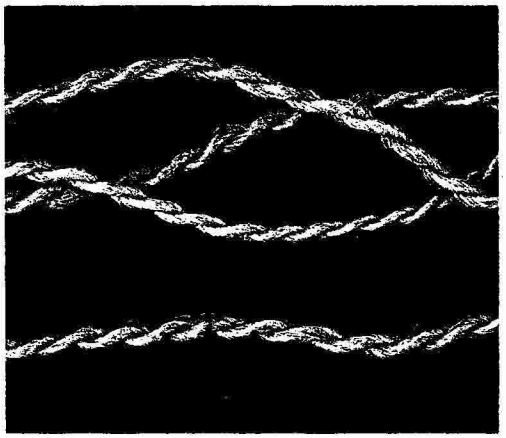
This jacket was made by Raymonde Wolfe from knitted and felted wool/mohair fabric. Although the yarn was spun as a straight two-ply, the resulting fabric looks as if it were made from a bouclé because the wool shrinks and the mohair doesn't.

Shirley Browsky, of Hammond, Ontario, teaches workshops on spinning, dyeing, weaving, and felting, both at the family's heritage farm (25 miles east of Ottawa) and at guild-sponsored events and conferences. She received a Master Spinner designation "with distinction" from the Ontario Handweavers and Spinners in 1990, and is currently working toward the Master Weaver Certificate.

Resources

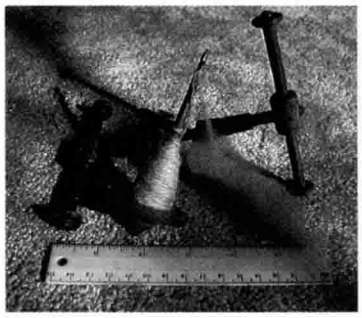
"Fulled knitting." *Knitters* 5 (Fall/Winter 1986), pages 34–35.

Mitchell, Suzanne. "Felting knit mohair." *Threads* 13 (October/November 1987), pp. 66–67.



Actual-size two-ply yarn samples for these felted garments.

Low-tech spinning



Traveling Shawl

by Donna Muller

THIS 2500-MILE SHAWL was spun on a 4½-inch drop spindle, from commercially prepared roving (probably Corriedale or its ilk), while driving from western Massachusetts to northern Arizona, with stops in Colorado and Montana. The nicely crimped 4½-inch–staple wool was drawn out as finely as possible, given the rock-and-roll of 65 m.p.h. cross-country travel, and spun into a yarn of between 55 and 60 diameters/inch. I spun between 18 and 24 inches' worth of yarn at a single drop; this limit was set by the passenger's share of the front seat of a Volvo station wagon. Then I added twist to each length of yarn, just to the point where the span began to shorten.

I set the twist by winding each spindleful of yarn tightly around a spent tennis ball, filched from the Labrador in the back

of the wagon, a splendid bit of serendipity (not the Labrador's opinion), because the fuzzy surface "velcroed" the fine, slightly kinky, new yarn in place. (Having discovered the tennis ball technique, I now use it at home—but, because I have access to more tools and because Arizona lacks humidity, I now spray the ball with water between layers as I wind it.)

Full of the impatient curiosity of every spinner/knitter, I began to knit off the tennis ball before I had finished spinning, and was relieved and delighted to find that the overtwist had set enough in a couple of days that I could knit lace-loose without (many) kinks. I used size 3 (3.25 mm) bamboo-tipped circular needles, which rolled up and fit into the sandwich bag which housed the entire project start-to-finish. The cream-colored fine yarn was hard to see against the bamboo, especially in yarnovers, but this was the only small annoyance in the whole process.

The pattern is a combination of "Old Shale" and "Indian Pillars" for the body, and I added a picked-up border all around. Blocking required many, many pins—one in each point of the border lace—and was *not* accomplished in the front seat of the Volvo.

Nary a twirl, stitch, nor pin is begrudged, and drop-spindle spinning has replaced crocheting (which, in turn, replaced knitting a couple of summers ago) as my amusement of choice for cross country travel. Spindlesful can be calibrated in miles, and it is most amusing to puzzle the truck drivers who look down and into the station wagon.

The finished shawl is 18" by 70" (46 by 178 cm)—it initially blocked out a bit larger, but then relaxed. It weighs 2.2 ounces. ❖

Donna Muller, now of Flagstaff, Arizona (mostly), usually teaches and writes about weaving. She is the author of Handwoven Laces *(Loveland, Colorado: Interweave, 1991).*

Instructions

Note: The "Indian Pillars" motif is knitted twice, on the first and the last 12 stitches; "Old Shale" is worked in the center.

Body. Cast on *very loosely* 68 sts.

Purl 1 row as a foundation for the lace patterns.

Work the two lace patterns as follows, for the desired length of the shawl: "Indian Pillars" (12 sts), four repeats of "Old Shale" (44 sts), "Indian Pillars" (12 sts). ("Indian Pillars," a two-row pattern, is worked twice for every completed four-row sequence of "Old Shale.")

To finish, knit 1 row loosely, and bind off *very loosely.*

Lace border. The lace border is simultaneously knitted and attached to the shawl. The border pattern is worked in four rows. Rows 1 and 3 begin at the shawl, and rows 2 and 4 start at the outside edge and work back toward the body.

Attach the border to the shawl by picking up the last knit stitch at the ends of rows 2 and 4 through the edge of the shawl. The border is joined to every other stitch on the long edge of the shawl, to every stitch across the width (because the shawl expands more in width than in length when blocked), and several times into the stitches near the corners, to provide enough fullness to lie flat when blocked.

Cast on 13 sts. Knit one row as a foundation before beginning the pattern.

Row 1: Sl1, k2, yo, k2tog, k1, (yo twice, k2tog) three times, k1.

Row 2: K3, p1, (k2, p1) twice, k3, yo, k2tog, k1.

Row 3: Sl1, k2, yo, k2tog, k11.

Row 4: Cast off 3 sts (one st remains on righthand needle at end of this operation), k9, yo, k2tog, k1.

STITCH PATTERNS

Indian Pillars

Worked across 12 sts, at beginning and end of each row.

Row 1: K2, (insert needle as if to purl into 2 sts and p1, k1 into these 2 sts as if they were one, k1) three times, k1.

Row 2: P12.

Old Shale

A multiple of 11 sts, worked on the center 44 sts.

Row 1: K2tog twice, (yo, k1) three times, yo, k2tog twice. Work these 11 sts four times in all for the center panel.

Rows 2 and 4: P44.

Row 3: K44.

ABBREVIATIONS

k	knit
k2tog	knit two stitches together as one
p	purl
sl1	slip one stitch, as if to purl
st	stitch
sts	stitches
yo	yarn over: make a stitch by taking the yarn to the front between the needles, and then over the righthand needle

RESOURCES

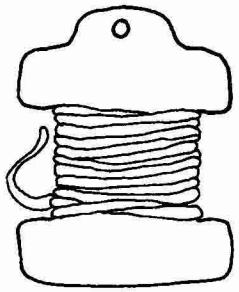
Thomas, Mary. *Mary Thomas's Book of Knitting Patterns.* New York: Dover, 1972. Page 182 shows "Old Shale." "Indian Pillars" appears on page 201, but is worked in this shawl over a different number of stitches.

Phillips, Mary Walker. *Knitting Counterpanes: Traditional Coverlet Patterns for Contemporary Knitters.* Newtown, Connecticut: Taunton, 1989. The border pattern is a modification of "Frisby Edging," on page 155.

Tips and Techniques

Samples on display

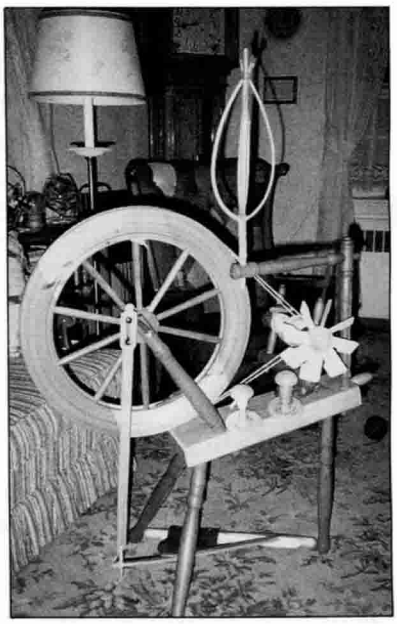
A lot of people have asked about the display technique we use for handspun and hand-dyed samples. It's simple and attractive, and the plywood holders can be either hung on a wall (using the hole at the top) or filed in a box. Make a template according to the shape indicated, and then cut duplicates out of lightweight plywood. The size can vary; ours are about 3" by 3" (7.5 ö 7.5 cm). Finish the forms with clear varnish, and when they are dry wind the yarn around the middle.



—Anne Crossman, Wales

Summer spinning

Following a flight-of-fancy suggestion that appeared in the newsletter of the North Country Spinners, from Hope, New Jersey, one of our members added a fan to the back of his flyer for cool summer treadling. Claude A. Jones, from Belfast, Pennsylvania, is very talented with woodworking tools and made not only the fan but the wheel. The fan blades move as he spins!



—Jan Russell-Urbani, Easton, Pennsylvania

Easy dyeing

Many spinners braid roving before adding it to a dyepot, to keep it in order. This is very time-consuming. Instead, I chain it, using the same technique as for chaining a warp. I keep the chain loose and find it works as well as braiding.

—Kate Robertson, Idaho Falls, Idaho

Tracking Down MORE Moving Spindle WHEELS

Nineteenth-century mysteries

by Florence Feldman-Wood

WHEN SHE SAW the pieces at an auction, spinner Priscilla Blosser-Rainey of Timberville, Virginia, knew they were parts of a special type of spinning wheel because they resembled some bits and pieces her father had rescued around 1915 in her home town of Edom, Virginia. Over a period of twelve years, she researched and restored the machine.

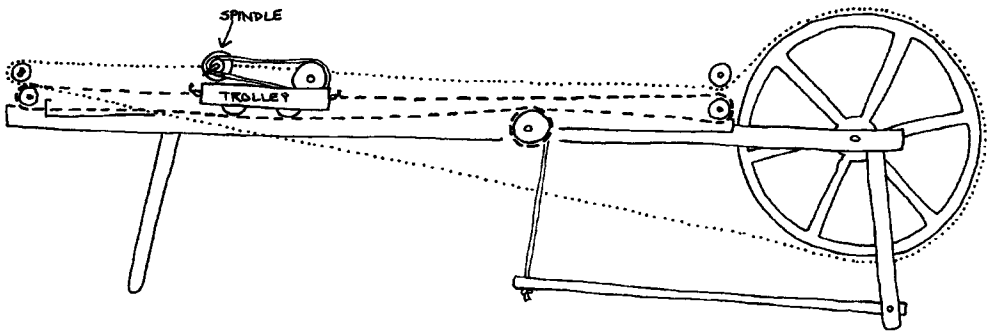
And when Juanita and Franklin Breidenbaugh of Jarrettsville, Maryland, found parts of a strange wheel at an antique/junk shop, they suspected that they belonged to a rare type of spinning wheel, but weren't sure how the parts would go together. They got in touch with Priscilla, who showed them pictures from books, and photographs of a similar wheel in a private collection, and an article in *Spin·Off* (Summer 1990). In the article they found another picture of "their" wheel, on display in an exhibit at the Museum of American Textile History in North Andover, Massachusetts.

These strange spinning devices are *moving spindle wheels,* and people intrigued by them join a fellowship of the curious who understand that the questions about these tools far outnumber the answers.

Moving spindle wheels are variations on the great wheel which allow the spinner to work from a seated position. The spindle moves away from the spinner at a controlled rate as the yarn gets longer, then moves closer again as the yarn is wound on.

The largest historical question concerning these wheels is: *Why, in the period of industrial expansion and development of textile technology in America, 1835–1880, were inventors still working to adapt the*

Basic track wheel mechanisms



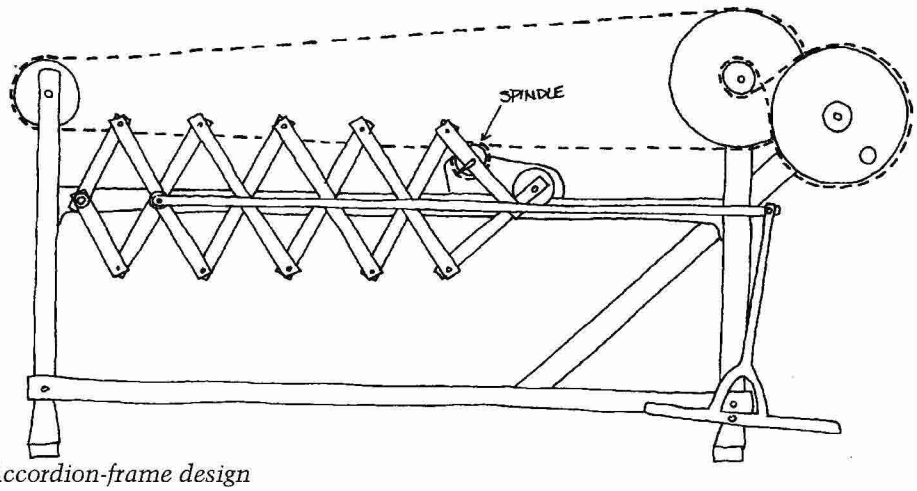
Trolley-and-pulley design

Pivoting-arm moving spindle wheels were discussed in *SPIN·OFF,* Summer 1990, pages 66–73.

Priscilla Blosser-Rainey spins at her track wheel, which seems to have been made for this hallway.

wool or spindle wheel to make it more efficient and comfortable for handspinners? The more immediate, more nuts and bolts, question is: *What approaches did they develop to accomplish this end?*

Two general categories of solutions emerge, based on how the spindle is moved. In the first, *the spindle is mounted on an arm that swings away* from the spinner. The arm is controlled by a treadle or pedal and a counterweight. The arm may pivot from the top (in a pendulum wheel) or from the bottom (in a lever-action wheel), or it may be attached to the table of the wheel and swing out horizontally. In the second, *the spindle mechanism travels along a horizontal track,* moved by pulleys or by an accordion frame. Again the movement is controlled by a foot treadle. Wheels discussed here belong to this second category.



Accordion-frame design

Basic research

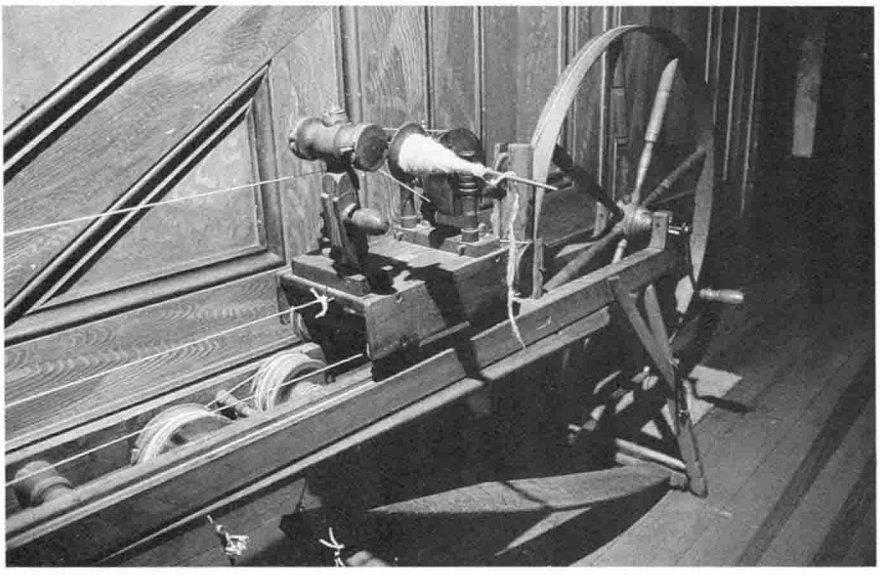
How can one learn about these weird spinning wheels, if one just finds the pieces? If you are lucky, you can find pictures in books or old newspapers. Better yet, you may discover a similar device at a museum. Few museums, however, own complete examples, and fewer still exhibit them.

Although many of these wheels were not patented, diagrams of patented wheels can provide hints on how this type of wheel was put together and on where the various belts or cords were placed. But the number of useful patent diagrams has been limited by the ravages of history. While about two hundred "improved" spinning wheels were registered, only 38 drawings and specifications survived the Patent Office fires of 1836 and 1877. Of these, twenty-two are moving spindle devices. Ten of these have spindles attached to pivoting arms, and twelve of them have tracks. In some cases, the information is fragmentary, because the patent describes only the "improved" part of a wheel which cannot be traced.[1]

There are also patent models for some wheels. Until 1880, a model was required with each patent application, but in 1908 the Patent Office ran out of space and began divesting itself of models. In 1926, about fifteen thousand models were chosen to be preserved at the Smithsonian. Fortunately, the person who made the selection was especially interested in textile machinery, so 29 patented spinning wheels are represented; 9 of these are moving spindle wheels.[2]

[1]From an unpublished manuscript, "Development of the wool spinning wheel in the United States," by Ralph J. Esposito, Cooperstown, New York, 1970.

A closer look at Priscilla's wheel shows the spindle and its trolley.



Tracking track wheels

Three patents are close, but not identical, to the spinning machine parts that Priscilla Blosser-Rainey bought at the auction. There were several similar wheels in the same area.

At the Patent Office in Washington, D.C., Priscilla found three patents for similar wheels, but none was exactly like it. Hiram McCraken of Black Mountain, North Carolina, and Claude Rexroad of Clover Hill, Virginia, made small parts to complete the spinning machine. Hiram McCraken was able to mount cords on the machine so that Priscilla could spin with it.

This spinning device has a track over twelve feet long, which is set on four legs. The track is hinged in the middle to facilitate moving and storage. The drive wheel, powered by a hand crank, is located at the right hand side. The spindle mechanism, with an accelerating head, is mounted on a small trolley or cart which moves along wooden rails, propelled by pulleys and controlled by a foot pedal. The cart's speed is determined by a knee brake.

There are two separate cords. One connects the drive wheel with the spindle mechanism. The other connects the pulleys with the cart.

To spin on this wheel it's best to use a well-prepared rolag or a mill-prepared roving. The spinner's right foot pushes the pedal, which causes the cart to move down the track away from the spinner. At the same time, the right hand turns the drive wheel which rotates the spindle and puts twist into the fibers.

At the end of the track, the cart rests momentarily while the spinner continues

[2]Dr. Frederick Lawton chose the models. He was curator of a unit called Crafts and Industry, and his area of specialization was textile machinery. See *Technology in Miniature, American Textile Patent Models, 1819–1840*, by Barbara Suit Janssen (Washington, D.C.: Smithsonian Institution Press, 1988). Thanks to Lois Vann, Museum Specialist in the Division of Textiles, for her assistance in studying and photographing the models.

to turn the drive wheel and put more twist into the yarn, as one would do with any spindle wheel. Then the spinner gradually releases the pedal, and the cart moves back toward the spinner while the yarn winds onto the spindle.

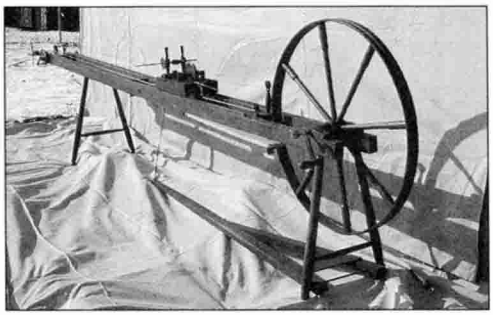
That's the basic idea, but to spin efficiently it's necessary to keep the cord tensions carefully adjusted. On this machine, there is one tensioning screw at the end of the track that controls the cords. There is also a wooden screw on the cart that holds the spindle at the correct angle. When set properly, it can be a very fast wheel.[3]

Mark Ware of Somerset, Pennsylvania, was exceptionally lucky because the horizontal track wheel he inherited can be attributed to a well-known local woodworker and blacksmith, Joel B. Miller (1811–1885). Examples of Miller's signed flax and wool wheels can be found in the Springs area of Somerset County, Pennsylvania. Miller made several long-bed wheels, but none of these was signed.[4]

Joel B. Miller was a highly respected member of the rural Amish community in which he lived. In the family genealogy, published in 1960, he is noted as having produced in his woodworking and blacksmithing shop almost every conceivable piece of equipment needed on the farm or in the home, "with many spinning wheels (wool and flax) always in the making."[5]

This wheel is similar to Priscilla's. It is also twelve feet long and hinged in the middle (although Mark Ware has seen at least one such wheel with no hinge). Each of these wheels is painted a burnt orange color.

Mark spent many hours figuring out how to put the cords on his wheel. He found the diagrams for a patent issued to D. B. Teter in 1865 the most helpful. Another patent, issued to D. Current in 1850, also bears a close resemblance to these wheels; it even includes the knee-acti-



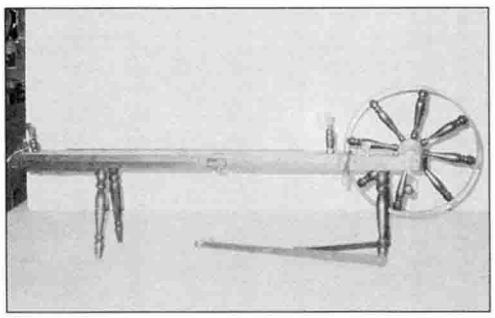
Mark Ware's wheel, made by Joel B. Miller (1811–1885).

vated brake system. There is a patent model of the Current wheel in the Smithsonian collection, but it is incomplete. Perhaps one of these wheels came to the attention of Joel B. Miller, who—master craftsman that he was—reproduced it, adding his own touches.

Is it possible there is a connection between Mark's and Priscilla's wheels? Even in terms of mid-19th–century transportation, the Shenandoah Valley in Virginia is not far from Somerset County, in the southwest corner of Pennsylvania. Joel B. Miller was a member of an Amish Mennonite community, and many of the people in the central Shenandoah Valley were part of the Mennonite community. Is this the link?

A museum's mystery wheel

A beautifully painted horizontal track wheel is on display at the Mercer Museum in Doylestown, Pennsylvania, which is dedicated to the tools of 18th- and 19th-century America. The wheel has a wooden table 5 feet long, resting on four 18-inch–high legs. At the right end, two uprights hold a drive wheel with a hand crank. Two 10-inch uprights, in the middle and at the left end of the table, support a 4-foot–long wooden beam that extends beyond the edge of the table. At each end of this beam are round cross pieces which hold thin metal rods parallel to the center beam. There is a metal pulley at each end of the beam; the pulley on the right end is sup-



The Smithsonian's patent model for D. Current's 1850 application.

[3]A videotape of Priscilla Blosser-Rainey demonstrating the use of this device is available from The River Farm, Rt. 1, Box 401, Timberville, Virginia 22853. (800) USA-WOOL.

[4]The local people call them "spinning jennies"; this is an archaic use of the word *jenny*, which today usually refers to a multiple-spindle device.

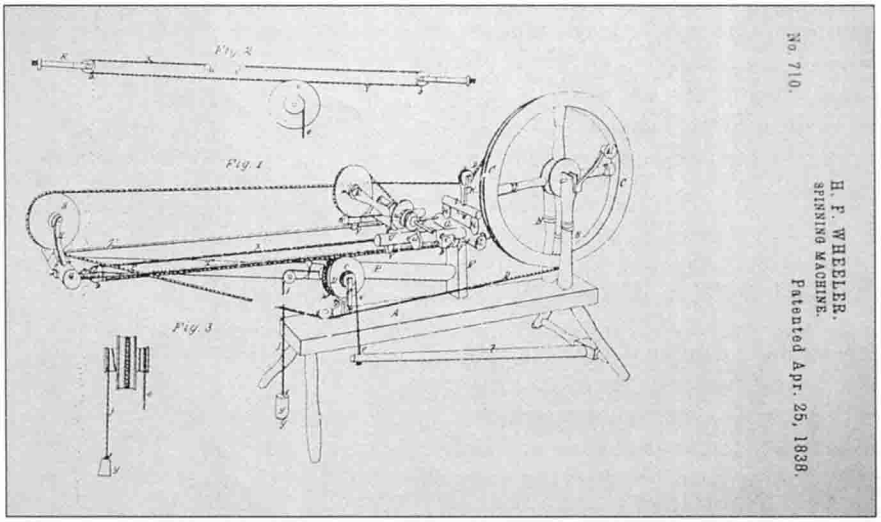
[5]Alta Elizabeth Schrock, *The Miller Story* (Grantsville, Maryland: The Joel B. Miller Book Committee, 1960), page 44.

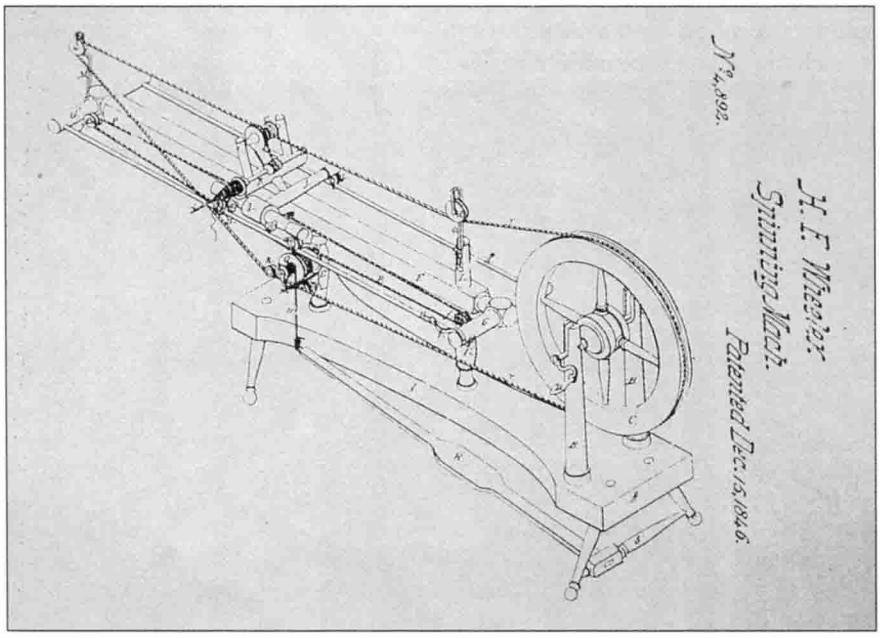
ported by a short upright. A triple spool is under the beam on the left-hand upright. A moveable wooden unit, painted black, holds the spindle whorl and the accelerating head. It has wooden wheels that travel along the metal rods by means of cords around the pulleys. This movement is controlled by a foot treadle attached to a bar between the two righthand legs of the table. Another cord connects the drive wheel with the spindle unit. Except for the spindle unit, all the wooden pieces are painted brick red, with a trim of black and yellow stripes, and a feather motif. The wheel is in excellent condition.[6]

But the museum has no information about the wheel. It is similar to the wheels patented by Hiram F. Wheeler. While living in Springville, Susquehanna County, Pennsylvania, Wheeler was granted two patents, in 1838 and 1846. The 1850 census lists Hiram Wheeler, his wife, and four children as living in Lemon Township, Wyoming County, Pennsylvania. The second patent is a refinement of the first. These are the first two patents of moving spindle wheels chronologically still in existence. The Smithsonian has two lovely—and still working—models of these patents.

Perhaps this is the horizontal spinner featured in a large advertisement in *The People's Advocate*, of Montrose, Pennsylvania, in 1847. The ad contains testimonials from "several highly respectable ladies, who have used the Domestic Horizontal Spinning Wheel, and who concur in saying substantially, that they can spin with it seven or eight run, (or about four day's work) per diem, with as much ease as they can perform an ordinary day's work with a common wheel. The inference is irresistable; that it will hereafter be more profitable for the farmer who manufactures his wool, with this machine to have in his employ at the *same cost*, for labor, *one* girl, than *four* girls with the common stand-and-spin wheels: . . . H. F. Wheeler, Patentee. J. Smith, Jr., Agent."[7]

Hiram Wheeler's patent diagrams from 1838 (above) and 1846 (below).





Rescued from the dumpster

When Juanita and Franklin Breidenbaugh stopped at a shop in Gettysburg, Pennsylvania, they found two large wooden wheels, a treadle, and a spindle head in a box outside. After buying the contents of the box, Franklin strolled around the back of the shop, where he found a rail frame and an accordion mechanism in the dumpster. Following Priscilla's lead, the Breidenbaughs have been able to put this wheel back in working order.

This wheel has two wooden uprights, approximately two feet high, set in bases. They hold two parallel rails about 6 feet long. At the top of the righthand upright is a 12-inch solid drive wheel. A second, similar wheel is positioned to the right and

[6]My thanks to Cory Amsler, curator of the Mercer Museum, for his assistance in studying this wheel. The Mercer Museum is located at 84 Pine Street, Doylestown, Pennsylvania 18901. (215) 345-0210. Hours: Monday–Saturday 10 a.m.–4:30 p.m., Sunday 12–4:30 p.m.

[7]My thanks to Betty Smith, curator of the Susquehanna County Historical Society, for the census information and the advertisement.

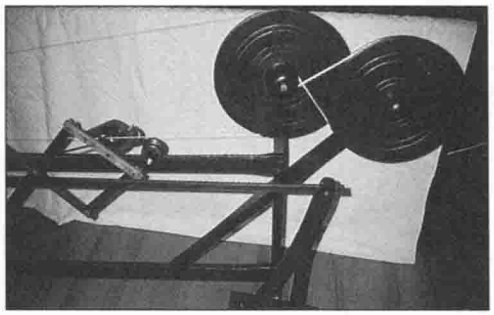
slightly lower, on a diagonal support fastened to the lower rail and frame. A heavy cord connects the drive wheel to the hub of the accelerating wheel. The spindle head and whorl are attached to the first section of the accordion mechanism, which is activated by a thin wooden arm, attached to a footman, which is powered by a pivoting treadle. A second cord travels around the second wheel to the small pulley on top of the left upright and around the spindle whorl.

The spinner pushes down on the treadle, causing the accordion to condense and to move the spindle away. At the same time, the spinner turns the hand crank on the first wheel, and this power is transferred to the spindle. Again extra twist is added at the end of the track, then the treadle is released so the spindle returns toward the spinner while the yarn winds on.

At least two more such wheels are known to be in private collections (in West Virginia and Tennessee), and several are in museums (in Washington, D.C., New York State, Massachusetts, and Ontario). They are simpler than other moving spindle wheels, with fewer parts that need adjustment—perhaps this is why so many have survived. But by whom they were made, and where, is still a mystery.

There are two existing wheel patents that incorporate an accordion system on a frame. The wheels are different, in that one is much smaller than the other. One patent was granted to James L. Johnson and J. Wilson Foust, of Evansburg, Pennsylvania, in 1868. In the written description, Johnson and Foust claim an improvement in spinning-frames, to "preserve the proper tension on the driving belt."

The other patent, dated 1874, was issued to Walter B. Walker of Cherokee Station, Kansas. Although Walker was living in Kansas at the time, he was originally from Ohio. The Walker design also incorporates an accordion device on a rail, but the wheels are arranged differently than on the earlier wheels. The written description says that this is an improvement on spinning-frames to provide "an apparatus to release the spindle when it is desired to cross the driving band for twisting." The Smithsonian has the patent model.[8]



Juanita and Franklin Breidenbaugh saved this wheel from oblivion.

Questions, questions, questions . . .

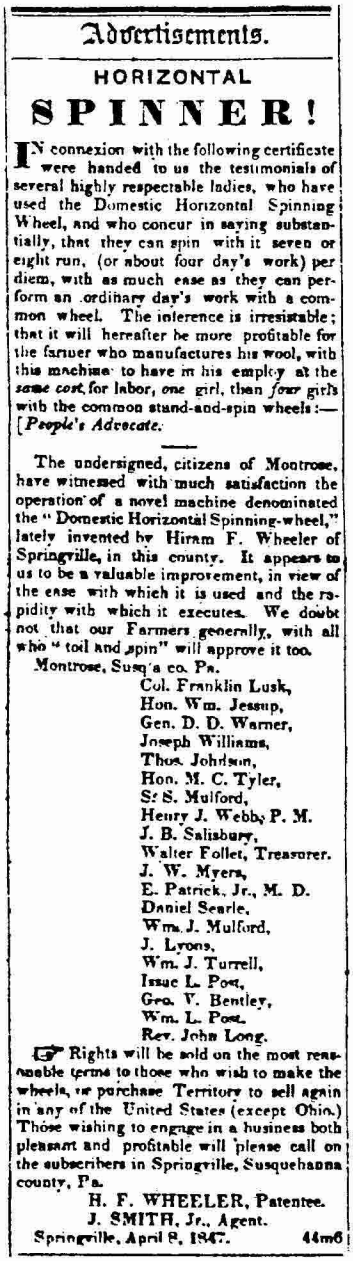
There are many new questions to be answered. Although a relatively large number of accordion/track wheels have survived, why do we know so little about them? Where were they made and by whom? Is there a connection between the track wheels from the Virginia and the Pennsylvania Mennonite communities? Was the wheel at the Mercer Museum really made by Hiram F. Wheeler? Any information spinners have about these wheels (or any moving spindle wheels), as well as these patents and patent models, will be gratefully accepted. The quest continues! ❖

Florence Feldman-Wood, of Andover, Massachusetts, gratefully accepts and gracefully shares information about moving spindle wheels. In addition to sleuthing out the origins of odd spinning wheels, she runs The Textile Detective, a networking resource for guilds and for people who present textile-related programs. She also reads mysteries and provides the editor of Spin·Off *with recommendations for change-of-pace reading.*

The photos on pages 95 and 96 are by Jerry Rainey, and the other photos in this article are by Florence Feldman-Wood.

---

[8]Thanks to Nelda Davis for her research on Walter Walker in Kansas.



Advertisements.

HORIZONTAL

SPINNER!

IN connexion with the following certificate were handed to us the testimonials of several highly respectable ladies, who have used the Domestic Horizontal Spinning Wheel, and who concur in saying substantially, that they can spin with it seven or eight run, (or about four day's work) per diem, with as much ease as they can perform an ordinary day's work with a common wheel. The inference is irresistable; that it will hereafter be more profitable for the farmer who manufactures his wool, with this machine to have in his employ at the *same cost* for labor, *one* girl, than *four* girls with the common stand-and-spin wheels:—[*People's Advocate.*

The undersigned, citizens of Montrose, have witnessed with much satisfaction the operation of a novel machine denominated the "Domestic Horizontal Spinning-wheel," lately invented by Hiram F. Wheeler of Springville, in this county. It appears to us to be a valuable improvement, in view of the ease with which it is used and the rapidity with which it executes. We doubt not that our Farmers generally, with all who "toil and spin" will approve it too.

Montrose, Susq'a co. Pa.

Col. Franklin Lusk,
Hon. Wm. Jessup,
Gen. D. D. Warner,
Joseph Williams,
Thos. Johnson,
Hon. M. C. Tyler,
S. S. Mulford,
Henry J. Webb, P. M.
J. B. Salisbury,
Walter Follet, Treasurer.
J. W. Myers,
E. Patrick, Jr., M. D.
Daniel Searle,
Wm. J. Mulford,
J. Lyons,
Wm. J. Turrell,
Issac L. Post,
Geo. V. Bentley,
Wm. L. Post,
Rev. John Long.

☞ Rights will be sold on the most reasonable terms to those who wish to make the wheels, or purchase Territory to sell again in any of the United States (except Ohio.) Those wishing to engage in a business both pleasant and profitable will please call on the subscribers in Springville, Susquehanna county, Pa.

H. F. WHEELER, Patentee.
J. SMITH, Jr., Agent.

Springville, April 8, 1847. 44m6

High-twist yarns for lively fabric

These yarns and bands are shown in color on the cover.

Spinning FOR Andean Weaving IN Suburban Massachusetts

by Debbie Watson

I HAVE BEEN SPINNING for about ten years, and most of my yarns have been for knitting. Early on, I tried to get rid of any overtwist in my spinning and to spin a soft, even yarn with a balanced ply.[1] But in the last two years, I've been spinning a different kind of yarn. It is tightly twisted, stringlike, and almost harsh. I use it for Andean backstrap weaving, and I intend to try some Andean knitting with it, but it could be used for any project requiring an almost indestructible yarn.

I learned to do Andean backstrap weaving several years ago in a workshop taught by Ed Franquemont, an anthropologist and handweaver who has worked in the Peruvian Andes since 1966 and has focused his studies especially on the weavers of Chinchero, near Cuzco, Peru. I was captivated by the beautiful patterns, by the structure of the weaving, and by the way in which this weaving is so completely an expression of the Andean culture.[2] A beginning weaver at the time, I was also fascinated by the backstrap loom. It's nothing more than several sticks or shed swords for manipulating a warp; the weaver herself provides the variable tension. And my fingers really loved doing the weaving.

Ed teaches the weaving with a commercial 3/2 perle cotton yarn, which is smooth and strong and comes in an array of bright colors. For several months after the workshop, I wove both short and long pieces using this cotton and some linen, but ultimately the fiber seemed dull in comparison with the wool yarns used in the Peruvian belts I had seen and begun to collect. The cotton also had an annoying tendency to pill on the string heddles, but I could find no commercial wool yarn strong or smooth enough to resist the abrasion of the weaving process.

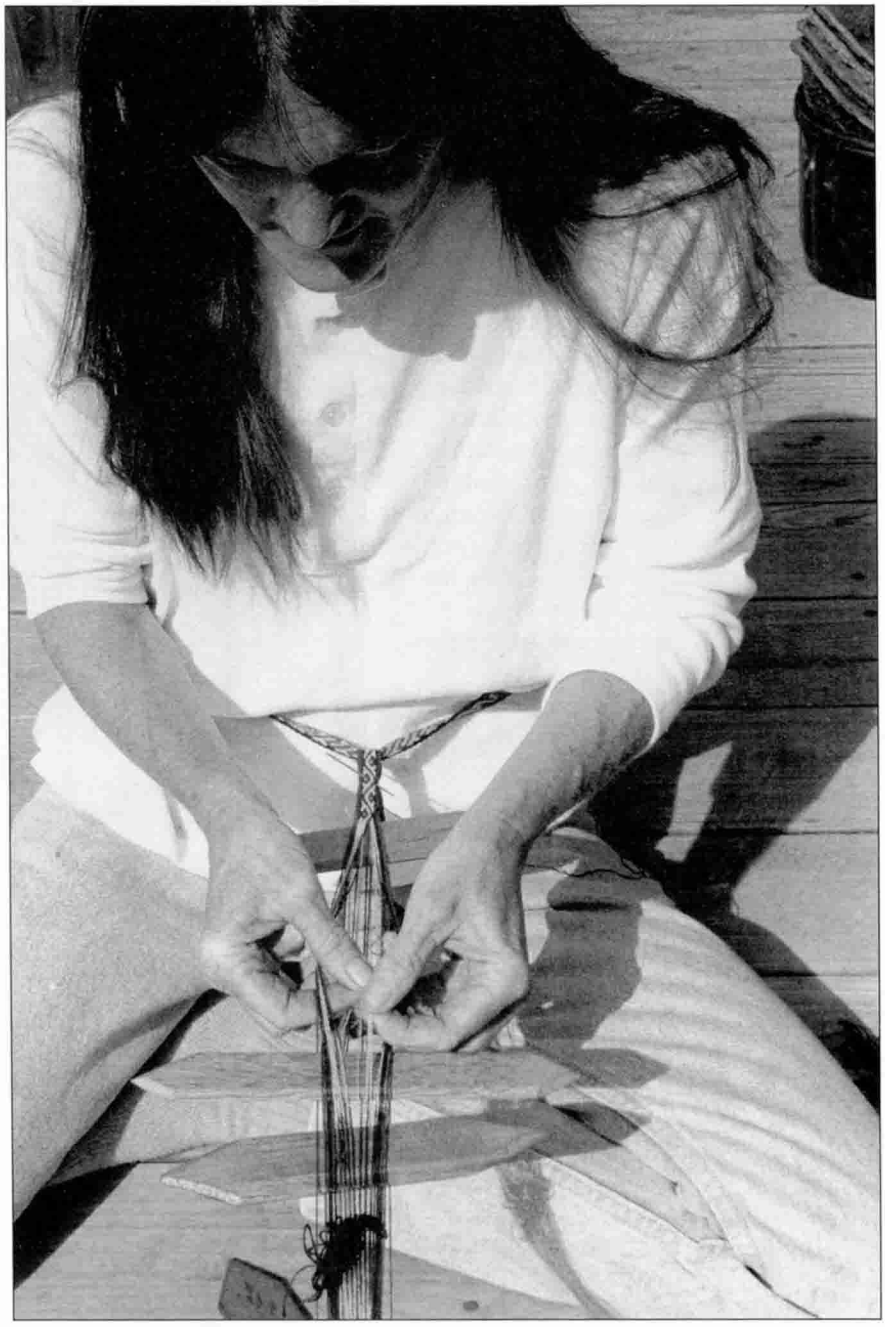
Andean weaving is warp-faced. That is, the warp yarns are packed so closely together that the weft is only visible as little beads going up each side of the belt—and practically invisible if the weft yarn is the same color as the selvedge threads. A belt is set up with two leases, one controlled by a shed loop and one by a set of string heddles. The action of these shedding devices on the warp threads, the rubbing of the warp threads against each other every time the shed changes, the manipulation of every warp thread on every pick for the pattern pick-up, and the movement of the shed swords against the cross in the warp create a great deal of abrasion. The warp must be strong enough to withstand this abuse and yet not look ragged at the end of the belt, where the pattern should be as clear as it was at the beginning.

[1] A plied yarn is "balanced" if it lies flat with no inclination to twist back on itself in either direction.

[2] For a wonderful account of the social context in which this weaving is done, see Franquemont and Franquemont, "Learning to Weave in Chinchero."

Traditional Andean spinning

In the same spring that I learned Andean weaving, Ed gave a workshop on Andean spinning for the Boston Area Spinners and Dyers (BASD). In that workshop, we learned to make yarn on drop spindles as it is spun in the Andes. There spinning is a household and community activity, done constantly by everyone whose hands are otherwise unoccupied. Young children learn to spin, and some of the best spinners are eight- to ten-year-old girls.[3] The spindle used in this part of the Andes is made of wood, with a shaft about 3/8 inch in diameter which tapers toward the top, and a disc-shaped whorl. It weighs a little over an ounce and is between 12 and 16 inches long. A larger and heavier spindle is used for plying.[4]



Debbie Watson found that the best way to get yarn that would withstand the rigors of backstrap weaving was to make it.

There are two steps in this method of spinning: yarn formation and surface finishing. In the first step, the spindle is held almost vertically in the right hand and turned slowly to put a little twist into the fiber, while the left hand draws out the fiber. The lightly twisted roving is then wrapped in a figure-eight on two fingers of the left hand. In the second step, the spindle is spun and dropped, and the yarn is fed from the figure-eight through the thumb and middle finger of the left hand, which corrects any irregularities and smooths out the yarn, while the spindle inserts the proper amount of twist. The finished yarn is again stored in a figure-eight, from which it is then wound onto the spindle shaft.[5]

For a while I tried to spin this way, hoping to accumulate some yarn to weave with. But much as I enjoyed spinning on my spindle, I didn't make significant progress. Reality for me is sitting behind the wheel of a car full of children, not walking around in the Andes. So I let the spindle go for a while, keeping up the weaving from time to time and promising myself that some day I would spin my own yarn.

The impetus for doing this finally came from two of my BASD friends, who decided that the three of us would do something different for the sheep-to-shawl competition at the New Boston (New Hampshire) Sheep and Wool Festival in 1989. Carol Markarian and I, who had both studied weaving with Ed, would weave a belt from either end of a handspun warp, and Carole Presberg would spin the weft on a Peruvian spindle. This unorthodox version of a Peruvian belt was a solution to the tension problem—we weren't sure that there would be anything sturdy to tie onto in the barn at New Boston. Also, since pick-up weaving goes slowly, we felt we

[3]Franquemont and Franquemont, "Learning to Weave in Chinchero," page 56.
[4]Franquemont, "Cloth Production Rates in Chinchero, Peru."
[5]Franquemont, "Cloth Production Rates in Chinchero, Peru."

would have more of a belt to show after three hours with two weavers working instead of only one. After two and one-half hours we would braid and wrap any warp remaining in the middle of the belt.

I was elected to spin the warp for the belt. An appropriate yarn would be smooth and strong with a high twist in the singles and overtwist in plying. In their warp-faced weaving Andean people always use a two-ply yarn, and it is almost always a Z singles with an S ply. (The S–2Z yarn is thought to have magical properties or is reserved for special uses.[6])

Although contemporary American spinners usually aim for balanced twist in their yarns, Andean spinners do not, at least for this purpose. They seem to prefer working with yarns that have a lot of twist energy. When working with commercial yarn, they will overspin already-plied yarn. One beautiful wedding sash I own is woven of very fine handspun yarn. In several places, small bits of the warp yarn escaped from the weaver. They stick out and are completely twisted back on themselves. It is clear to me that the yarn in this belt was overtwisted in the plying.

I am also weaving a belt and a bag with yarns which were spun in Peru. Although the yarns have been sitting around for a while (sometimes years) in leaden, tightly wrapped balls so unlike the fluffy ones that most of us turn out, the twist energy is still there, and it's a delight to weave with. It even seems that there is more energy in the patterns when the yarn itself has this much power.

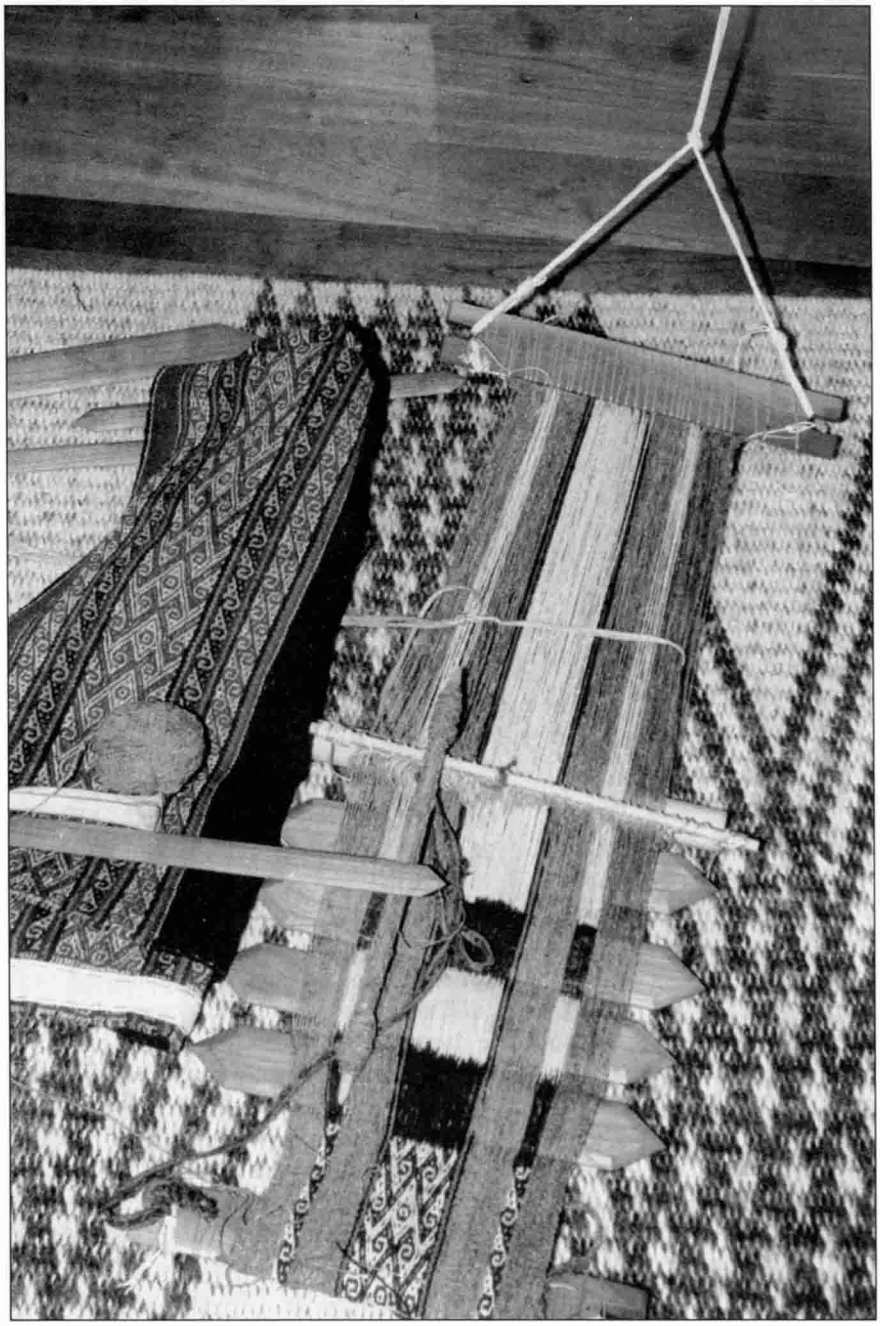
Using a modern wheel

I have tried several ways of spinning my Andean-type yarn on a wheel. In my first efforts I started by drawing out about eighteen inches of roving or batt to the thickness I wanted and treadling until I felt that enough twist had accumulated in the yarn. That was when the yarn began to turn back on itself, usually after about thirty (!) treadles on my Ashford wheel—even with the high-speed whorl.

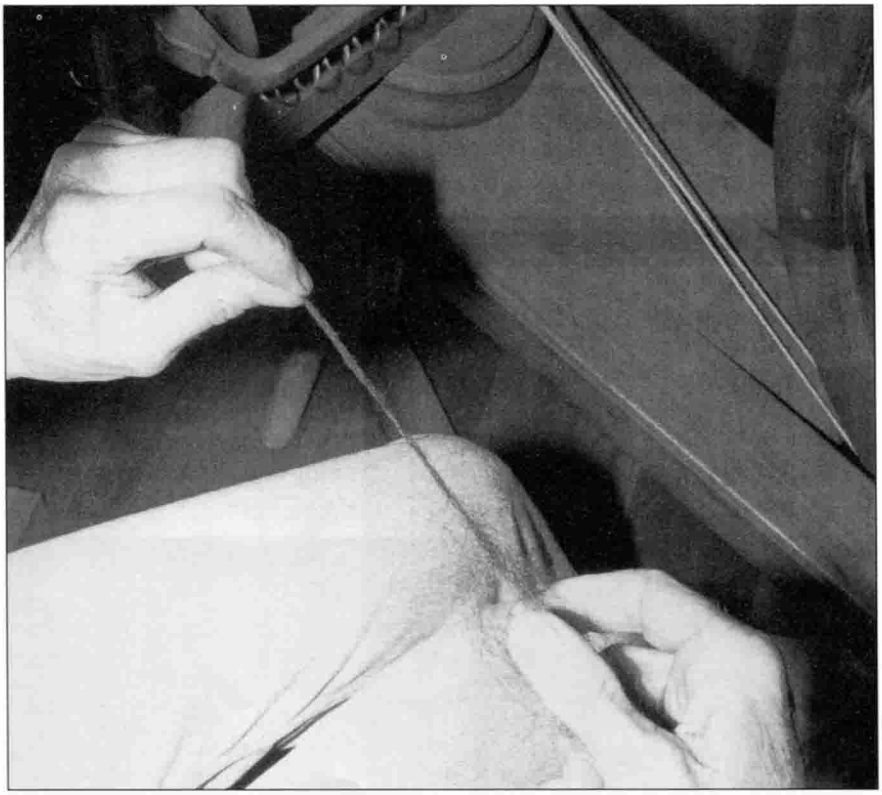
Now I spin on a Dixon double-treadle wheel set at its highest ratio, about 18:1, with the drive band as slack as possible. I draft the yarn in lengths of about two inches, keep it under constant tension, and let it wind onto the bobbin in the same two-inch lengths. Feeding the yarn on gradually means that it is less likely to turn back on itself and balk as it enters the orifice.

I spin right-handed on this wheel; that is, I hold the fiber supply lightly in my right hand and draw from that with my left hand, drafting the fiber toward the wheel. My right hand is more or less stationary, and my left hand moves only to draft. Depending on the fiber I am using

The warp-faced fabrics are intricately patterned. Sheds and pick-ups are controlled by string heddles and smooth sticks.



[6]Frame, "Ringlets and Waves" and "Are You Ready to Collapse?"; Franquemont, "Threads of Time"; Kula, "Spinning in Ancient Chancay, Peru."



The singles receive between four and eight treadles' worth of twist on an 18:1 wheel.

and the relative size of the yarn I am spinning (most of my yarn is fine), I treadle from four to eight times per inch or so of fiber. The fiber should be very well prepared so that the right hand doesn't have to correct inconsistencies which would lead to breakage in so highly twisted a yarn.

For plying, I tighten the drive band and feed the yarn from two bobbins as I normally would. The difficulty with plying this yarn is that the singles want to twist either together or back on themselves long before they reach the orifice, and a certain amount of extra tension is needed to keep them under control without altogether stopping the flow of yarn from the bobbins. Although it has no brake or tension device, the lazy kate my husband made works well for me, but I found that the yarn fed off my Ashford bobbins much too quickly. I had to keep one leg between the singles, and even then I had some difficulty. Another possibility would be to thread the singles through the spokes of a ladderback chair. The Andeans wind their singles together into a single ball or skein and ply from that arrangement.[7]

I aim for a plying twist angle of 45 degrees or more (compared to angles of about 14 to 20 degrees for soft knitting yarns). As I mentioned before, I am not concerned about a balanced yarn. If I were, I would need to put even more twist in the singles than I usually do. I'd do that by winding the singles yarn onto a skein winder and steaming it to set the twist, then winding the yarn into a ball from which I would spin it again, adding extra twist.

To make Andean-type yarn, however, I overbalance the singles twist to get more energy into the yarn. As I am plying, I check the twist angle of the yarn from time to time, and I treadle steadily to maintain consistency in the amount of overtwist I put into the yarn. Some fibers accommodate this overtwist better than others.

Fibers

I work mostly in wool, and have tried several different kinds. I started with Romney, which grows in my back yard. My Romneys have a nice luster that comes out in the weaving, but there's a big difference in fleeces even among my sheep. Some of my coarser fleeces make a yarn so smooth and slippery that the shed loops and heddles on the loom (also made of handspun) keep coming untied. The finer and slightly less lustrous Romney fleeces don't give that problem.

I've also tried a Coopworth lamb's fleece; Lincoln, English Leicester, and Cotswold fleeces (all three slippery); alpaca top; and some Polwarth. I tried the Polwarth, which I normally would have considered too fine, because I noticed that not all of my Peruvian-spun yarn felt the same. I had a ball of yarn which, for all its overtwist, still felt like a fine wool. I dissected it and was surprised to see how fine it was. So I have concluded that it is possible to spin almost any type of wool for this purpose, as long as the yarn is tightly twisted and will withstand the stress of the weaving. Even with such high twist, a yarn will retain some of the characteristics of the fleece. The Polwarth yarn, for example, feels much less harsh than the Romney yarn.

I spin a worsted yarn. I prefer to start with washed wool combed on my Meck combs, so that I have a long roving from which to spin. One of these rovings wound into a "puff" gives me twenty to thirty

[7]Franquemont, "Cloth Production Rates in Chinchero, Peru."

minutes of spinning. With short-stapled wool, I run it through the drum carder at least three times, tear the batts into strips, and draw the strips into roving. This works well, but the carded wool has many more neps than the combed wool. The Andeans give their fleece no preparation other than a slight teasing, and sometimes spin directly from the fleece.[8] I tried that with the Polwarth fleece. It worked, but not as well as my other preparations. I had more breakage than I like, and joining is difficult once the yarn has broken.

Using the yarn

I used to wind my yarn into skeins after spinning, but I don't do that now unless I am going to dye the wool. I wind the plied yarn directly from my bobbin into a tight, hard ball like the balls of yarn I have from Peru. Storage in balls helps set the twist somewhat, and balls are easy to use for warping. To start large weaving projects such as bags, shawls, and carrying cloths, Andean women have warping partners. Two women sit by stakes at either end of the warp, which might be 30 to 40 inches long, and toss the ball of yarn back and forth until the warp is made.

Andean weavers favor bright colors and these days almost always use chemical dyes. Formerly dyers worked with madder, cochineal, and other natural dyes, but the technology was lost with the advent of chemical dyes in the nineteenth century.[9] I used to dye exclusively with natural dyes, and don't have much experience with chemical dyes, but I've found that Gaywool dyes are easy to use on the miniscule skeins I need for a belt.

Andean pick-up weaving is a slow process that doesn't fit into our modern concepts of time and of getting things done in a hurry. But if Ed is giving a workshop in your area, I recommend that you take it. You'll get a glimpse of another culture. Meanwhile, you can use this kind of yarn for other warp-faced weaving, such as inkle weaving or card weaving. For those kinds of weaving, I'd probably aim for a balanced ply.

[8]Franquemont, *Cloth: The Andean Art.*
[9]Franquemont, "Threads of Time."

It has taken me a while to realize what kind of yarn I want to make, and I'm still not completely satisfied with my efforts. My belts are nice enough, but a little lifeless next to the Peruvian ones. I want to get even more twist energy into the yarn and to have that energy show in my weaving. It takes a long time, though, to spin this yarn in any quantity, and it is in some ways a taxing yarn to spin on a wheel. I almost wish it were possible for me to go about my daily business with a spindle in one hand and some fleece in the other, accumulating yarn without even thinking about it. ❖

Debbie Watson gardens, spins, weaves, and knits in Georgetown, Massachusetts. She occasionally assists Ed Franquemont in teaching his workshops and hopes to go to Peru some day. She is currently Dean of the Weavers' Guild of Boston.

Resources

Frame, Mary. "Are You Ready To Collapse?" *Spin·Off* 11:1 (Spring 1987): pages 41–46.

_____. "Ringlets and Waves: Undulations from Overtwist." *Spin·Off* 10:4 (Winter 1986): pages 28–33.

Franquemont, Edward M. "Cloth Production Rates in Chinchero, Peru." In *The Junius B. Bird Conference On Andean Textiles,* April 7–8, 1984, Anne Pollard Rowe, ed. Washington, DC: The Textile Museum, 1986.

_____. *Cloth: The Andean Art.* Ithaca, NY: AWASQA, Cultural Constructions, Inc., 1991.

_____. "Threads of Time: Andean Cloth and Costume." In *Costume as Communication,* Margot Blum Schevill, ed. Bristol, Rhode Island: Haffenreffer Museum of Anthropology, Brown University, 1986.

_____, and Christine Franquemont. "Learning to Weave in Chinchero." *The Textile Museum Journal, 1987.* Washington, DC: The Textile Museum, 1988.

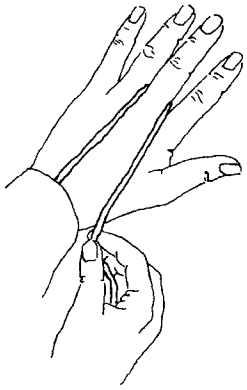
Kula, Gulli. "Spinning in Ancient Chancay, Peru." *Spin·Off* 14:3 (Fall 1990): pages 47–51.

An Andean Plying Technique

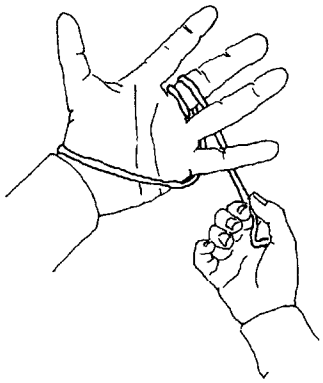
This handy technique was developed by Andean spinners long before ball-winders were invented. It's a great way to ply samples or leftovers, such as the little bit of yarn that is inevitably left over when you ply from two bobbins. Follow the drawings step by step and you'll soon get the knack of it.

Ed Franquemont shares these notes on the technique:

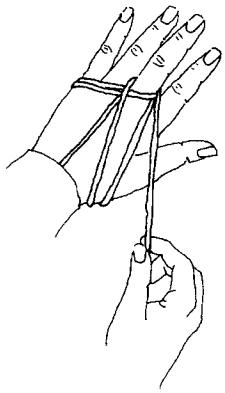
"Andean people spin regularly, and often, but not always, have a project in mind for the yarn on the spindle. Indigenous Andean cloth is always made of two-ply yarn, since 'all things need their mate,' an idea that reflects more about their philosophy of dualism than the strength of their yarn. People fill two spindles with yarn, and then wind off both to make a ball of doubled yarn which will be twisted. Since the two spindles hold different amounts of yarn, one spindle is emptied before the other. The spinner then winds the remainder on her wrist in a patterned way to find the end; this she teases open and splices with the end from the emptied spindle to make a continuous, knotless, doubled strand that can be wound onto the ball. She plies directly from this ball of doubled yarn, usually while she is on the go, walking from place to place. The 'spinning' that people see Andeans do in the streets is usually plying. . . . "



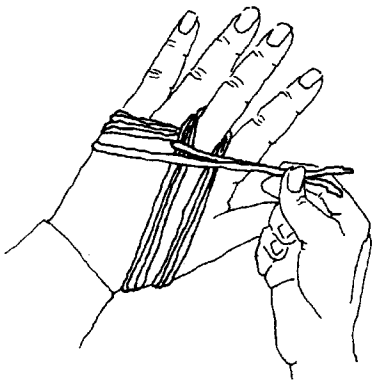
1. Hold your left hand (or right, if you're lefthanded) palm down. Tuck one end of the yarn into your cuff or watchband, and wind the yarn around your middle finger as shown.



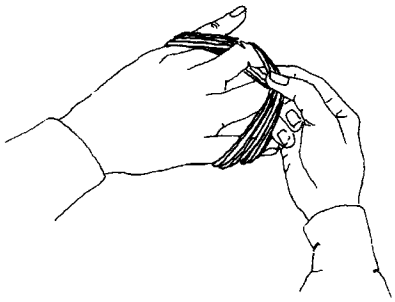
2. Turn your hand palm up. Bring the yarn across your palm and around to the back; wrap around your middle finger and return.



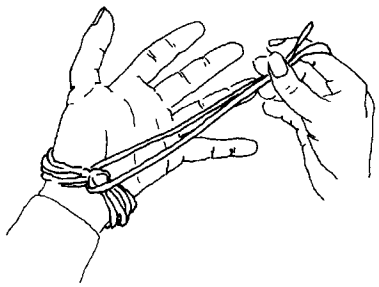
3. Palm down again. Bring the yarn up and around your middle finger and back down. Keep flipping your hand back and forth, winding around the middle finger from one side and then the other, until you run out of yarn. End your wrapping palm down with the end of the yarn coming up on the side near your little finger.



4. Hold both ends so they don't get tangled.



5. Pull all the loops off your middle finger. The first time you try this you'll have wound the yarn so tight that it will be hard to get your finger out! After that you'll wind more loosely.



6. Slide the yarn back down around your wrist like a bracelet. You're ready to ply.

CARDING IMPROVED THREE WAYS

Spinners know the importance of carding to prepare fleece wool for spinning. After learning the fundamental carding process with hand cards, many spinners are ready to speed up their carding for greater enjoyment of spinning itself. They may also be eager to use more advanced carding techniques and equipment to enhance the quality and versatility of their hand spinning by:

- Creating more uniform yarn through carding and blending large quantities of fleece.
- Color blending to produce an unlimited array of hues, tints, tones and shades from natural colored or dyed fleece.
- Blending fiber combinations for special purposes, such as wool and silk, mohair and wool, angora, alpaca or llama with wool for special properties of loft, elasticity or durability.

All of these tasks can be accomplished more quickly and with less effort on the MARK V drum carder. They become part of the creative art of spinning while relieving the spinner of the tedious task of hand carding. The MARK V drum carder is available from: Davidson's Old Mill Yarn, P.O. Box 8, Eaton Rapids, Michigan 48827, 517/663/2711.

What's in the wash?

by Pat Slaven

YOU HAVE SPENT DAYS, weeks, and months producing handspun yarn, and even longer knitting, weaving, or crocheting a garment. It has been dyed with loving care, and is perfect. You wear it over to a friend's for dinner and a plate of spaghetti lands on you (and your handspun blouse woven at thirty picks per inch). You put it in the wash, using cold water, your favorite laundry detergent, and a gentle cycle, but something isn't right. The fabric weathers the wash, but the color is decidedly different. It has a bluish glow. What happened?

The question really is, *what else was in the wash?* Laundry detergent contains much more than detergent. Let's take a look at the invisible extras that may make a difference.

For centuries, laundry was washed with soaps, also known as simple surfactants.[1] Unfortunately, soap is rendered partially ineffective by "hard" water (which is what we call water that contains calcium and magnesium). Hard water often causes a white, cakey build-up on faucets, teapots, or other objects.

Detergents became popular during the 1940s and '50s. Detergents are synthetic surfactants, combined with other agents. They do a better job of removing dirt than soap, and they are not weakened by hard water. The early detergents were not biodegradable and tended to cause a foamy build-up at the outlets of municipal sewage treatment plants.

When detergent manufacturers reformulated the surfactants to make them biodegradable, this problem was eliminated. However, the newer formulations tended to produce a gray dinge on clothes over time. Detergents containing polyphosphates were developed; gray dinge became a thing of the past, but once again the environment was jeopardized. Microorganisms loved the phosphates, ate them, and filled watercourses in the form of green algae. The formula had to be changed again.

Detergent manufacturers in search of the ever-white (not necessarily cleaner) wash introduced fluorescent whitening agents (FWAs). FWAs are a type of colorless dye that can act as an acid dye, as a direct dye, or both. FWAs do a good job of hiding dinge and yellowness. To date I have not found a commercial laundry detergent without FWAs; they appear to be ubiquitous.

Most commercial cloth already has been treated with FWAs. This additive makes white cloth look even whiter, provides an even base for dyeing, and covers the "creamy" color of cotton and wool. FWAs work best on cotton, rayon, nylon, silk, and wool.

FWAs can have unexpected effects on garments made of handspun. Generally, our fiber is untreated. We seek out the natural tones of fiber, instead of trying to even them out. We use color for effect. The effects of FWAs are especially apparent when they are applied to untreated fiber. A garment that goes into the wash a natural, creamy white can come out a harsh, bright, blue-white.

This change is frighteningly obvious under ultraviolet lights. If you have a chance to visit a night club with "black" lights, or have access to a fluorescent fish-tank light, take a look at regular white clothes: they have an eery glow because of the FWAs. Untreated handspun which has not been washed in commercial detergent doesn't glow in the dark.

What is the solution for the spinners and weavers of the world? The actions of FWAs are fairly irreversible. It is possible to strip FWAs out by using a discharge chemical, such as Rit dye remover, bleach, or thiosulfate. However, these can damage fabric if applied incorrectly.

Preventive vigilance is a better option. Wash white or light-colored items in soft water (because soap works better in it), using a mild soap or liquid dish detergent, such as Ivory or Palmolive. In medium- to dark-colored garments, the color changes due to FWAs will be much less noticeable. With these, you can test-wash a swatch of fabric or yarn, and use this to determine if the resulting minor color change is acceptable. ❖

Pat Slaven is a speedy spinner and has previously written articles on various subjects for Spin-Off. *When last heard from, she was headed for distant lands on textile-related projects.*

Resources

Needles, H. L. *Textile Fibers, Dyes, Finishes and Processes: A Concise Guide.* New Jersey: Noyes, 1986.

Tchobanoglous, G., and E. D. Schroeder. *Water Quality.* California: Addison-Wesley, 1987.

[1] *Surfactant* means a substance which acts on the surface.

Handspun Swatches

EACH YEAR, *Spin·Off* readers send us handspun swatches for possible inclusion in our traveling swatch collection. It's always fun to see what you're up to—knitting, weaving, crocheting, felting, or whatever—for outerwear, next-to-the-skin, or household fabrics. We invite you to submit your samples at any time.

Mount each swatch on an 8½" × 11" tagboard card along with a sample of the fiber(s) used and a one-yard mini-skein of the finished yarn. If you have a particular project in mind (or maybe have already finished one), a sketch or picture of the project is a nice addition.

Make sure each swatch is legibly marked with your name and address; a description of your fibers; notes on your spinning technique, fabrication methods, and finishing; the category you wish to enter; and anything else of interest. If your swatch is one of the year's best, you might even win a year's subscription to *Spin·Off*.

Clockwise from lower left:
Elizabeth Barnes, of Bethlehem, Pennsylvania, made three of the four swatches featured this year. For this first one, she spun the Romney shown into a two-ply that measures about 16 wraps per inch using a long draw and her Reeves Saxony wheel. After producing two blues and a pink with acid dyes, she knitted the swatch with a hip-length vest in mind. The yarn worked up not-too-tightly at 7 stitches and just under 6 rows to the inch. Elizabeth brushed the fabric gently while it was still damp from washing.

Anne Cook, of Northumberland, England, made a sample needlepoint swatch to work out the design for a cushion. She worked with a variety of small skeins, all leftovers from other projects. The variegated and solid-color yarn samples measure about 10 wraps to the inch, and were worked on 10/inch canvas.

Elizabeth Barnes took white-and-green variegated cotton sliver and dyed it blue with acid dyes. She used a charkha wheel to spin a three-ply yarn which measures about 22 wraps per inch and knits very comfortably at 7 stitches and 11 rows per inch. She wasn't sure when she sent in the sample what she would use it for, but we can easily imagine a wear-everywhere summer blouse.

For this unusual fabric, *Elizabeth Barnes* used a base of dark brown Corriedale cross fleece. The added color is noil silk unevenly dyed in medium shades of clear blue and green with acid dyes. Elizabeth carded the fibers together, to spread out the silk, but so as not to blend the fibers with each other. She spun the singles long draw and then made a two-ply on an antique Saxony-type wheel. The finished cardigan-front, U-neck vest is embellished with rows of yarn-over holes which parallel the front opening, and it sparkles with the added confetti colors. ❖

Calendar

TO ENTER

❑ **California**/regional. Spinners and Weavers Showcase, Yuba-Sutter Fair, July 26–Aug 3. Entries due between June 1 and July 1. Information: Beverly Field, Exhibits Coordinator, Yuba-Sutter Fair, 13th District Agricultural Association, 442 Franklin Ave., Yuba City, CA 95991. (916) 674-1280.

❑ **Colorado**/open. Handspun yarn contest, wool and cashmere fleece shows, sheep-to-shawl contest; sheep, llama, goat and alpaca shows in conjunction with the Estes Park Wool Market June 11–14. Information: Estes Park Wool Market, PO Box 1967, Estes Park, CO 80517. (303) 586-6104.

❑ **Colorado**/open. Handcrafted with Wool Contest, spinning, weaving, knitting, crochet, sewing. In conjunction with the Colorado Sheep and Wool Festival Aug. 1. Contact Dixie Frick, Cooperative Extension Office, 9755 Henderson Rd., Brighton, CO 80601. (303) 659-4150.

❑ **District of Columbia (Washington)**/open. Cap-i-Tails Yarns show, non-juried show of handspun yarn and headwear in conjunction with Convergence July 23–26. HGA members; June 12 deadline. Send SASE to Pru Hill, 2569 Rambling Rd., Vienna, VA 22181.

❑ **District of Columbia (Washington)**/open. Wonderful Wearable Art '92, juried exhibition and sale Nov. 13–15. Send SASE to Wonderful Wearable Art, PO Box 7517, Silver Spring, MD 20910. (202) 686-4588.

❑ **Illinois**/open. If the Art Fits, Wear It, fashion show of one-of-a-kind artwear Oct. 24 in Chicago. Slide deadline (up to 3 ensembles) Sept. 10. Prospectus: SASE to Textile Arts Centre, 916 W. Diversey Pkwy., Chicago, IL 60614. (312) 929-5655.

❑ **Massachusetts**/open. CraftAdventure '92 juried competition at New England Center, Eastern States Exposition, West Springfield, Aug. 28–30. Includes spinning, weaving, knitting, rugs, and other fiber categories; entry deadline Aug. 1. Brochure: CraftAdventure, Eastern States Exposition, 1305 Memorial Ave., West Springfield, MA 01089. (413) 787-0158.

❑ **Minnesota**/open. Fiber/Metal '92, juried exhibition and sale of contemporary, traditional and ethnic fiber and metal arts at Fine Arts Bldg., Minnesota State Fair Grounds, St. Paul, Oct. 2–3. Slide deadline June 15. Entry form: send SASE to Fiber/Metal '92, Sandra Stephens, 16029 Baywood Ln, Eden Prairie, MN 55346.

❑ **New York**/open. Northeast Regional Natural Colored Wool Growers Assoc. sheep show Oct. 19 in Rhinebeck, in conjunction with the New York State Sheep and Wool Festival Oct. 17–18. Entry deadline Sept. 15. Contact Becky Holberton, c/o Asbornsen, PO Box 26, Stuyvesant, NY 12173. (518) 758-7970.

❑ **Washington**/regional. Fiber Spectrum 1992, juried fiber show at Washington State Historical Museum, Tacoma, Nov. 1–29. Cash awards; residents of WA, OR, ID, MT, AK, BC, AB. Prospectus: Roberta Lowes, 11922 "A" St., Tacoma, WA 98444. (206) 531-3257.

❑ **Wisconsin**/open. A Celebration of Creativity, 16th annual fiber and textile exhibit July 13–31 in Crossman Gallery, University of Wisconsin—Whitewater campus. Entry deadline June 15. Contact Alice K. Iverson, 131 Nelson Rd., East Troy, WI 53120.

❑ **Wyoming**/open. Non-juried fiber arts show at Central Wyoming College in Riverton, Aug. 20–Sept. 20. All fiber media; pieces juried to travel. Entry deadline Aug. 12. Prospectus: Susan Soper, 7090 Riverview Rd., Riverton, WY 82501. (307) 856-1662.

FESTIVALS AND GATHERINGS

❑ **California,** July 18. Mountain Weavers Guild 6th annual Spin-In at the Senior Citizens' Center, 675 Grandview Dr., Twin Peaks, CA. Contact Anita Holmes, (714) 337-1576 or 337-1051.

❑ **California,** Aug. 22–30. Monterey County Fair Wool Show, contests, demonstrations, auction. Information: Monterey County Fair, 2004 Fairgrounds Rd., Monterey, CA 93940. (408) 372-5863.

❑ **Colorado,** June 11–14. Estes Park Wool Market, workshops, shows, contests, sales. Contact Estes Park Fairgrounds, PO Box 1967, Estes Park, CO 80517. (303) 586-6104.

❑ **Hawaii,** Aug. 20–23. Second Annual Banana Poka Basket Retreat in Koke'e, Kauai. Classes in banana poka vine basketry and lauhalla weaving. Contact Koke'e Natural History Museum, PO Box 100, Kekaha, Kauai, HI 96752. (808) 335-9975, FAX (808) 335-6131.

❑ **Michigan,** June 13–14. Fiber Faire and Michigan Border Collie Dog Trial at St. Clair County Fairgrounds and Farm Museum, Goodells. Shows, sales, demonstrations, contests, workshops. Contact Fiber Faire, 14050 Hunt Rd., Capac, MI 48014 or call Colleen Boyd, (313) 984-4847.

❑ **Michigan,** July 16–19. The Knitting Guild of America's Midwest Seminar at Calvin College in Grand Rapids. Featured designer is Lily Chin. Contact TKGA, PO Box 1606, Dept. PRS, Knoxville, TN 37901 (send SASE with 58 cents postage for brochure). (615) 524-2401.

❑ **Michigan,** Aug. 6–8. Fiberfest 92, forums, contests, demonstrations, shows, and sales. Kalamazoo Co. Fairgrounds, Kalamazoo. Includes Llamafest. Llama information: Dar Snyder (616) 668-3089 or Leah Bird, 657-6379. Brochure: Fiberfest 92, PO Box 112, Hastings, MI 49058. (616) 765-3047.

❑ **Missouri,** Sept. 5–7. World Sheep Festival at Bethel German Colony, demonstrations, contests, sales. Information: Bethel Sheep Festival, PO Box 107, Bethel, MO 63434.

❑ **Montana,** June 13–14. 3rd Big Sky Fiber Festival in Hamilton. Shows, workshops, demonstrations, sales. Contact Judy Colvin, 4572 Montana Trail, Stevensville, MT 59870.

❑ **New Hampshire,** Nov. 6–8. The Gathering, workshops sponsored by the Northeast Handspinners Assoc. at The Lower Shaker Village, Enfield. Registration packet: send SASE with 52 cents postage to Diane Trussell, RFD 1, Box 3370, Solon, ME 04979. (207) 643-2540.

❑ **New Jersey,** June 12–14. Fiber Retreat in the Ramapo Mts., sponsored by Palisades Guild of Spinners and Weavers. Contact Karen Schoenberger, (201) 779-7116.

❑ **New Jersey,** Aug. 6–9. The Knitting Guild of America's 1st Annual East Coast Conference at Stevens Institute of Technology in Hoboken. Featured designer is Lily Chin. Contact TKGA, PO Box 1606, Dept. PRS, Knoxville, TN 37901 (send SASE with 58 cents postage for brochure). (615) 524-2401.

❑ **New York,** Aug. 9. Spinners and Dyers All, demonstrations and sales at The Farmers' Museum, Lake Road, Cooperstown. Free admission for demonstrators and vendors. Contact the museum at PO Box 800, Cooperstown, NY 13326. (607) 547-2593.

❑ **Oregon,** June 19–21. The Black Sheep Gathering, shows, sales, workshops, demonstrations at Lane County Fairgrounds, Eugene. Contact Black Sheep Gathering, PO Box 1002, Drain, OR 97435. (503) 836-7048.

❑ **Pennsylvania,** June 19–20. Forest Spin-In at Cook Forest Sawmill Center for the Arts, Cook Forest State Park, Cooksburg. Exhibits, sales, demonstrations, contests, wheel doctor. Silk blending workshop with Barbara Cabral, June 19. Contact Ruth Walker-Daniels, RD 2, Box 124, Oil City, PA 16301. (814) 676-6268.

❑ **Wisconsin,** Sept. 5–6. Wooll Gathering in Waukesha, shows, sales, demonstrations, workshops. Information: Wooll Inc., S104 W38751 Hwy. NN, Eagle, WI 53119. (414) 594-2980.

CONFERENCES

❑ **California,** Mar. 10–14, 1993. Earth Spirit 1993, biennial conference of the Assoc. of Southern California Handweavers in Riverside. Contact Jo Anderson, 26335 Potomac Dr., Sun City, CA 92586. (714) 672-4435.

❑ **Colorado,** June 11–14. 1st Annual Alpaca Owners and Breeders Association Conference in Estes Park. Instruction, shows, sales. Call Antoinette Brewster, (212) 628-1823.

❑ **District of Columbia (Washington),** July 23–26. A Capital Convergence, biennial conference of the Handweavers Guild of America. Information: SASE to PO Box 4038, Lutherville, MD 21093-4038.

❑ **Iowa,** June 3–6, 1993. Midwest Weavers Conference in Cedar Falls with Randall Darwall, speaker. Exhibits, workshops. Contact Virginia Cleaver or Karen Kitchen, 111 Main St., Cedar Falls, IA 50613.

❑ **Pennsylvania,** Sept. 11–14. Fiber Focus II, workshops on spinning with Celia Quinn, felting with Karen Page, weaving with Sharon Alderman, Sigrid Piroch, Donna Sullivan. Touchstone Center for Crafts, PO Box 2141, Uniontown, PA 15401. (412) 438-2811.

❑ **Vermont,** June 25–29. International Llama Association 11th Annual Conference at Sheraton Burlington Hotel in Burlington. Speakers, demonstrations, exhibits, sales, post-conference clinics. Call Sandy Chapman, (303) 756-9004.

❑ **Washington,** July 11–17, 1993. Fiber Fanfare 1993, biennial conference of the Assoc. of Northwest Weavers' Guilds in Seattle. Commercial exhibitors welcome. Information: Fiber Fanfare, PO Box 1153, Woodinville, WA 98072.

❑ **Canada, Quebec,** June 6–7. Quebec Weavers' Assoc. conference at Le Cottage Hotel in Sainte-Foy. Contact La Maison Routhier, 3325 rue Rochambeau, Sainte-Foy, Quebec G1X 3Y4. (418) 654-4296.

EXHIBITS, SHOWS & SALES

❑ **Illinois,** Oct. 18. Juried fashion show of one-of-a-kind wearables at The Fine Line

Creative Art Center, 6N158 Crane Rd., St. Charles, IL 60175. (708) 584-9443.

❑ **Florida,** July 4. 4th on Flagler, folk artists' sales in West Palm Beach. Contact City of West Palm Beach, PO Box 3366, West Palm Beach, FL 33402. (407) 659-8004.

❑ **Maryland,** July 26. Tour of 17 Montgomery County farms; sales, demonstrations. Brochure: Montgomery Co. Office of Economic Development, 101 Monroe St., Rockville, MD 20850. (301) 217-2345.

❑ **Massachusetts,** Aug. 28–30. Craft-Adventure '92, exhibits, sales, workshops, demonstrations. New England Center, Eastern States Exposition, 1305 Memorial Ave., West Springfield, MA 01089. (413) 787-0158.

❑ **Missouri,** Nov. 13–15. Annual sale by Weavers' Guild of St. Louis at Des Peres City Hall, Manchester at Ballas Road, just off 270. Information: call (314) 421-1844 or Valerie Puntney, 508 Springdale Dr., Belleville, IL 62223. (618) 235-0531.

❑ **New Hampshire,** Aug. 1–9. 59th annual Craftsmen's Fair at Mt. Sunapee State Park, Newbury. Exhibits, sales, workshops, demonstrations. Contact League of New Hampshire Craftsmen, 205 N. Main St., Concord, NH 03301. (603) 224-1471.

❑ **North Carolina,** July 16–19. 45th annual Guild Fair at Asheville Civic Center. Exhibits, sales, demonstrations, children's workshops. Contact Folk Art Center, PO Box 9545, Asheville, NC 28815. (704) 298-7928.

❑ **Pennsylvania,** through June 28. 39th annual exhibit by Philadelphia Guild of Handweavers at American Swedish Historical Museum, 1900 Pattison Ave., Philadelphia. Information: Myra Reichel, (215) 565-4139.

❑ **Tennessee,** May 22–Aug. 14. Summer Faculty and Staff Exhibition. Arrowmont School of Arts and Crafts, 556 Parkway, Gatlinburg, TN 37738-0567. (615) 436-5860.

❑ **United Kingdom,** Oct. 10–25. A Goodly Yarn, national exhibition by the Association of Weavers, Spinners and Dyers at Ingatestone Hall. Contact Vicky Thomas, Rawlins, 137 Main Road, Danbury, Chelmsford, Essex CM3 4DL. (0245) 413833.

INSTRUCTION

❑ **Arizona,** July 13-17: Explore the World of Fibers. Additional "Get-a-Way" classes in weaving and other topics are offered in Bisbee throughout the year. Contact Spin 'n Weave, 3054 N. First Ave., Tucson, AZ 85719. (602) 623-9787.

❑ **California,** summer. 1-week workshops in weaving, fiber jewelry, paper, kumihimo by Johanna Erickson, Donna Kaplan, Bobbie Irwin, Thomasin Grim, and others. Brochure: Mendocino Art Center, PO Box 765, Mendocino, CA 95460. (707) 937-5818.

❑ **New Hampshire,** July 8–11. Workshop with Rita Buchanan on Spinning More and Spinning Better. Harrisville Designs Weaving Center, Harrisville, NH 03450. (603) 827-3996.

❑ **North Carolina,** summer. Well-known instructors offer 2-week fiber workshops in dyeing, basketry, weaving, color, design, and Japanese textiles at Penland School, Penland, NC 28765. (704) 765-2359.

❑ **Oregon,** June 13–15. Spinning Getaway in Sisters includes workshops, llama hike. Contact Marian Lee, PO Box 200, Beavercreek, OR 97004. (503) 632-6249.

❑ **Pennsylvania,** July 17–19. Creating Felted Clothing Accessories with Susan Tornheim. Additional weaving and dyeing workshops with Norma Smayda, Dan Wiener, Sarah Haskell, Micala Sidore at Rob Roy Tavern School of Weaving, 471 Middle Rd., Lewistown, PA 17044. (717) 242-3028 or (800) 547-6242.

❑ **Tennessee,** summer 1992. Arrowmont School offers a variety of 1- and 2-week workshops in weaving, felting, basketry, dyeing by noted instructors. Brochure: Registrar, Arrowmont School, PO Box 567, Gatlinburg, TN 37738. (615) 436-5860.

❑ **Tennessee,** Oct. 17. Handspinning workshop with Marney Blair Olson. Additional classes throughout the year in traditional crafts sponsored by Historic Rubgy, Rugby Commissary, PO Box 8, Rugby, TN 37733. (615) 628-5166.

❑ **Texas,** June 8–12: basic spinning with Fay Drozd. Oct. 15–17: Spinfest with Mabel Ross. Oct. 19–21: Knitting multi-colored ethnic sweaters with Priscilla Gibson-Roberts. Weaving workshops also scheduled. Hill Country Arts Foundation, PO Box 176, Ingram, TX 78025. (512) 367-5121.

❑ **Vermont,** June 1992 and 1993. Intensive weaving instructors' course at Fletcher Farm Craft School, Ludlow. 14-day sessions; Rachael Emmons, instructor. Send SASE to Ervin Henecke, RD 2, Box 33, Crown Point, NY 12928.

❑ **Virginia,** through October. Weekend classes in spinning, dyeing, knitting. Wool and Wabbit Spinning Farm, Rt. 1, Box 778-A, Bassett, VA 24055. (703) 629-4372.

❑ **Canada, Alberta,** June 1–5. Fibre Week, workshops in spinning, weaving, basketry, knitting, paper, quilting, and sewing at Olds College. Contact Extension Services, Olds, AB T0M 1P0. (403) 556-8344.

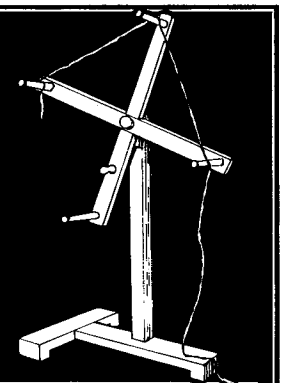
TRAVEL

❑ **Arctic,** June 29–July 6. Arctic Experience sponsored by Homan Eskimo Co-op includes 5-day workshop on qiviuq spinning, lichen dyeing, and knitting. Wendy Chambers, 21 Boxwood Cres., Whitehorse, Yukon, Canada Y1A 4X8. (406) 633-2530.

❑ **Peru,** June 30–July 22. Weavers' Trek includes walking tour, visits to markets and Inca ruins, weaving lesson. Contact Betty Davenport, 1922 Mahan Ave., Richland, WA 99352. (509) 946-4409.

❑ **Scotland,** Fall 1992. Needlecraft tour with Claire Bryant. Castle accommodations; includes weaving and spinning demonstrations, classes. SASE to Claire Bryant, PO Box 706, Aberdeen, NC 28315.

Calendar events of special interest to spinners are printed free of charge as a service to our readers. Please send your event information at least 10 weeks prior to the month of publication to "SPIN·OFF Calendar," 201 East Fourth Street, Loveland, CO 80537. Listings are made on a space-available basis. While we try to include as many events as possible, we cannot guarantee that your listing will be included.



Product News

by Sharon Altergott

Treetops Colour Harmonies (formerly Treetops Woolworks) announces three new *Colour Harmonies* for 1992—Ocean Twilight, Rosella Plumes, and Bush Tucker. See them at Convergence '92 and get a free herbal moth repellent sachet with a $15 purchase of Treetops products. Please note that designer/ owner, Nancy Ballesteros, has a new address—6 Benwee Rd., Floreat, West Australia, 6014, Australia. In the United States, contact Rosemary Carlson at (918) 335-0094. A new representative in New Zealand is Jeannette Green, 15 Woodfern Cres., Titirangi, Auckland, New Zealand. (09) 817-8579.

Lou Ellen Ruesink is the new owner of **Texas Fibers.** She is closing out the exotic fibers and yarns carried previously and will be concentrating on Texas-produced fibers. These will include Rambouillet fleeces and top. Contact her at 1902 Lawyer, College Station, TX 77840. (409) 693-0774.

Want to block your wool yarn without eliminating its elasticity? **Bryan's Blocker** may be the answer. A sliding bar is pulled up by the wool during drying. The bar can also be kept from sliding to set the twist even in cellulose fibers. After transferring the yarn from spinning wheel to blocker, you can immerse the removable frame (made from PVC pipe) in the bathtub. The blocker is easily taken apart for storage. Cost is $49.95 plus shipping. It's available from Bryan's Blockers, RR 5, Box 221, Menomonie, WI 54751. (715) 235-1044.

Inda Farm Enterprises announces the opening of *The Inda Farm Fiber Factory.* Services and products available include custom carding, fiber and color blending, custom dyeing, dyed and natural roving—wool, mohair, or blends—and hand-painted Inda Farm yarn. Write for a free brochure to 26336 Crow Rd., Eugene, OR 97402, or call (503) 345-9498.

The ***New Fiberworks Sourcebook,*** by Bobbi A. McRae, to be published in 1992, will update the information in both of her previous mail-order guides. It will include expanded listings of suppliers for spinning, weaving, dyeing, papermaking, knitting/crochet, basketry, quiltmaking, surface design, stitchery, and more, as well as new sections on textile conversation services, computer bulletin boards, gift items for fiber artists—even other related sourcebooks. The new edition will contain a FiberMarket section of small, inexpensive ads, in addition to a free general listing of each company. For information on being considered for inclusion in the *New Fiberworks Sourcebook,* send a SASE ($.52 first-class postage) to Update, PO Box 49770, Austin, TX 78765-9770.

Louët Sales has added several new spinning fibers to their line of more than 30 quality fibers. These include a dyed black mohair and medium brown alpaca. Write to RR 4, Prescott, ON, Canada K0E 1T0, to find the dealer nearest you.

Cambrian Designs offers a two-yard skein winder that is floor-standing, constructed of rock maple, and ready to finish. It retails for $60. Wholesale inquiries are welcome. Write to Cambrian Designs, PO Box 523, Eatonville, WA 98328.

Cashmere America markets ready-to-spin cashmere and cashgora direct to the retail public. Look for their booth at Convergence '92, write for their free information brochure, or send $11 for their sample card to The American Cashmere Goat Marketing Co-operative, Box 1105, Castle Rock, CO 80104. (303) 877-7801. ❖

Classifieds

NOTICES

TO PLACE A CLASSIFIED AD for the next issue, send your ad along with payment eight weeks prior to the month of publication. Only $1.25/word ($25 minimum) or $45/col. inch (camera ready). **Payment must accompany ad.** VISA/MC accepted with account number and expiration date. Send to **Interweave Press, Spin-Off Classified Ads,** 201 East Fourth Street, Loveland, CO 80537.

CANADA'S LARGEST lamb, wool, and sheep festival—*"Sheep Focus '92"*—will be held July 17–19, 1992 at Erin, Ontario, Canada. For information, write the **Ontario Sheep Marketing Agency,** 50 Dovercliffe Road, Guelph, ON, Canada N1G 3A6 or call (519) 836-0043.

CARDING: $2.75/LB. Clean weight. Ashford dealership. Send SASE to **The Joyful Carding Co.,** HC80 Box 703, Piedmont, SD 57769, or call (605) 787-5415 or 923-1535.

COME TO THE *WOOLL GATHERING* in Waukesha, Wisconsin Sept. 5–6, 1992, and enjoy a weekend of country fiber, fun, and education. For more information, contact **Woolll Inc.,** S104 W38751 Hwy. NN, Eagle, WI 53119.

CUSTOM FIBER PROCESSING. Call or write for free brochure. **Inda Farm Fiber Factory,** 26336 Crow Road, Eugene, OR 97402. (503) 345-9498.

BED & BREAKFAST at GREEN HILL FARM

45 minutes from Acadia National Park. Spinner-owned.
RR1, Box 328, Ashville, ME 04607
(207) 422-3273

Announcing
"Handcrafted With Wool Contest"
featuring the following categories:
- Spinning
- Weaving
- Knitting
- Crocheting
- Sewn with wool fabric

COLORADO SHEEP & WOOL FESTIVAL
August 1, 1992

For more information, contact:
Dixie Frick at **Cooperative Extension Office,** 9755 Henderson Rd., Brighton, CO 80601, **or call** (303) 659-4150

HANDSPINNERS DREAM.
Own your own ***CORMO*** sheep. Fine, long staple, clean, high-yielding wool. Ewes and rams for sale at all times. Fleeces available April 1992. Call for info. and to get on mailing list.
Barbara S. Redd,
PO Box 237, La Sal, Utah 84530.
(801) 686-2321 or 686-2221

The Clearing
Corriedale Sheep & Wool
(607) 962-8788
Please send LSASE for information and sample.
Richard M. Luce
1280 Sexton Hollow Road
Painted Post, N.Y. 14870

21 COTTON TYPES
and/or forms from $2.50/lb.
Cotton Card $1* Sampler $19*
Carded cotton w/nopps $5.00*
Ready-to-spin Cashmere $9/oz*
(*shipping included in U.S.)
Wool Station, 4218 136th St. NE
Marysville, WA 98271 • (206) 653-2604

BEAU MONDE
HANDSPINNING STUDIO & CUSTOM CARDING SERVICE
Save by processing *your* fleeces into Rainbow Batts or Rovings
Exotic Fibers • Lessons • Yarns
Cashgora, Silk and Angora sold by the ounce
$3.00 for brochure & newsletter
Rt. 30 Box 687, Pawlet, VT 05761
802-325-3645 in N. Rupert

THE LAMBDROMAT

CUSTOM FIBER PROCESSING SERVICE

SPECIALIZING in fine wools, exotics & blends
scouring • custom dyeing • blending • carding
Charges based on *finished* weight

READY TO SPIN FIBERS!!
rainbow rovings & batts • natural & dyed fibers
exotic fibers • blends • mohair • variety of wools

Call or write for our FREE brochure
Fiber Samples and Color Palette $5.00

THE LAMBDROMAT
353-C E. 10th Street, Suite 526
Gilroy, CA 95020
(408) 848 - 6442

25% OFF FIRST ORDER !!

CUSTOM SPINNING of your wools to your specifications. Minimum 150 lb. **Custom Carding,** $10 minimum. Write or call for guidelines. **Wilde Yarns,** PO Box 4662-F, Philadelphia, PA 19127-0662. (215) 482-8800.

FOR SALE: GERMAN ANGORAS. Large, Award-winning stock. Dense, beautiful wool. $75 and up. **Eileen Daniels,** Lake Drive, Brodhead, WI. 53520. (608) 862-3664.

TAOS VALLEY WOOL MILL . . . New scouring and custom carding service. Lowest rates, conscientious handling. SASE for price list, PO Box 374, Arroyo Hondo, NM 87513. (505) 776-2925.

WHITE ROSE CASHMERES, imported and domestic stock. Bucks, does, kids. Quality fleece. Request sales list **Gina Hagis,** Rt. 1 Box 181, Fries, VA 24330. (703) 744-7363.

WOULD YOU LIKE TO SPIN & WEAVE in a secluded country bed & breakfast surrounded by the northern California redwoods, minutes from the rugged Pacific coast? We offer lessons for beginners and advanced. We are located 200 miles north of San Francisco. **Elfie's Place,** PO Box 403, Klamath, CA 95548. Phone (707) 482-4675.

Black Ram Ltd.

Carding Service • Specializing in Natural Colored Fleece • Buy our Corriedale fleece or send your own for processing • 20% mohair/wool dyed blend $16/lb + postage & handling. 20% Tussah silk & natural colored wool batts $20.50/lb (+p&h). Please send for current price list & info. Owned & operated by Bob & Sue Salsbury. **BLACK RAM LTD.,** 5100 Eldora Rd., Waterloo, IA 50701. (319) 235-6181.

WOODCHUCK PRODUCTS
Maker of Fine Spinning & Weaving Tools
has moved to:
114 Woodside Drive
Clarks Summit, PA 18411
(717) 586-6162

EQUIPMENT

ASHFORD TRAVELLER WHEELS. Unfinished kit $169 postpaid through 12-92. **Handspun n' Homemade,** RD 1 Box 404E, Derry, PA 15627. PA residents 6%. NO OVERSEAS.

CARDING VERSATILITY with our interchangeable drums for all wools and exotics. **Motorizing Unit** available. **New Triple Picker** for fantastic opening of wool, mohair, and specialty fibers. We pay duty and freight. Phone for details or write for free brochure. **Patrick Green Carders, Ltd.,** 48793 Chilliwack Lake Rd., Sardis, BC, Canada V2R 2P1. (604) 858-6020.

CHARKHA SPINNING WHEELS FROM INDIA with skein winder, 3 spindles, and instructions: $84 postpaid. **The Woolery,** RD 1, Genoa, NY 13071. (315) 497-1542.

FRICKE CARDERS—Chain drive Drum Carders. Metal and wood frames; motorized and manual models. *Only carders guaranteed for life in writing.* Choice of card cloth. Wool and Cotton Hand Carders; Flickers; Blending Boards. All items made in USA. Send $.52 SASE for catalog: **Fricke Enterprises,** 8702 State Road 92, Granite Falls, WA 98252. (206) 691-5779.

INDUSTRIAL CARDING MACHINE. 12' long, Fine carding cloth cards wool, wool/exotic blends into beautiful roving/batts, $8,900. (414) 822-8282 (Wisconsin).

MECK ENGLISH FLAT COMBS and Russian type paddle combs available. For more information, send SASE to **J.A. Meck,** PO Box 756, Cornelius, OR 97113. (503) 628-2696.

NEW, *SLICKER-LICKER,* an optional card cloth for small roller on *Fricke Drum Carders.* Tested on Merino, Alpaca, Llama, etc; *excellent* results; minimal buildup. Send SASE for info: **Fricke Enterprises,** 8702 State Road 92, Granite Falls, WA 98252. (206) 691-5779.

FIBERS

A COSTLY MILL ERROR—You profit! High-quality *Bombyx mori* silk and tussah silk rovings were cut into 1" to 2" lengths. Now great for dyeing, blending, and spinning. Both silks available in limited quantities, packaged separately at $16 per 8-oz bag. Hurry order now! **Custom Handweaving,** Dept SCT2, PO Box 477, Redondo Beach, CA 90277-0477.

A SPINNER'S DREAM—Have you spun silk? Now is your chance! We have commercially degummed and dyed silk fiber in 15 exciting colors at $16 per 8-oz. bag. Quantities limited, hurry! Send a #10 (large) SASE ($.55) for list of colors to **Custom Handweaving,** Dept. SCT1, PO Box 477, Redondo Beach, CA 90277-0477.

ABSOLUTELY CLEAN CORMO FLEECE. From small flock in jackets, wellskirted for unbelievably soft, fine spinning. Samples: large SASE +$2. **Salt Lake Weaver's Store,** 1227 East 3300 South, Salt Lake City, UT 84106. (801) 486-1610.

AFFORDABLE CORRIEDALE FLEECES. White, highly crimped, clean and skirted. Send $2 for generous sample and prices. **Creekside Corriedales,** RD 2 Box 311, Troy, PA 16947. (717) 297-4518.

ALPACA WOOL from herd of 40, Chris Switzer. 10 colors available—skirted when shorn, hand-sorted, clean, and high-quality. Two pages of info on spinning alpaca & llama with samples, send $1 + LSASE. 1 oz sampler (handful 5 colors) $3.50 + $.75 postage. Solid colors available in 2 oz/$5.50, 4 oz/$10, 8 oz/$20, 1 lb/$38, half-fleece (2½ lbs)/$90 plus postage. Come see our farm—weanling pairs for breeding and wool animals available. **Switzer Land Alpacas & Llamas,** PO Box 3800, Estes Park, CO 80517. (303) 586-4624.

AN AFTERNOON DELIGHT—spinning our silky, soft wool from our Romney and Finnsheep flock. Catalog $1. **Meadowgreen Farm,** 3965 Kings Valley Hwy, Dallas, OR 97338.

ANGORA PLUCKED $5.50/OZ, sheared $4/oz, sheared, carded $6.50/oz postpaid. SASE information. **Nancy Barnett,** Rt. 2, Box 74, Baker, FL 32531.

A-1 PREMIUM FLEECES FROM ROCK CREEK SHEEP. Lincoln, Romney, crosses, colored, white. Samples $2, refundable. 4221 Sam's Valley Rd., Gold Hill, OR 97525. (503) 855-7343.

AUSTRALIAN MOORIT MERINO. Beautiful champion fleeces. Full range natural colors. Send SASE to **Australian Originals,** Lynn Robinson, Skidmore Fountain Bldg., 28 S.W. First #103, Portland, OR 97204. (503) 228-4484.

BEAUTIFUL, CLEAN FLEECES FROM HAPPY SHEEP. Coated Rambouillet, Corriedale, Romney, Border Leicester. Discounts for whole fleece. Samples/information: $1 SASE to **Moonsshadow Farm,** 11252 Kekke Road, Chisholm, MN 55719.

BEAUTIFUL FLEECES TO SPIN: Scottish Blackface/Coopworth crosses. Silver, champagne, black, beiges. Lustrous and lofty. For sample information, send $1 SASE. Individual fleeces $4, approximately 6 lbs. Also select breeding stock for sale. **Mary's Delight Farm,** 17429 Harbaugh Valley Rd., Sabillasville, MD 21780.

Minnesota Fibers

Pat Anderson, Meadow Oaks Farm
4145 200th St E., Prior Lake, MN 55372
Crossbreds: Columbia, B. Liecesters. White & natural colors. Wool batts, mattress pads, pelt, (natrl. & clrd.).

Pat Benson, Riverview Farm B & B
RR 2 Box 155, Cokato, MN 55321
Romney, Dorset, Romney/Targhee. Spinning and knitting workshops. Brochure or wool samples, SASE. (612) 286-5933

Carmen Evans
5810 22nd St SW, Willmar, MN 56201
Taghee & Targhee Crosses. White & natural colors.

* Romney & Cormo Fleeces
* Kid Mohair-natural & white
* Natural & Dyed Roving & Batts
* Silk, Alpaca, Camel, Cashmere
* Schacht & Louet Equipment
* Natural Colored & Dyed Yarns

Fox Hollow Farm and Fiber
30781 Fox Hollow Road
Eugene, Oregon 97405
(503) 343-6596

Texas Fibers
Fine fibers from Texas and other nice places

Closing Out Exotics
Limited quantities of alpaca, angora, camel down and silk fibers and yarns

Offering Texas' Finest
Rambouillet and mohair top wool, mohair, cotton yarns

Send $3 for samples and prices to
1902 Lawyer, College Station, TX 77840

BEAUTIFUL ROVING $7/LB. White, many shades of natural colors. Romney, mohair, Lincoln and blends. Lincoln silver fleeces $3/lb. LSASE. **Pintler Sheepcamp,** 530 Faucher, Moxee, WA 98936. (509) 453-0183.

BLISS MERINO SHEEP now has black, white, & spotted covered Merino fleece. Also covered colored Lincoln fleece. Samples are $2 plus #10 SASE (2 stamps) to **Bliss Merino Sheep,** 4714 Glade Rd., Loveland, CO 80538. (303) 667-0208, evenings.

BORDER LEICESTER: 1992, Very clean. Soft, pale-medium gray lamb fleeces, small quantities, excellent for dyeing. Samples, 4 stamps: **Wool Shed,** 5161 NE 5th, Redmond, OR 97756. (503) 548-2368.

CASCADE CVM now has Rainbow fleeces available in soft, wonderful, fine roving. We still have our popular clean fleece—both raw & washed. All colors, moorit & white. Visa/MasterCard accepted. Box 630, Carnation, WA 98014. (206) 333-4934 (let ring).

CASCADE SHEEP & WOOL CO. has outstanding roving and quality fleeces available for handspinning from our select flock of natural colored sheep. Samples $2. R.R. 1, Box 60-SO, Rochester, IL 62563. (217) 498-7522.

CLEAN COVERED WYOMING FLEECES. Corriedale, Cotswold, Rambouillet and crosses. White and colored. Coarse to fine. Samples $2. **Wyoming Equality Fiber Works,** Box 373, Upton, WY 82730. (307) 468-2702.

Corriedale Wool
Since 1942. Strong, medium, white or colored fleeces. $2.50/lb. F.O.B.
SASE for sample.
Wooly Acre Farm
R.R. 2, Royal Center, IN 46978

Dyed Wool Batts
for spinning or felting
High luster domestic fleeces
solids, heathers, pastels, and rainbow batts.
Color Chart $5.00
Clear Water Dye Co.
2661 California St. #7
San Francisco, CA 94115 • (415) 292-7154

Wool O' My Loom Yarns
ENJOY KNITTING WITH NATURAL FIBERS!
Yarns: Drop Spindle, Brown Sheep, Sajama, Brunswick, Lane Borgosesia, & many more.
Accessories: Clover, Brittany and Addi needles, Wool Fat Soap, Straker patterns, & HC books.
Catalog with yarn samples $3.00 with $2.00 refundable.
623 No. Homerest Ave.
West Covina, CA 91791
MC/Visa (818) 967 - 6109

COOPWORTH AND ROMNEY premium lustrous fleeces, white and colored from covered, imported sheep. Individual fleeces $4–6/lb.; bulk (100+lb) $2.50/lb. Also select breeding stock for sale. Samples/info: $1 SASE to **Silver Creek Lambscapes,** 6731 Torvend Road NE, Silverton, OR 97381. (503) 873-6447.

COOPWORTH FLEECES, skirted, clean, white and colored wool. Send SASE for wool samples and prices. **Special Animals,** M. L. Hayworth, 146 Metz Rd., Sheridan, WY 82801.

CORRIEDALE FLEECE from spinner's flock. White, wellskirted. $2.50/lb, shipping extra. White, double, twist worsted weight, homespun yarn from our flock. 4-oz skein, $4 postpaid. Samples: SASE, **Nipmuc Farm,** 417 Carpenter Road, Hope, RI 02831.

COTSWOLD FLEECES & OTHER BREEDS, white and natural colored, in the grease or washed and picked and roving. Send $3 for samples. **Also** registered Cotswold sheep for sale. Friendly. Wethers & breeding stock. SASE to **Mountain Shadow Ranch,** 2760 Lantis Ln., Placerville, CA 95667. (916) 642-2530.

EXOTIC FIBER BLENDS! Great blends, beautiful colors. $3 for spinnable samples. Rainbow-dyed silk caps, $8/oz; Rainbow-dyed cotton sliver $3/oz. **Bonkers,** PO Box 442099, Lawrence, KS 66044.

EXOTIC SPINNING FIBERS. Alpaca, camel, cashmere, cashgora, llama, mohair, silk, tops, rovings, and sliver. Price list: send a #10 (large) SASE (+.55). **Custom Handweaving,** PO Box 477, Dept. S, Redondo Beach, CA 90277-0477.

FIBRES: MOHAIR, WOOL AND SILK rovings dyed; Lendrum spinning wheels; drum carders; LUVOTEX dyes; yarns. **Sun Bench Fibres,** 45706 Higginson Rd., Sardis, BC, Canada V2R 2A7. (604) 858-6276.

NEW ZEALAND WOOLS
Well-grown, clean (greasy) suitable for all handcrafts. Pricing in $US/lb (P&P included).
White/Coloured Fleeces $5.50;
Rovings $6.50; Working sample packs $15.00; Samples $1.
JANET PEEL
Exporter of Quality Natural Coloured Wools
Raes Junction, R.D. Dunedin, New Zealand

MERINOS by Burke

Fleeces $5.00 lb/Lambs Wool $7.00 lb
Skeins Available

Our sheep are from artificial insemination, using world-class Australian semen to produce fine micron wool with a longer staple and higher yield.

S/H included for orders over $30.00
$3.00 S/H on orders under $30.00

Gayla Burke 801-268-4979
4521 S. 785 E. Murray, UT 84107

FINE, SOFT, WHITE CORRIEDALE FLEECE. Whole fleece, wellskirted, $2.75/lb. Nice Suffolk fleeces also available, $1/lb. Samples available. Send SASE to Stephanie Wilson, **Sunrise Ranch,** 5569 N. County Rd. 29, Loveland, CO 80538. (303) 679-4200.

FINNSHEEP & FINN CROSSBRED: Supersoft white, black and moorit fleeces. Send SAE and $2 for samples and prices. **Bell Couleur Farm,** 109 Haut Des Terres Noires, Vercheres, Quebec, Canada J0L 2R0.

FLEECE: LOVELY NATURAL-COLORED fleeces from spinner's flock, $3/lb. Whites, grays, blacks, and browns. Send SASE for samples. **Georgia Wolterbeek,** Fairmount Farm, Rindge, NH 03461.

GLORIOUS 50/50 TUSSAH SILK/MERINO WOOL spinning laps $14/lb postpaid! **Forestheart Studio,** 21 S. Carroll St., Frederick, MD 21701. (301) 695-4815. Sample SASE. Quantity discounts.

GRANITE CREEK FARM—Rambouillet/Corriedale fleeces by the pound, white or colored. Carded batts/natural or dyed. Spinning and knitting supplies. Samples and price list $2. **Marta Ljungkull,** 642 27th Ave., Cumberland, WI 54829. (715) 822-8766.

JACOB FLEECES, clean, wellskirted, ideal for handspinning. Send SASE for free sample and price list. **Craft's at Bluffton,** Rt. 3, Box 142, Decorah, IA 52101. (319) 735-5533.

JOIN THE FUN. Join the *Spinning Fiber of the Month Club.* Free samples, no obligation. For information, SASE or call (800) 292-2184. **The Weaver's Collection,** 159 Boisdore Ave., Pass Christian, MS 39571.

KARAKUL/ROMNEY FLEECES AND ROVING, exceptional quality. Send $1 and SASE for samples. **S & R Sheep Connection,** 1905 N. 193 Ave., Buckeye, AZ 85326. (602) 853-0437.

KRAUSE SHOW LINCOLNS. Clean, soft, lustrous, white and colored fleeces from champion animals. Spinner skirted. $2 and $3/lb. plus UPS. $2 samples—specify. **Jeanette Krause,** 3266 Klam, Columbiaville, MI 48421. (313) 793-7472.

MERINO, BORDER LEICESTER, SILVER FINN/LINCOLN fleeces sold by the pound. Skirted, lustrous, immaculate! 3 stamps for samples. **Woolery,** Genoa, NY 13071. (315) 497-1542.

METALLIC FIBERS—jazz up your handspun, soft, easy to blend. Eight-color assortment, 1/2 oz each, (includes blue and green flash, silver, gold, copper) for $25.50 ppd. Sample card (10 colors): $1.50. **Straw Into Gold,** 3006 San Pablo, Berkeley, CA 94702.

MOHAIR, HAND CLEANED AND COMBED, 5–7" fine, young adult locks. Great price! $7/lb. Samples or orders: **Sandcastle Creations-SO,** 126 South East First, Newport, OR 97365. (503) 265-2499.

MONTADALE WOOL raw and processed. Also wool roving & large batts in grey, charcoal, white. Samples: send $1 plus SASE to **Maxine Sidle,** 7321 Pasco-Montra Rd., Sidney, OH 45365. (513) 492-1565.

MUSK OX QIVIUT—homegrown, handcombed fiber with minimal guard hair. Sold raw, dehaired, or spun two-ply, 150 yds/oz. Send $3 and legal SASE for samples and brochure to **The Musk Ox Company,** Dept. S, 633 Fish Hatchery Rd., Hamilton, MT 59840.

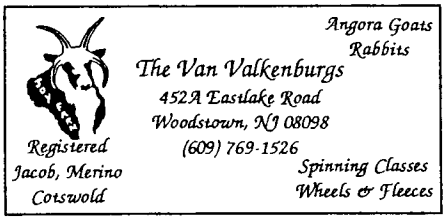
NATURAL COLORED MOHAIR in black, silver, fawn and white. Fleeces are wellskirted and clean. Mohair and mohair blend yarns also available. Send SASE for sample. **Cascade Angoras,** Lori Blumhagen, 7306 238th Ave., Redmond, WA 98053. (206) 868-8760.

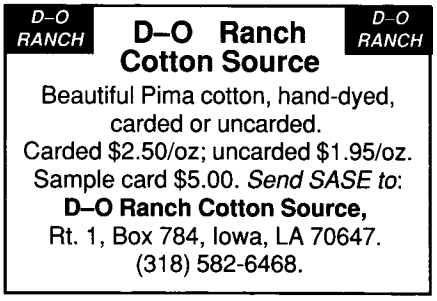
NATURAL COLORED MOHAIR. White mohair, all grades. Colored wool—some morrit. Long SASE for samples. **Kai Ranch,** Lisa and Randy Shell, Rt. 1, Box 293-C, Lexington, TX 78947. Phone (512) 273-2709.

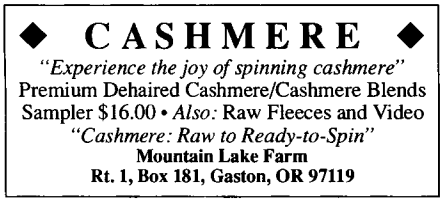
QUALITY MILL-END COTTON YARNS. Great selection of luxurious ready-to-spin fibers. Mail-order catalog $1; fiber samples $3; mill-end samples $1. **Curtis Fibers,** HC01, Box 15, Ritzville, WA 99169.

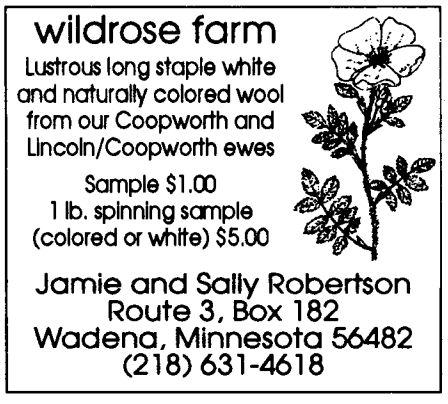
RAMBOUILLET, COLUMBIA, AND COOPWORTH FLEECES. Heavily skirted, white and natural colors. **Red Hills Ranch,** Box 583, Buffalo, WY 82834. (307) 758-4437.

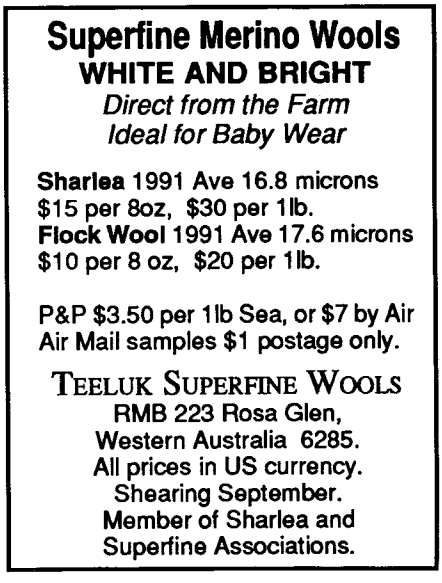
ROMNEY AND BORDER LEICESTER CROSSBRED fleeces. Variety of colors and textures. Also Polypay and French Angora. $2 for samples; please specify wool types. **Gentle Earth Farm,** 29BB, Baldwin, WI 54002.











ROVINGS, RAINBOW DYED AND NATURAL. Mohair rovings, kid and adult, rainbow dyed and natural. Blended batts. Samples $5. **Creations by Teressa,** PO Box 474, Conifer, CO 80433.

SALE! TOP QUALITY white combed merino top, reg. $20/lb, now $14. Tussah silk top, reg. $4/oz, now $2.50. Bombyx silk top, reg. $5/oz, now $3.50. Please include 10% for postage, excess will be refunded. VISA/MC. **Briar Patch Angoras,** 1100 SW Harper Road, Port Orchard, WA 98366.

SELECT FLEECES OF BREEDS of British wool sheep not found in North America are being offered for sale by **Wind Dancer Farm.** For samples and more information, please send $2 to PO Box 1812, Guelph, ON, Canada N1H 7A1. (519) 767-2453.

SHETLAND FLEECE. Soft and subtle shades for naturally heathered yarns plus solids for contrast. Raw and Carded. Also kid mohair and English Angora wool. SASE for price list. **Sandhill Shetlands,** PO Box 64, Rumely, MI 49826.

SINCE 1969 SUPPLYING TOP QUALITY white and dark Romney fleece. Raised, selected, and skirted by a professional spinner. $3/lb plus postage. Send SASE for samples. **Hungry Hill Homespun,** 39918 N. Ruby Rd., Scio, OR 97374.

New Zealand Fleeces

Beautiful, clean, heavily skirted, top quality spinning fleeces, White and Coloured.
Romney 6lb pack $30 **Merino 6lb pack $40**
Halfbred 6lb pack $35 **Samples $2**
Inclusive Postage, Check, Visa, Mastercard
STUART ALBREY, 27 PRINCES ST., WAIMATE N.Z.
Farmstay guests welcome.

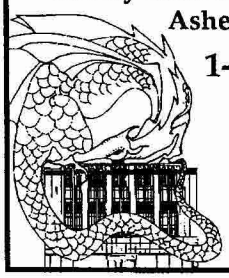
Pajama alpaca yarns
ALPACA TOP
high quality, great prices
1-800-736-0949

EARTH GUILD

Tools • Materials • Books for Handcrafts

WEAVING • SPINNING • YARNS
KNITTING & CROCHET
DYEING & SURFACE DESIGN
BASKETRY & CANING • BEADS
POTTERY HAND TOOLS
WOODCARVING • CANDLEMAKING

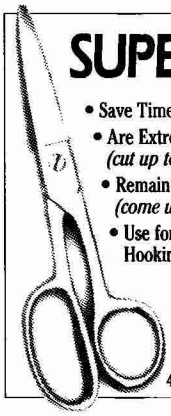
33 Haywood Street • Dept SO
Asheville NC 28801



1-800-327-8448
MON - SAT
10 AM - 6 PM
EASTERN TIME

MAIL ORDER CATALOG

SUPER SCISSORS



- Save Time and Money
- Are Extremely Sharp *(cut up to 150 layers of fabric)*
- Remain Sharp for a Long Time *(come with sharpening stone)*
- Use for Quilting, Rag Weaving, Braiding, Hooking, Knitting, Baskets

$30 includes tax & shipping

Send check
Johanna Erickson, Fiber Artist
48 Chester Street, Watertown, MA 02172

Trim Yourself in Silk

Treenway Crafts Ltd.

Samples & Price List $5.
Silk - Wool - Mohair Loop - Merino

725 Caledonia Ave.
Victoria B.C.
Canada V8T 1E4
(604) 383-1661

COLOR TRENDS

Book I $67 US funds ppd
Back issue packet $98 US funds ppd

COLOR TRENDS
8037 9th NW
Seattle, WA 98117
(206)789-1065

SPIN, SPIN, SPIN our beautiful fleeces from Texas sheep, many colors and breeds. Delaine Merino to Navajo-Churro, heavily skirted. For large sample package, send $2 to **El Rancho Puerta Grande,** PO Box 721, Camp Wood, TX 78833.

SPINNER'S TRIAL PACK: Fine black, wooly white, Karakul; $3/pack w/shipping. Spin with the Gods. **Rick Black Sheep Station,** 860 Maple Grove Rd., Sunnyside, WA 98944.

SQUEAKY-CLEAN MOHAIR! Kid, yearling, adult. Quality product. Registered Angora goats. Sample send SASE. **Billy's Goats,** 39911 NE 130 Ave., Amboy, WA 98601.

SUMMER SALE! Save on wool & exotic blends. $3 for catalog, sale flyer, and samples. **Oregon Homestead Fibers,** 105 Cooper, Philomath, OR 97370. (503) 929-2465.

SUPER SOFT. WASTE-FREE SPINNING FIBERS. Angora—professionally carded $4-#1 for blending $2.50-#2 for blending $1.50-Pastel angora/Merino—Solid color Merino—Rainbow color kid mohair/Merino. I spin miles of these rovings—you will like them, too. Write for list. Credit cards accepted. **Nemitz Acre,** R.R. 1172, Great Falls, MT 59401. (406) 965-3895.

TARGHEE FLEECE . . . white, soft, medium/fine, tightly crimped. Well skirted $3/lb. postpaid. Send SASE for free sample. **Estrella Wool Co.,** Box 4313 Pleasant Rd., San Miguel, CA 93451. (805) 467-3803.

THUNDER MTN. WOOL. Quality wool products, Lincoln and Romney fleece; roving or batts, natural and dyed colors, exotic blends, picking and carding. Samples $2. 193 Goodreau Ln., Glide, OR 97443. (503) 496-3822.

VERY CLEAN NATURALLY colored fleeces. **Maple Lawn Farm,** Black St. Road, Scipio Center, NY 13147.

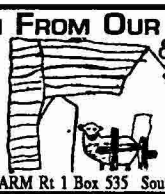
VERY CLEAN RAMBOUILLET FINE WOOLS in black, gray and white. Fleeces, rovings, and exotic blends. Send $.39 long SASE **Mary Gephart,** N4770 Jones Rd., Columbus, WI 53925. (414) 623-4018.

WOOL MILL ENDS, 2 and 3 ply. Send SASE for current samples. $5/lb + shipping. Louët products also available. **Eileen Van Sickle,** 12918 Wolf Rd., Grass Valley, CA 95949. (916) 268-1271.

WOOL, MOHAIR, ANGORA, PLUS exceptional handspun yarns, roving, and raw fleece. Take advantage of superb textures and colors from numerous spinners' covered flocks. **Round Valley Fiber Collective,** PO Box 97, Covelo, CA 95428.

YARN BARN IS A COMPLETE FIBER STORE. To serve your needs in spinning, dyeing, knitting, and weaving. We stock over 600 titles of textiles books! For a catalog, send $1 to **Yarn Barn,** 918 Massachusetts, Lawrence, KS 66044.

YARN FROM OUR FARM
MOHAIR & MERINO WOOL
Custom Spun in a Variety of Hand Dyed Colors
$2. for complete sample packet



STONELEDGE FARM Rt 1 Box 535 South Cairo, NY 12482

INSTRUCTION

GREAT DIVIDE WEAVING SCHOOL. The perfect study/vacation getaway. Learn rug, tapestry weaving. Mountain retreat. Intensive. Fun. Brochure: Box W-11, Divide, CO 80814-9018. (719) 687-3249.

HILLCREEK FIBER STUDIO. Workshops in spinning and natural dyeing, plus multi-harness, triangular frame loom, and Navajo weaving. Weekend and week-long. Bed and breakfast. Workshop brochure: send SASE to **HFS,** 7001 Hillcreek Rd. SO, Columbia, MO 65203. (314) 874-2233.

RIVER FARM WEEKENDS AND Fiber Saturdays. Year round on the banks of the Shenandoah in the Valley of Virginia. Beginner, Intermediate, and Advanced Handspinning, Priscilla Blosser-Rainey. Overshot Weaving, Barbara Miller. Indigo/Cochineal Dyeing, Maretta Crider. Beginning Weaving, Maretta Crider. River Farm House bed and breakfast. Catalog $1. **The River Farm,** Rt. 1, Box 401, Timberville, VA 22853. (800) USA-WOOL.

SPRINGWATER FIBER WORKSHOP—Exciting workshops and quarterly classes in fiber-related areas: weaving, tapestry, dyeing, surface design, basketry, spinning, and many more. Retail store with many unusual yarns and supplies. Send SASE for newsletter and class descriptions to **Springwater Fiber Workshop,** 1125 Duke Street, Alexandria, VA22314. Come meet us at Convergence '92!

■ **WORKSHOPS, Sept. 21-27, 1992** ■

. . on Magnificent Whidbey Island . .

FIBER FORUM VI

- **Mabel Ross**
- **Randall Darwall**
- **Sharon Alderman**
- **Madelyn van der Hoogt**
- **Sheila O'Hara**
- **Karen Selk**
- **Heather Winslow**
- **MORE!**

for free Information: COUPEVILLE ARTS CENTER
P. O. Box 171 SO, Coupeville, WA 98239
(206) 678-3396

Black Sheep News-Letter

Published quarterly for growers, spinners and textile artists interested in black sheep, wool and other animal fibers.

$12 per year
sample copy $3.00

Black Sheep Newsletter
25455 NW Dixie Mtn Rd
Scappoose, OR 97056

Books for people with warped minds.

Learn more about warp and weft with our worthwhile books for weavers, knitters, and ethnic textile lovers.

DOS TEJEDORAS FIBER ARTS PUBLICATIONS
P.O. Box SO-14238, Saint Paul, Minnesota 55114
1-800-545-8413. *Send $1.50 for a catalog of publications.*

LOWELL WORSTED MILLS

Natural colored natural fiber yarns on dyeskeins and cones for dyers- wools, mohairs (our specialty), and more - samples $7.50. Natural fiber tops, pencil rovings, flyaway fibers from our mill for handspinners and felters at great prices - samples $5.00. Direct from the mill to you. Wholesale inquiries only. Send copy of resale certificate and sample requests on business letterhead to LWM, Dept. SO92, 12 Perkins St., Lowell MA 01854. NO ORDERS FILLED w/o RESALE CERTIFICATE.

BOOKS BOOKS BOOKS BOOKS BOOKS

The Unicorn Textile Book Catalog contains over 500 new, old & unusual books on weaving, spinning, dyeing & knitting. Send $1 for p&h to:
UNICORN BOOKS
1338 Ross St., Petaluma, CA
94954-6502

BOOKS BOOKS BOOKS BOOKS BOOKS

MIDWEST WEAVERS ASSOCIATION, INC.
11701 LAURELVIEW DR.
CINCINNATI OH 45249

Lifetime membership dues $2.00. Send a SASE for information about the Swatch Collections.

To keep member list accurate, notify MWA if did not receive notice of our MWA '91 Conference. The MWA '93 Conference will be held in Cedar Falls, Iowa on June 3-6, 1993.

NWRSA

NORTHWEST REGIONAL SPINNER'S ASSOCIATION INC.

Invites you to become a vital link in a Spinners Communication Network to promote awareness of the art and craft of handspinning and to give spinners the opportunity to share, learn educate, study, compete, cooperate.

Ten Newsletters a Year.

For more information send SASE to:
NWRSA
9914 - 226th Place S.W.
Edmonds, WA 98020

LITERATURE

ANIMALS EXOTIC AND SMALL 68+ page magazine for the exotic and non exotic animal enthusiast. Subscriptions: $21/year U.S., $36/year foreign. U.S. funds only. Sample: $3. **Animals Exotic and Small,** 1320 Mountain Avenue, Norco, CA 91760. (714) 371-4307. Fax (714) 371-4779.

AVAILABLE FROM FIBERWORKS PUBLICATIONS—*Nature's Dyepot: Resource Guide for Spinners, Weavers & Dyers* by Bobbi McRae. Complete catalog $2 to **Fiberworks,** Box 49770-S, Austin, TX 78765.

CRAFTBOOKS, a free catalog dedicated to the best books on craft. Books craftworkers, educators and collectors need. From **Chester Book Co.,** Chester, CT. 06412. (800) 858-8515.

FREE SAMPLE COPY of full-colour, 60-page, quality textile magazine: *Textile Fibre Forum* from Australia. Just write to **TAFTA,** PO Box 192, Mittagong, NSW 2575, Australia (send US $3 to have magazine sent airmail). You'll love it. No obligation.

Spinning Teacher Directories

Low-cost listings of U.S. and Canadian teachers, their lectures and workshops. Send for our **Directory Order Form.** Teachers interested in being listed can send for a **Teacher Registration Form.** SASE to: **The Textile Detective,** P.O. Box 422, Andover, MA 01810.

BESTSELLERS BY BETTE HOCHBERG

BOOKS FOR SPINNERS WEAVERS & KNITTERS

HANDSPINNER'S HANDBOOK. Practical directions for spinning on the wheel. $8.95

FIBRE FACTS. Guide to fibres & yarns. Choosing, using, finishing, care. $8.95

SPIN SPAN SPUN. Lively collection of spinning & weaving myths, legends. $8.95

HANDSPINDLES. Reviews history, use of spindles. Instructions for spinning with all ethnic styles. $8.95

REPRINTS OF 16 TEXTILE ARTICLES from U.S., overseas magazines. $4.95

At local stores, or mail order from: STRAW INTO GOLD, 3006 San Pablo, Berkeley, CA 94702
(Add $1 shipping one book, $1.50 for two)

Northern California Angora Guild
announces the publication of the
New and Revised
Angora Handbook

Send $14.50 + $1.50 shipping/handling per book (make check payable to NCAG) to Sandy Kelly, 25275 LaLoma Dr., Los Altos Hills, CA 94022. (California residents please add $1.20 sales tax.) *Quantity discount available.*

SUPPLIES

A KNIT LACE COLLAR KIT: Tussah silk to spin ($11.50), Tussah silk handspun ($17.50), Bombyx silk to spin ($13.50), Bombyx silk handspun ($19.50), unspun silk *bell* ($9.50), hand-painted silk to spin ($15.00), hand-painted silk handspun ($21.00), all postpaid. More. Brochure $1 + SASE. **Royale Hare,** 946-S Lodi, Santa Rosa, CA 95401. (707) 579-2344. VISA/MC.

HANDSPUN YARNS & FIBERS. Mitzi and Wee Peggy accessories only—spinning wheels out of production! Plucked angora from English x German rabbits, space-dyed angora and kid mohair, silk blends with camel down, cashmere, and cotton. Newly arrived Bombyx top. Long SASE for price list to: **Nancy Finn,** 2220 Hilltop Dr., Willits, CA 95490.

PERLINOX KNITTING NEEDLES—Sizes 0–10½. 8" double-points $3; 16" circular $4; 24" circular $4.50; Calico cases $12; ppd. VISA/MC or check. **The Sweater Workshop,** Box Five, Hingham, MA 02043.

TYNSELL HANDSPINNERS. Traditional wool combs, hackles, fine fibres, unusual fleeces, spinning requisites. Catalogue $3. Wool hackle and fibre samples $40. (credit card accepted). 53 Cross Green Road, Dalton, Huddersfield, HD5 9XX, England.

WOOLEN TREASURES SUMMER SALE—*All* books and magazines 15% off. *All* raw fibers 20% off. **Sale ends September 1, 1992.** Check out the ad in the Summer 1992 **Spin·Off,** page 48, for address and phone number.

The Farmer's Wife
P.O. Box 664, Edgemont, PA 19028
~The 1992 Annual Catalog~
An entire line of Spinning, Weaving, Dyeing and Instructional Goods chosen with museum folk and crafters in mind, all at substantial discounts.
Send $3 for catalog and book list of 1000+ titles, receive coupon for $3 off first order of $15 plus.
Send long SASE for latest sale flyer.

KNOTS & TREADLES
103 E. Pittsburgh Street * Delmont, PA 15626
(412)468-4265 * CATALOG 3 - Stamps
SHEEP on Everything! Rubber Stamps, Masks, Thimbles, T-Shirts, Socks, Children's Books...ETC.!
SHEEP Print Fabrics (Swatches $5)
Large Assortment SHEEP Stickers - $3
Weaving & Spinning * Supplies & Equipment
VHS Video Rental Library via UPS! * Dyes

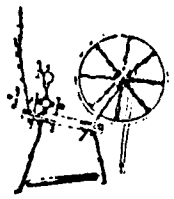
GREAT BUYS!
Everything For The Spinner.
Special prices on all wheels in stock. Clover Knitting Needles • Washed Fleeces • Quilt Batts.
Inquires:
B&D HOBBIES
PO Box 4
Gladstone, OR 97027
(503) 656-3149

SPINNING WHEELS - LOOMS - FIBERS
YARNS - BOOKS - DYES - BUNNIES
Open by appt.
Mail/phone order
7am-10pm Mon-Sat
Catalog $2.00
Detta's Spindle
Detta Juusola, 2592L Geggen-Tina Rd.
Maple Plain, MN 55359 (612)479-2886 VISA/MC

SPINNING, WEAVING, KNITTING Classes & Supplies
Dealer for: Lendrum, Louët, Country Craftsman, Schacht and Ashford wheels.
Harrisville, Schacht and Leclerc looms.
Send $3.50 for a complete catalog of over 500 yarn samples and equipment list.
FIBER LOFT (Bare Hill Studios), Rt. 111, P.O. Building, P.O. Box 327, Harvard, MA 01451. (508) 456-8669.

SIMPLE herbal RICHES recipes
MAKING SEASONED OILS FOR DEAR FRIENDS both books handwritten & illustrated in a warm country style
and MORE SIMPLE RICHES: MAKING SEASONED VINEGARS FOR DEAR FRIENDS $4.50 plus $1.50 s/h each. $2.50 for newsletter.
SOPHIE'S FARM
p o box 1077S, Harpers Ferry WV 25425

SALLY'S SHOP
Source for All Your Spinning and Weaving Supplies
Custom Dyed & Blended Rovings
Catalog $2.00 ■ Fiber Samples on Request
Visit our Shop or Mail Order
Phone Orders Welcome! 10 am - 5:30 pm VISA/MC
139 College St., Wadsworth, OH 44281 ■ (216) 334-1996

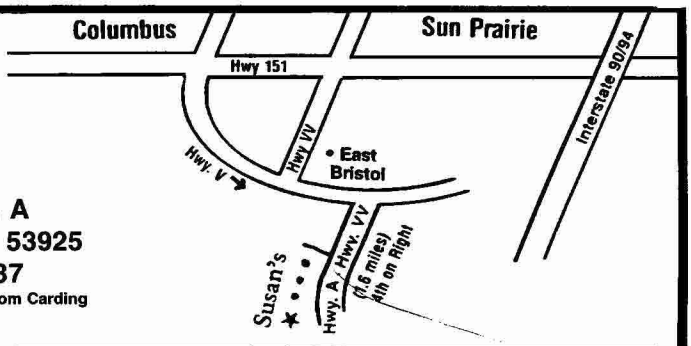
Summer Spinner's Special:
Createx Liquid Dyes (non-toxic)
$5.00 for 4 ozs. • 22 colors

Spinning Wheel Stamp $5.50
Louët, Schacht
Meck
Clemes & Clemes
Country Craftsmen
Reeves
all prices include shipping
Spinner's Hill
RD #1, Box 118
Brackett Lake Road
Bainbridge, NY 13733
607/843-6267

ADVERTISER'S INDEX

SUSAN'S FIBER SHOP

- carding
- spinning
- weave

N 250 HWY. A
COLUMBUS, WI 53925
414-623-4237
Formerly McFarland's Custom Carding



Books: • Spinning • Weavings • Sheep • Knitting *(Send for our complete list)*

Shipping & Handling
$1 to $48-$3.00
$49 to $125-$5.00
$126 & Over-$8.00

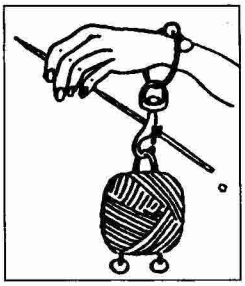
Wisconsin Residents Add 5½ % Canada Add $5.00 per order

Call or write today!

Romney Sheep
Wheels: • Schacht • Louet • Country Craftsman
Looms: • Norwood Looms

Carding: Batts or Roving your wool returned $4.50 washed– picked card finished wt. $3.50 picked & carded–$2.25 picked

2 Row Viking $79



Yarn Keeper Bracelet $12.95

Country Classic Dyes $5/jar

Dye List:

Fluor Yellow	Blue Bonnet
Buttercup	Cornflower
Maize	Blueberry
Cantelope	Slate Blue
Pumpkin	Avocado
Apricot	Blue Spruce
Very Hot Pink	Cherry
Magenta	Mountain Aqua
Strawberry	China Jade
Bermuda Sand	Sugar Plum
Wild Iris	Spring Violet
Desert Rose	Quicksilver
Chestnut	Raven

Join Susan's in the 90's for your "Fiber Extravaganza"

A Few Retreat Spaces May Be Available

SOAR '92

Join the Celebration! Spin·Off Autumn Retreat and Workshops

October 4–11, 1992
Grand Targhee, Wyoming

RETREAT
October 8–11

Rita Buchanan: Spinning on the Go
Jane Fournier: Flax–Straw into Gold
Jody Herriott: Angora–Spin that Fuzz
Judith MacKenzie: Understanding Your Wheel
Linda MacMillan: Marketing Your Ideas
Deb Menz: ABCs of Color
Mabel Ross: Fancy Yarns
Margaret Stove: Lace Knitting
Lynn Teague: Prehistoric Southwestern Spinning
Michele Wipplinger: Glorious Colors Naturally

*TUITION: $225

WORKSHOPS
October 4–7

Judith MacKenzie: Comprehensive Spinning Review
Jane Fournier: What To Do with That Fleece
Deb Menz: ABCs of Color
Mabel Ross: Fancy Yarns
Margaret Stove: Spinning & Knitting for Lace
Michele Wipplinger: Glorious Colors Naturally

*TUITION: $175 plus supplies

GRAND TARGHEE

Join us for a celebration of spinning in Wyoming, where there are more sheep than people, in the mountains where the Great Spirit resides. Grand Targhee is in the heart of the Tetons, south of Yellowstone National Park. Airport: Jackson. Room and board: $36/person/night.

*TUITION: for Workshop and Retreat: $370

REGISTRATION

The Workshops are full, but *a few spaces for the Retreat may still be available. Call Interweave Press, (303) 669-7672, for details.* Or write for more information and a registration packet: SOAR '92, Interweave Press, 201 East Fourth St., Loveland, CO 80537. Registrations will be confirmed on a first-come, space available basis.

MC/VISA accepted.

Photo credits: Tetons, Clark T. Hegear; Grand Targhee Resort, Grand Targhee Resort