SPIN·OFF

VOLUME III • 1979

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SPIN·OFF

VOLUME THREE, 1979

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ADVERTISER INDEX

IN THE SUPPLIERS DIRECTORY

BEHIND THE WHEEL . . .

Recently my husband was given a copy of an old book which describes his family from the time of the Norman conquest of Britain until late in the 19th century after migration to America. What fun it has been to read of the various escapades and activities of a family who came from England to America early in the days of colonization. They didn't quite make it on the Mayflower, but they weren't far behind.

Some of the most interesting items in this family history are the wills, and the book's author quoted many of these old documents. No longer can my husband laughingly call *me* the spinster of the family, for his ancestors often listed among their cherished heirlooms the "wheel of walnut" or the "tall wheel". These spinning wheels were usually passed to the closest relatives and were listed alongside the land holdings and agricultural implements necessary for survival.

Modern spinners often forget (or at least it's usually not foremost in their thoughts) that handspinning was once a necessary and marketable skill. Although there are contemporary handspinners who financially support themselves with their handspun yarns or who wear exclusively handspun garments, they are in the minority when compared to the ever greater numbers of spinners who spin for pleasure rather than necessity.

No matter how or why you spin, we hope you will enjoy reading about people who spin out of necessity or as part of the work force in Beverly Gordon's "New England Spinsters" and in "The Handspinning Project" by Carolyn Keefe. Rita Dayton's "The Amazing Basques and Their Sheep" and "Arans: A Saga in Wool" by Lee-Lee Schlegel tell about other people involved in historic and necessary aspects of wool, while Ann Foster describes uses for vine fibers and traditional processing in "Kudzu: The Common Vine with 1001 Fibers".

In addition, SPIN·OFF will better prepare you to card with Bette Hochberg's article on "Carders: Hand or Drum"—or you can skip carding and try "Kiwicraft" (by Beverley Horne) or Brenda Ekstrom's method for "Spinning in the Grease—with minimal preparation". And, there are some projects outlined—growing flax in your garden, making an electric spinner out of your treadle wheel's flyer-bobbin assembly, spinning fancy yarns, knitting creatively, and learning to spin on the great wheel.

Whether we have spinsters and old wheels in the family or are at work on a first generation drop spindle, we all share the heritage of an ancient and necessary skill—handspinning. As spinners, we have many ideas and skills to share, and that's what SPIN·OFF is all about. We like hearing from you, and wish you good spinning.

Anne Bliss
Coordinating Editor

LOOK FOR:

The SPIN·OFF WORLD BOOK OF RECORDS contest results and new contest on page 14.

Developments in the establishment of criteria for judging handspun yarn on page 8.

As a result of Eliza Leadbeater's article on flax in SPIN·OFF '78, we received a letter from elementary school student Annette MacRae of DeRuyter, New York about raising flax. She has built herself a loom and spins her own wool and flax.

RAISING FLAX IN YOUR GARDEN
by Annette MacRae

On May 15, 1978, a small plot of land measuring 108' x 2' was prepared for planting flax. Taking a pound of flax seed, we broadcasted the seeds by hand. Then we took the hoe and lightly covered them with dirt. These seeds came from the Cherry Valley Guild.

Within two weeks little green plants were sprouting up all over the patch. By the first of July we started noticing buds on the plants. The plants were 9" tall at this stage. On July 12, all the plants had pretty blue flowers that opened about 9:00 a.m. and closed at noon. What a beautiful sight it was to see the blue flowers blowing in a soft breeze.

The flax seeds were planted so close together that there was no room for weeds to grow. We did hoe the outside row to keep the weeds away.

On August 15 we pulled a flax plant and found that it has six flower buds which later turn into a seed pod. The same day we measured the plant and from the tip to the root it was 2' tall.

The second week in September we harvested the flax. It was 3' tall. We took the flax and pulled it out of the ground, roots and all. It is important to pull the roots to get all of the fibers. The flax was tied into four bundles, each bundle weighing about ¾ pound. The flax was stored during the winter and processed in the summer into linen thread. Now I know what my Aunt Cathrine back in 1820 had to learn to do. I am very proud to own a piece of her handwoven linen towels and her flax spinning wheel.


Annette spins on the great wheel.

In February our school sponsored a science fair. My brother and I demonstrated "Flax . . . From Seed to Finished Product". Sean grew some flax in a pot to show what flax looked like. He explained the seed pod and broke one open to show the tiny brown seeds inside. There are between eight and 12 seeds inside one pod.

I explained how the flax was raised and harvested. SPIN·OFF '78 had excellent pictures showing the processing of flax, which I explained. I then proceeded to show how flax was put on a distaff and sat down and spun flax into linen thread.

We were overwhelmed when the judges announced us as the winners in our category. First prize was awarded, $10. It was a fun project to do because I got to show others how our ancestors used to make their own clothing. □

SECOND ANNUAL HANDCRAFTED WOOL SHOWCASE

by Ray Kirk

A wide range of techniques and new dimensions in the use of wool were typical of entries in the second annual National Handcrafted Wool Showcase in Orland, CA, June 14-17. Becoming a major showplace for wool craftsmen from across the United States and Canada to display their handiwork, the showcase is unique. All phases of wool, from its beginning on the sheep through shearing, a fleece sale, cleaning, carding, spinning and weaving into the finished product are displayed.

One tapestry caught the attention of all visitors as well as judge Hal Painter and won the Popular Vote Award. Sponsored by Interweave Press, Inc., the award was a handcrafted sterling silver ram necklace. The Popular Vote Award is a new feature of the show. It is given to the piece receiving the most votes from those who attend the exhibit. Lily Jones' work of two and a half years combined a traditional flat tapestry technique with three-dimensional extensions and a concave polished oak frame. Jones' handiwork also

Show organizer Bea Wetmore awards the Interweave pendant to Lily Jones for her prize-winning tapestry.

was judged Best of Show and was awarded the HGA Judge's Choice Award.

Juror Painter, from Chiloquin, OR, singled out *Cypress and Sun* for the excellent craftsmanship and imaginative solution to combining weaving with sculptural wood.

Created by Lily and her husband, Clyde, who live in Fort Bragg, California, it was made from wool that was handspun and colored with vegetable dyes from plants along California's Mendocino Coast. Thirty-two colors were woven throughout the 90" x 32" x 11" piece.

California and New Zealand Rambouillet and Corriedale fleece were used. She employed a double weave technique. Two panels were woven at the same time on the loom; it is one piece of fabric at each end. The branches were then cut and manipulated to certain places and sewn into place after the piece was woven. Painter said it offered "an overall fresh approach for presentation and high quality craftsmanship, as well as interest in the item itself. It offered movement and inventiveness. The piece was given some thought," he said. "I have seen nothing like it before."

Jim Brown designed the 130-piece show. Exhibits came from nine states—California, Vermont, Washington, Oregon, Idaho, New Jersey, Wyoming, Nevada and New Mexico.

Items submitted included wall hangings, tapestries, blankets, rugs, shawls, afghans, baskets, pillows, jackets, vests, shirts and bedspreads.

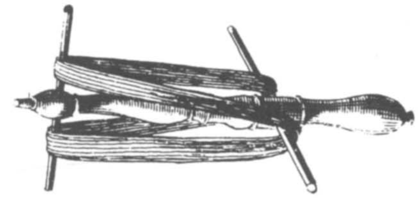
Adding a whole different dimension to the show were guided tours of the sheep barns by Glen Eidman of Willows, California, former California Sheepman of the Year, respected wool judge and sheep breeder. Eidman first demonstrated several different sheep breeds and the characteristics of the fleece of each. He explained how to handle, evaluate and buy a fleece. Wool from fine to coarse was shown and Eidman told which grade and breed fleece is best suited for which type of work.

Painter and Eidman toured the exhibition and noted the appropriateness of some pieces that used the correct sheep breed for the object—that is, fine, soft fleeces for baby clothes, neck scarves or pillows and coarser fleece for rugs or wallhangings. Painter said many spinners seemed not to be aware of the best use of different grades of wool because some yarns were overspun, and the finished piece of clothing or yardage had a hard feel and was too heavy for its purpose. Also, some entrants submitted finished clothing with the wool still in the grease—a bad practice except in certain cases such as waterproof outerwear.

A special exhibit featured wool pieces created by Beverley Horne, the author of *Fleece In Your Hands*. A spinner, weaver and handcrafter, Beverley Horne explains in the book how to use wool from various sheep and presents a project for weavers using the various breeds. Examples of 15 different sheep and ten projects described in the book were displayed at the show.

Saturday was the Spin-in. People were invited to bring their spinning wheel or apparatus and work in front of the exhibition building. Painter and Brown set up a giant 16' loom so visitors could try their hand at weaving. Eight people were able to weave at a time. The goal of the group effort was a tapestry of the wool symbol.

Work is underway already for a bigger and better wool show in 1980. For information on the next National Handcrafted Wool Showcase, write Showcase, P.O. Box 667, Orland, CA 95963. □



CRITERIA FOR JUDGING HANDSPUN YARN

by Anne Bliss

In SPIN·OFF '78 we asked for reader input about setting quality standards for handspun yarn. Since then we have received numerous letters, yarn samples, questions, and answers from all over the world. We feel that it is premature at this time for us to either suggest a set of criteria for judging handspun yarn or to establish qualifications for those spinners who wish to have their yarn judged. However, we do want to share what we have learned and to request further input. What do *you* think makes a good handspun yarn?

Perhaps the spinning group which has to date the best established set of standards for handspun yarn is the New Zealand Spinning, Weaving and Woolcrafts Society, Inc. (NZS WWS) This group looks for the following points when judging handspun yarns:

1. the quality of the fleece used;
2. does the thickness of the yarn suit the fleece type;
3. does the amount of twist suit the fleece;
4. does the amount of twist suit the resultant yarn;
5. has the yarn been washed and set;
6. has some indication of length to weight been given; and
7. has the end use of the yarn been indicated?

Additionally, the NZSWWS gives a Quality Mark which ascertains that the spinner is aware of the suitability of types of fleece for the finished article. It also judges the standard of workmanship and presentation. Spinners are required to complete projects in one or more of these categories: hand-spun yarns; handspun knitted articles; handspun crocheted articles; Kiwicraft; weaving with handspun.

The Handweavers Guild of America, Inc., is presently undertaking the development of a set of standards and projects which must be met and completed in order for its members to receive a certificate of excellence in handspinning. The format is not fully established as yet; however, publication of standards is expected in November, 1979.

In addition to these two large societies, many spinning guilds have established criteria for membership based on the spinner's ability and products. (See Erica Rowe's article on guilds, page 35).

Many of our readers responded with ideas, questions, suggestions, opinions, and methods of judging yarns. Here are just a few of their comments:

1. Should the judge watch the spinner at work? Or—does the method of spinning affect the quality of the yarn?
2. Yarns should be compared to a rigid standard to suit their purpose, i.e. amount of twist per determined length of yarn, thickness of yarn, consistency, etc. The qualities should be measureable rather than aesthetic to prevent the judge from picking a favorite rather than the yarn that meets the standards.
3. The judge should choose the yarns that look the prettiest and feel the softest.
4. The spinner should have to make something from the yarn and submit that thing with a sample of the yarn. Then the judge can tell if the yarn "works" the way it should.
5. Handspun yarns should be strong, smooth, fine and even.
6. The best yarns spun by hand have a lot of character. They don't have to be even and thin—we can buy that kind of yarn.
7. Spinners have to produce a variety of yarns, not just warp yarns or fancy yarns. A good spinner can spin whatever is desired.
8. The spinner must know to what kinds of yarn each type of fiber is suited. The spinner ought to have to submit silk, cotton, etc.—not just wool.
9. Each skein of yarn must be judged on its own merit. How can you judge cotton two-ply against singles silk?
10. Contests should be based on who can spin the most yarn the fastest.
11. You can judge the spinner, or you can judge the yarn.
12. The spinner should be able to spin on several kinds of wheels as well as a drop spindle.
13. It doesn't matter how the spinner works. The finished yarn is what is important, and it has to be suited to its intended use. The end use is what should be judged.
14. Yarns spun from "raw materials" should not be judged against those spun from prepared roving, line, etc.
15. Different fibers should be judged separately.
16. The spinner ought to demonstrate a knowledge of the history of spinning.
17. The spinner should be able to tell one fiber from another—wool, silk, alpaca, camel, etc.
18. Fancy yarns are the best thing spinners can make; they ought to win the prize.
19. Finishing (washing, setting twist, etc.) should be judged very strictly.
20. Judge on the point system in different categories. Whoever gets the most points wins.
21. Don't reduce spinning to the academic level. It would take all the fun out of it.

As you can tell, spinners have a lot of diverse ideas. It appears that some distinction should be made between the spinner and the product. What is being judged? Or, is the spinner's knowledge and skill directly reflected in the handspun yarn to the extent that a good skein of yarn indicated good technique? How does this determine the quality of the yarn and the product made from it?

We will be keeping in close contact with the NZSWWS and HGA, and with many guilds. Hopefully, the pooled expertise along with your input will enable us to eventually present a workable set of criteria which can be used for judging yarn spun by hand from a great variety of fibers by a variety of methods by spinners around the globe. We're all basically doing the same thing to achieve a good yarn; can we agree on what makes it good? What should we be assessing in jurying a skein of yarn—the spinner, the yarn only, the preparation and finishing of the fiber to yarn, the end use?

If you have any thoughts about what makes a good handspun yarn, or what a judge should look for when deciding whether or not the yarn is good, please let us hear from you. ☐

SOME SPECIAL PUBLICATIONS

During the past year or two a number of interesting books and booklets have been published about various aspects of spinning. Some of them have been self-published by the author; some have come from spinning groups; some have come from regular publishing firms. In an effort to keep current on the available publications regarding handspinning, you may want to search out these books either at your favorite supplier or by writing directly to the publisher. These are some of my favorites. —Anne Bliss

Spinning and Spinning Wheels by Eliza Leadbeater (Shire Publications, Ltd.—available from Eliza Leadbeater, Rookery Cottage, Dalefords Lane, Whitegate, Northwich, Cheshire, England for $2.00 U.S. postpaid).

This information packed little book (32 pages) will be of special interest to every spinner who owns a piece of spinning equipment. Ms. Leadbeater combines historical perspective, a knowledge of spinning, and a curatorial eye for illustrations in this handy guide to many types of wheels and accessories. This is not a "learn to spin" book, but it provides a good look at the equipment (spindles, wheels, cards and combs, wool shears, water pots, reels, niddy-noddies, and more) and gives excellent information about it.

Spin Span Spun: Fact and Folklore for Spinners by Bette Hochberg. (Available from Bette and Bernard Hochberg, 333 Wilkes Circle, Santa Cruz, CA 95060 for $4.95 plus $.75 postage).

Published in the same format as Bette's *Handspinner's Handbook and Handspindles*, this book is chock full of Bette's hints and shared tidbits of knowledge—and practical responses to needs of spinners and those who use yarns and cloth. But, the book is really a sort of anthology of little facts and fantasies about spinners and what they do (or what other people believe they do!). You'll learn about such things as ancient Egyptian wigs, what happened to French women (c. 1600) caught wearing printed cotton cloth from India, Biblical references to sheep, fairy tales, why many spinners use the "S" twist with flax—and more besides. The book is part history, part "old wives' tales", part fact, and part fancy. There are illustrations, a good bibliography, and an index. Bette and Bernard must have had a good time putting *Spin Span Spun* together, because it's certainly fun (and educational) to read.

167 International Sheep Breeds published by Janice Gnatkowski, Ancho Rt., Carrizozo, New Mexico 88301 ($10.00 plus $.50 postage)

Most of the material in this book was originally published in 1941 by The Texas Sheep and Goat Raiser Association. In addition to a short introduction on "The Origin and Early History of Sheep", the book features a black and white photograph of each of the 167 sheep breeds (from all over the world), plus discussion of the native habitat of each breed, information about its wool, meat, size, and some history of the breed or sheep in the area where it is found. W.P. Wing, Secretary of the California Wool Growers Association states that this book is "the most comprehensive survey of sheep breeds ever published at one time." If you're studying or raising sheep, interested in spinning different types of fleece, or about to embark on a trip overseas, then this book will provide interesting and historical reference material.

Fleece Directory available from the Natural Colored Wool Growers Association, Rt. 1 Box 2382, Davis, California 95616 (Write for information.) This new publication includes topics such as physical properties of wool, grades of wool with samples, variations in fleeces from breed to breed, and points to consider when selecting a fleece. The directory is intended to serve as a useful reference for both sheep breeders and handspinners for the study of wool and wool quality.

Handspinning Cotton by Olive and Harry Linder (Available for $6.25 postpaid from The Cotton Squares, 1347 East San Miguel Avenue, Phoenix, AZ 85014)

If you can already spin but need a little guidance toward a fiber other than wool, this is the book for you. Olive and Harry Linder are among the foremost spinners and teachers of spinning in the United States, and their book is practical and full of useful information and hints to make handling and spinning cotton easy and fun. There are sections about setting twist, sizing, dyeing, and a variety of uses for the cotton once it's spun.

A Pictorial Guide To American Spinning Wheels by David A. Pennington and Michael B. Taylor (Published by The Shaker Press, Sabbathday Lake, Maine; available from David Pennington, 1993 W. Liberty Road, Ann Arbor, MI 48103 for $4.50 plus $.75 postage)

Pennington and Taylor have done an excellent job of analyzing spinning wheels in America; and, just as most Americans have their "roots" in Europe, so do the American spinning wheels. Nine sections in the book cover various types of wheels (from Saxony to double flyer flax wheels to Canadian wheels and more), and there is a section on "miscellaneous" equipment necessary to preparing fiber, spinning, and finishing the yarn. The text is educational and is excellent historical material; the illustrations are many and superb.

The Handspinners Guide To Selling by Paula Simmons ($8.95 from Pacific Search Press, 222 Dexter Avenue North, Seattle, Washington 98109)

My immediate response to this newly published book was one of delight—the front cover is beautiful—and the rest of the book is equally so. For once, here's a book you can judge by its cover. Paula and Ross Simmons support themselves with handspinning, and in the book Paula shares their expertise, ideas, and experience. She discusses production and equipment, public relations, advertising and the real grit of any business—pricing, selling, accounting, taxes, and investments. The information is really that needed by any business, which is just what any handspinner selling yarn has—a business. This is a practical book with good approaches toward professionalism, and the information is surely to be valued by handspinners—whether they're selling or not—as well as by any fiber-related business owner.

Selecting Fleece For Spinning and Yarn Gauge by Eileen Marten (New Zealand Spinning, Weaving and Woolcrafts Society, Inc., Private Bag, Havelock North, New Zealand)

Although eight pages (two sheets printed both sides and stapled into a booklet) in length, this little monograph provides a very basic guide to the various breeds of sheep raised in New Zealand and their fineness grade. There is discussion of crimp, soundness, and where to purchase fleece plus a way to calculate length of yarn needed.

Fleece In Your Hands by Beverley Horne (Available from Interweave Press, 306 Washington, Loveland, CO 80537 for $6.50 postpaid)

This recent revision of the long-standing favorite of New Zealand spinners is a welcome addition to any spinner's library. The chief virtue of this book lies in its project-oriented approach to spinning. To satisfy the variety of fleece types available, Ms. Horne provides interesting projects adapted to the yarns most suitably spun from the various staple lengths, crimps, etc. which spinners encounter. There are lots of illustrations and excellent instructions.

CORRECTION:

An error was made in SPIN·OFF '78 in the photo arrangement which illustrated Eliza Leadbeater's article on Flax. The photos of "hackling" and "rippling" were interchanged. During the "rippling" process, the heads of the flax plant are pulled through a coarse comb to remove dried seed capsules. During "hackling" the fibers are slightly dampened and drawn through the teeth of the toothed hackle to comb and align the fibers.

ABOUT OUR AUTHORS

Doloria Chapin is well known in the eastern U.S. for her knowledge of spinning which she imparts to others through classes and workshops. She is an active member of the Thistledown Handspinners Guild and a spinner of any kind of yarn she desires!

New Zealand spinner **Beverley Horne** is a proponent of "design your yarn to suit the finished product". She is the author of *Fleece In Your Hands* (Interweave Press, 1979) which describes numerous uses for different types of fleece and handspun yarns. Her article in Kiwicraft will be of interest to spinners looking for an easily portable spinning method.

Ann Foster traveled on an educational grant for one and a half years throughout Japan studying its textiles and culture. She is a part of The Yurt Foundation, an educational foundation which collects traditional folk knowledge from around the world, and blending it with modern knowledge, seeks to encourage ways of living which are simpler and relevant to our ecosystem.

For further reference to kudzu please see *The Book of Kudzu* by William and Akiko Aoyagi Shurtleff, Autumn Press, 1977. Ann collaborated with the authors on the textile chapters.

Al Heustis is the manager of the Grise Ford Eskimo Cooperative, Ltd. at Grise Ford, Northwest Territories. The cooperative is located on Ellesmere Island. This is the ninth largest island in the world and boasts of 87 permanent human residents and many musk oxen. *Koonеyuk* or *quiviut* is collected from these undomesticated oxen who manage to survive the arctic winter (6 months of -30° F) as they have since the last ice age.

Carolyn Keefe apprenticed to Lee Carlin of the L.J. Carlin Co. in Boulder, Colorado as a spinner. Following her apprenticeship, Carolyn's position involved teaching the students in the Handspinning Project. Her own handspun yarns find their way into handknits, and Carolyn knits exclusively with these yarns spun only from undyed fleece in soft natural tones.

Virginia resident **Lee-Lee Schlegel** has studied in depth the Irish culture and its ties to traditional art. She is herself a creative knitter and will be conducting sessions at the Handweavers Guild of America's Convergence '80 on creative knitting. Her article on the aran knitwear of the islands off the west coast of England/Scotland which include Ireland will be of interest to historians, artists, knitters, and to spinners who feel a kinship with the spinners of the past.

German-born **Rita Dayton** calls herself a "woolgatherer". Since 1973 when she acquired her first spinning wheel, she has spun and knitted hundreds of pounds of wool. By trade she is a teacher of English, French and German at the Simi Valley, California, high school. By avocation she is a spinner, a student in sheep classes, a raiser of black sheep, a teacher of spinning and a world traveller in search of sheep and wool. Rita's particular interest in the Basque people has led her into a study of their culture, their traditions, and their sheep raising practices.

Bette Hochberg, who grew up amidst the spinning and weaving done by her Amish ancestors, is now a professional handspinner and weaver who regularly teaches classes and workshops in spinning. She is the author of *Handspinner's Handbook*, first published in 1976 and *Handspindles*, published in 1977. She and her husband Bernard are co-authors of *Spin Span Spun: Fact and Folklore for Spinners* published in the fall of 1979.

New Mexico spinner, dyer, and weaver **Joan Holborn** has taught workshops, been featured in gallery exhibits, and woven commissioned wallhangings. Her method for converting a traditional flyer-bobbin assembly to an electric spinner will be of interest and good use to everyone owning a traditional flyer-bobbin wheel.

Gordon

Dayton

Turner

Brenda Ekstrom and her husband Carl reside in the lake country of Dent, Minnesota where they maintain a flock of colored and white sheep for handspinning wool which they sell to spinners throughout the country. The Ekstroms' interests in weaving and spinning led to a desire to control the quality and diversity of wool from its source. Their small and growing business, known as Oak Stream Studio, is an enjoyable part of their homestead.

Katy Turner learned to weave in high school, and about ten years ago learned to spin on the great wheel. Katy feels that spinning and dyeing yarn for her own work is a rich, creative experience.

Schlegel

Burkhauser

Hochberg

Rowe

In 1975-76, while spinning for her Handweavers Guild of America Certificate of Excellence in Handweaving, her beautiful antique great wheel started to display frightening symptoms of advanced age. Her husband Lew built her a new one for production spinning. That was the beginning of the Obadiah Tharp Company. (Obadiah Tharp was Lew's great, great grandfather and Sarah, his wife, was a spinner.) When the "Sarah" started to sell, Katy had to come to grips with demonstrating, teaching and thoroughly understanding the design and technique of using the great wheel for handspinning.

Freida Hammett-Bregger has been spinning for about seven years and now teaches spinning in Pendleton, South Carolina where she lives. She is currently the vice-president and program chairwoman of a thriving young handweavers' guild, plus giving demonstrations at fairs and craft revivals. She also entered cotton yarn in the SPIN·OFF WORLD BOOK OF RECORDS CONTEST (see page 14) which may have cured her need for spinning cotton forever!

Jude Burkhauser is a handspinner and tapestry weaver presently working as Project Coordinator for the New Jersey State Library/ National Endowment for the Humanities "Ways of Knowing" Project, which will bring pre-packaged programs in the humanities to the statewide library community. She resides in a railroad freight station preserved as a bicentennial project on local history and *architecture* which is, to quote Dorothy Liebes, "the mother art of all of the arts".

Eliza Leadbeater is a well-known English handspinner and the author of *Handspinning*, currently being distributed in the U.S. by Brandford. She and her husband, Chris, raise "primitive" sheep and flax, and maintain a shop at Rookery Cottage in Cheshire. Eliza has taught handspinning in Great Britain and abroad; she especially enjoys spinning yarn from the "rare" fleece she discusses in her article on native British sheep breeds.

Beverly Gordon is currently the assistant to the curator of the Helen M. Allen Textile Collection at the University of Wisconsin. She is the author of *Shaker Textile Arts* due for publication by the University Press of New England and of *Felt and Feltmaking*, a Watson-Guptill book due for release in spring 1980.

Eugene Decker, associate professor of wildlife biology at Colorado State University, first became interested in wild sheep while working for the Montana Fish and Game Department in the early 1960's. Since then he has developed and supervised three wild sheep programs—the Urial sheep in Iran, desert sheep in New Mexico, and Rocky Mountain Bighorn sheep in Wyoming. In addition, he is a founder of the Rocky Mountain Bighorn Association, a laymen's group promoting sheep conservation, and has developed the North American Wild Sheep Conference. He contributed a chapter on exotic wildlife to *Big Game of North America* (1978) and edited *Wild Life Conservation Principles and Practices* (1979). Gene has been involved in fiber crafts for over 30 years, tying trout fly bodies from the fur of seal, fox, woodchuck, rabbit, musk ox, elk, moose, deer, sheep wools, squirrels, and from many feathers.

ANNOUNCING . . . the winners of the SPIN·OFF '78 BOOK OF WORLD RECORDS just-for-fun spinning contest.

Congratulations to the following spinners who spun the greatest length of single (not plied) yarn per ounce of fiber in each of the categories designated. These people can spin a fine thread! Winners receive a free copy of **SPIN·OFF 3.**

WOOL – THE WINNER . . .
Beverly Royce, Langdon, Kansas – 903.8 yards spun from her own "western" ewe on a LeClerc Saxony wheel
Honorable Mention . . . **Janet Hanley**, Boulder, Colorado – 755.8 yards spun from natural grey wool top roving on an Ashford wheel

COTTON – THE WINNER . . .
Freida Hammett-Bregger, Pendleton, South Carolina – 2,219.7 yards spun from Lily premium cotton on a Charka wheel
Honorable Mention . . . **Harry Linder**, Phoenix, Arizona – 731.43 yards spun from Phoenix, Arizona area natural brown cotton on a bobbin-flyer wheel

FLAX – THE WINNER . . .
Harry Linder, Phoenix, Arizona – 480.24 yards spun from flax sliver on a bobbin-flyer wheel
Honorable Mention . . . **Col. James A. Ronin, Ret.**, Richardson, Texas – 390 yards spun from Belgium line flax on a castle wheel

SILK – THE WINNER . . .
Harry Linder, Phoenix, Arizona – 607.25 yards spun from silk brick on an electric bobbin and flyer wheel
Honorable Mention . . . **Claudia Lee**, Bridgeport, Connecticut – 192.78 yards spun from silk top roving on an Ashford wheel

OTHER (All Other Fibers) – THE WINNER . . .
Harry Linder, Phoenix, Arizona – 590.53 yards spun from Alaskan Quiviut (musk ox) on a bobbin and flyer wheel
Honorable Mention . . . **Barbara Schaffer**, Madison, Wisconsin – 378 yards spun from Ramie on a 100 year old Norwegian flax wheel

THE SPIN·OFF HALL OF FAME

For her gossamer thread, we are pleased to announce that **Freida Hammett-Bregger** of Pendleton, South Carolina (U.S.A.), who spun 2,219.7 yards of cotton on a Charka wheel (which is actually a wheel-turned spindle), has been awarded a sterling silver pin in the shape of a ram, handcrafted by Jeanne Haviland Nash. Freida spun the most yards per ounce of her chosen fiber, cotton, which was more than twice the yardage spun by any other spinner entering yarn in SPIN·OFF '78's just for fun World Book of Records spinning contest.

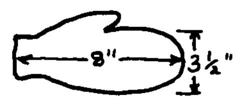
We invite readers to try to break Frieda's record by submitting longer skeins of their chosen fiber before May 1, 1980.

We have two challenging competitions this year – try one or both! Each requires some planning, scheming and designing skills, as well as spinning skills. Both will be judged by scientifically accurate, objective methods.

WARMEST MITTENS CONTEST

Spin a pair of mittens with the greatest possible thermal properties.

- must be constructed entirely from handspun yarn, using any techniques, any fibers.
- must be at least large enough to fit the editor's hand (see below).
- the pair must not weigh more than 8 ounces
- please include a 1 yd. sample of yarn used, and a swatch of raw fiber.



MOST DIAPHANOUS SHAWL CONTEST

Spin a gossamer shawl; the shawl which can be pulled through the smallest ring by its corner is the winner!

- must be constructed entirely from handspun yarn, using any technique and any fiber
- size – 30" square
- weight – between 2.5 and 3 ounces.

Deadline for all entries: May 1, 1980 (entries will be returned after judging on request). **Prizes:** Winner in each division will receive a sterling silver, hand-crafted sheep pendant. Honorable mentions will be awarded a free copy of SPIN·OFF 4 (1980), plus much fame and glory.

Send entries to:
SPIN·OFF BOOK OF WORLD RECORDS
306 North Washington Avenue
Loveland, Colorado 80537

CONFESSIONS OF A BRAVE NEW
COTTON SPINNER

by Frieda Hammett-Bregger

Mother says that I am the brave one in the family. Well, it is true that I have walked questionable streets in New York City at midnight. And I have crossed the Gulf of Mexico in a small boat during big-choppy-water-weather. And I went to Europe on my own, not even knowing how to speak another language—though I could read one. I also agreed to keep my husband's 15 year old cousin for a year. Now, my friends ask how I have the courage to tackle spinning an ounce of cotton into thousands of yards.

Well, one of my more knowledgeable spinning friends kept telling me that an ounce of cotton was a lot of yarn. "Yes, I know," I said. "But SPIN·OFF is having a contest to see who can spin the most yards out of an ounce of cotton. So, we'll have the same contest for our St. Distaff's Day celebration." My friend dutifully weighed out ounce after ounce for our local contest as I inwardly gasped at the amount of an ounce of cotton.

During our St. Distaff's Day celebration the local television station filmed some of the activities. It would make interesting copy, they said, if I would spin on my charka wheel. So, I took the ounce of cotton—well, it didn't look *that* big; I could finish it in a few hours—and started to spin for the camera (and our spinning group). Right here I should confess that I learned to spin cotton about two months prior to this occasion at a workshop that Persis Grayson gave. Also, I had acquired my charka two weeks earlier and had spun an indeterminable but small amount, (maybe two ounces, I thought) on it.

When I saw the clip on the local news that night it didn't show my left hand drawing out the cotton. Instead, my right hand turning the wheel and foot anchoring the case were the focus. And I knew why, recalling sweaty palms and more breaks than inches spun.

Undaunted by not finishing the ounce during our celebration, I had announced that all cotton spinners could finish their work at home and the winner's work would be sent in to the national contest whose deadline was almost two months away. As soon afterward as I could find time away from one and three year old children—lucky day when they both napped at the same time—I sat down to spin again. I counted myself fortunate to find an hour to spin before they went to sleep for the night.

Soon my spindle was as full as I felt comfortable spinning on it. I still had lots of cotton to spin though I had already spun at least 18 hours. But it was time to skein it. Gingerly, I started unwinding it, with visions of several thousand yards in my head. I had estimated and hoped for a total of about 6,000 yards, based on the knowledge that ancients reportedly got 10,000 yards out of an ounce. Despite my gingerly touch, the yarn broke. I tried to twist it back together. After an hour of skeining I decided to tie instead of twist breaks. Then I lost the end of the yarn with the next break. Following a futile hour's search, persistence paid off. After skeining it off, the yards were counted and my heart sank. I had 342 yards. And 21 hours of work.

I had spun lots more as my "dirty-word-pile" of breaks and the too big beginning yards testified. "Why don't you just give up. You don't have time to do that. Besides you have lots of other things you want to spin." But my husband didn't understand. I was committed. Committed because I was one of the organizers for the spinner's day and I had made up the contests. Because I was the spinning teacher. Because I had started it in front of all those other spinners. Because someone from this area had to do it. I called my knowledgeable spinning friend and asked how her cotton spinning was coming. "Well, I haven't done too much more on it. I know it is going to take a long time and working all day, I don't have much time."

Friends exchanged babysitting services with me, and I spent my freed hours spinning. Hour after hour passed and the ounce of unspun seemed to grow bigger and bigger. My knowledge of spinning with the charka and cotton grew. My pocketbook got thinner though as first I bought Linder's book, then cotton cards, and then hired a babysitter. But I was committed and with 35 hours into it and 1,000 yards spun, I was determined to finish that ounce of cotton. Besides all my friends knew, and I couldn't quit.

At two a.m. one morning about six weeks after I had started, I was thinking I saw the end of the tunnel. I called up a friend the next day to use his gram scale to weigh what I had spun and replace the weight of my "dirty-word-pile". If I had anything over 21 grams, I would be happy, I said to myself. My "dirty-word-pile" weighed 7½ grams, just over a quarter of an ounce. So I wasn't happy. But I was determined; after all, I was committed, though I confess I wasn't very excited about ten or 15 more hours of fine cotton spinning. And where would I find the time to spin that last week before the samples were due?

Somehow, despite sick family and a bad burn on my right hand that last week, those 15 plus hours appeared. That ounce of cotton had turned into over 2,000 yards of finely spun yarn. Over 60 hours of work had gone into it. And I knew that I wouldn't win. I could spin thinner next time. Brave? No. Foolish? Maybe. Definitely a tactilist, seeking hour upon hour upon hour of cheap thrills. □

WOMEN AS SPINNERS:

NEW ENGLAND SPINSTERS

by Beverly Gordon

The word "spinster" evokes an image of a fortyish woman, hair just beginning to turn gray, a little aquiline in feature, somewhat bony, perhaps. She wears a brooch fastened at the collar of a rather high-necked blouse. She is probably a clubwoman, and is undoubtedly someone's aunt. Happily, this stereotyped, limiting, and largely untrue image of the unmarried woman is becoming anachronistic; certainly, the word "spinster" is passing out of everyday usage. The actual derivation of the word, however, and the clues that it provides to an important part of our social heritage, still bear examining.

In the early years of settlement in this country, the spinning of wool and flax yarn was extremely important. The settlers brought their clothes and household linens with them, and later tried to import them from England whenever possible. The constant demand for more cloth made reliance on imported goods impossible, however, and it became necessary for the settlers to produce their own fabric. It was so important to the general well-being of the public, in fact, that in both Connecticut and Massachusetts laws were passed as early as 1640 to encourage the cultivation and spinning of flax and wool. By 1644, only 24 years after the colony was settled, there were over 3,000 sheep in Massachusetts. In 1648, in order to insure maximum fleece production, the colony made it illegal to butcher any sheep until it was two years old.[1]

Fiber production became so important that each family was required by law to spin a minimum amount each year, or pay a fine as a penalty. An order issued by the Court of the Massachusetts Bay Colony in 1656 stated, "All hands, not necessarily employed on other occasions, as women, girls, and boys, are enjoyned to spin according to their skill and ability . . ."[2] It was assumed that the men were out clearing the forests and tilling the land, but women and children, working in the home, would be able to find the time to spin. *Unmarried* women, not burdened with the responsibilities of young children, would of course have the greatest proportion of their time available for spinning. These women therefore became spinners, or "spinsters".

Spinsters were sometimes professionals of a sort. Each family was expected to produce a certain amount of yarn each year (90 pounds, at least about 1658), but this production was more of a hardship in some situations than in others. If the livelihood of a family depended on all of its members working full time, leaving little time for spinning, it might be allowed to have a spinster come and fulfill part of its obligation. A full-time spinner was expected to work 30 weeks a year, producing three pounds of wool, linen, or occasionally cotton yarn each week. (This involved up to ten hours of work, excluding fiber preparation.) A busy family might be granted a half, or fourth spinner, if not a whole one. The woman who did this spinning went from house to house, using the wool or flax provided for her by the family she was working for.[3]

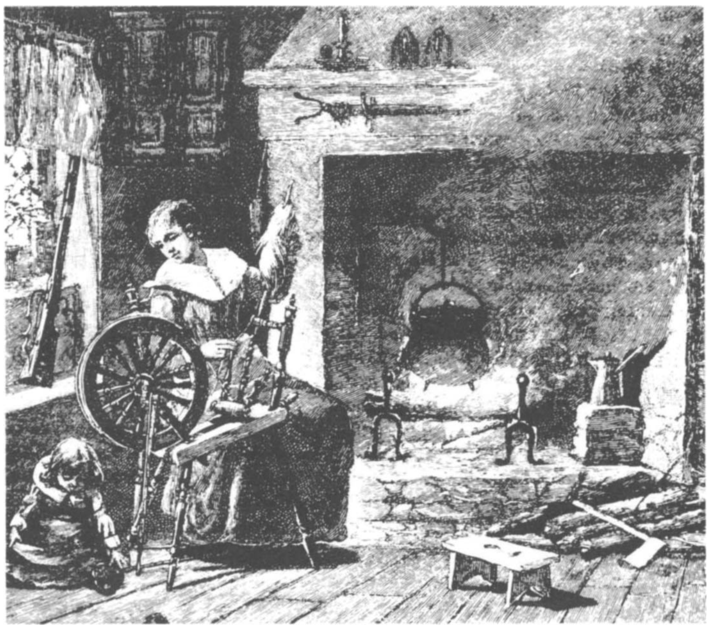
As late as 1690 in Rhode Island, taxes were paid in wool, not money,[4] but the legal obligation to produce yarn seems to have eased up in the colonies by late in the 17th century. Spinning did, nevertheless, remain a critical activity, and there continued to be professional spinners. In 1702 the Selectmen of Boston voted to buy spinning wheels in order to provide work for the poor.[5] This was the first in a long series of 18th century activities that encouraged spinning, both as a patriotic, "feminine" pastime, and as a useful, productive activity for the less fortunate colonists. In 1719 some Irish settlers came to Boston. The Irish were highly skilled in the spinning of flax (linen) and they were able to generate a good deal of excitement about spinning in the English town. According to the Massachusetts Historical Society Records, the "spinning industry was introduced by two [of these] gentlemen from Ireland. On pleasant days, old and young, rich and poor repaired to the Common with their wheels, competing for a prize of five pounds for the best yard. This craze lasted two or three years."[6]

In 1735, the *Boston Gazette* also reported on spinning on the Common: "On Wednesday afternoon, near 300 spinners, some of them children of 7 or 8 years old and several of them daughters of the best families among us, with their wheels at work, sitting orderly in 3 rows, made a handsome appearance . . . [Members of the Society for Encouraging Industry and Helping the Poor were] attended with musick . . . as they walked in procession to view the said spinners. Several thousand spectators assembled on this occasion."[7] In the 1740's, also in Boston, a society was formed for the promotion of textile work industries. It too used the Common, and held a "grand exhibition" of its work there in 1753.[8]

The *Boston Newsletter* of March 1, 1770, reported that "the laudable practice of spinning is almost universally in vogue among the female children of this town, whereby they are not only useful to the community, but the poorer sort are able in some measure to assist their parents in getting a livelihood."[9]

The last and greatest spurt of public spinning enthusiasm and activity of the 18th century was the result of patriotic feeling around the time of the Revolution. After the Stamp Act of 1765, in particular, it became a matter of American pride to wear homespun, and importing yarn or cloth was suddenly unfashionable. The President and the first graduating class of Rhode Island College (now Brown University) voted unanimously to wear only fabrics made in New England at their graduation ceremony.[10]

Particularly during the war, all women, even if they had servants, found themselves spinning. A cambridge, Massachusetts woman named Dorothy Dudley wrote in her diary of August, 1775: "Our hands are soldier's property now; jellies to be made, lint to be scraped, bandages to be prepared for waiting wounds. Embroidery is laid aside and spinning takes its place."[11]



Spinning was an activity that was almost exclusively associated with women. Indeed, the phrase, "the distaff side of the family" refers to the mother's, or woman's side. (The distaff is an attachment to the flax or treadle wheel or a separate staff that serves as a frame on which to wrap the combed flax.) Women took pride in fine spinning, much as they take pride in begin good cooks today. And, as we now have recipe contests and bake-offs, there was an established tradition, particularly during the Revolutionary patriotic frenzy, of spinning contests. Contestants competed both for quality and quantity, depending on the match. Many towns had annual contests; in Deer Isle, Maine, this tradition remained unbroken until 1903.[12] One particularly complete story of a spinning contest was told by the Reverend Grant Powers, of Goshen, Connecticut. This story gives a good feeling for how important excellence in spinning was to the self image of a colonial woman:

> There arose a spinning match among the young married ladies . . . The trial was at the foot wheel in spinning linen. The conditions were previously defined and agreed to, viz: they might spin during the whole 24 hours if they chose. They were to have their distaffs prepared for them, and their yarn reeled by others. Upon the first trial. . .many did well. . .Mrs. Tuttle came off the victor [with 5 runs, said to be worth two and a half days labor.] But this aroused the ambition of some of the unmarried ladies . . . [One] spun from early dawn to 9:00 in the evening. She had her distaff prepared, her yarn reeled, and her food put in her mouth. She spun in this time seven runs, or three and a half days labour.
>
> Upon hearing of this exploit [another lady] came upon the arena. Between early dawn and the setting of the sun, she had actually spun six runs, but at this moment her husband interfered and peremptorily forbade her proceeding further. She sat down, and wept like a child, when she ought to have rejoiced, that she possessed a husband, in whose eyes her future health and happiness were more precious than the brief applause which might arise from success in that contest.[13]

Apparently Reverend Powers was unable to see just how much of her self respect this woman had at stake in winning the contest, for despite his praise for the husband, he goes on to say that the woman was never again completely well.

Unusual events like this aside, spinning was an integral part of the life of the colonial woman. The spun yarn was used for all kinds of daily necessities, everything from feedbags and horseblankets to sheets, towels, elaborate coverlets, and clothing. Some women, particularly in rural places, did their own weaving with their homespun, but perhaps more often they brought it to local professionals who wove cloth to order. The endless knitting of socks, mittens and underclothes was done at home with handspun yarn. There was also a great deal of trading of yarn for necessities and groceries, such as salt, sugar, and tea. Yarn was sometimes also a form of payment; for example, the women of a community often got together and spun a quantity of yarn for their minister and his family. In Litchfield, Connecticut, in 1760, Reverend Amos Chase received 70 runs of yarn, which had been presented to him by 60 female parishoners.[14] There are also stories of spinning bees where a minister would make a day-long sermon, and receive as payment all that had been spun during that time.[15]

In many places, spinning wheels were considered a necessary part of a dowry.[16] Reports of what was necessary for a "proper" dowry are generally undependable, since it varied so much according to place and time, and since there is a good deal of romantic folklore about it. But it is further safe to say that the linen chest was a crucial part of any new household. These chests would contain as many as ten pairs of linen sheets, and numerous towels. Much or all of this linen was usually spun by the bride-to-be.

Spinning was often a social activity. In addition to the numerous descriptions of spinning on the Common, spinning contests, and spinning while listening to a sermon, as mentioned above, there were frequent informal get-togethers of spinners. There are many descriptions of this type: "It was not unusual, in Colonial days, to see a woman on a horse, with her spinning wheel rigged up behind her, setting off on a long ride through the wilderness for a few hours of gossip and work of this kind."[17]**

Another image, perhaps referring to a lady of the town rather than the wilderness, states that when the weather permitted, "the wide hospitable door would be thrown open and the thrifty housewife in afternoon dress . . . would step back and forth before the great wool wheel set in the spaceway spinning fine yarn while neighbors dropped in."[18]

On the other hand, the image of the solitary spinner is a very strong part of American folklore. The woman sits alone at her wheel, humming or singing quietly to herself. She is seen as a self contained, a meditative figure such as the one in Samuel Goodrich's (b. 1793) description of his childhood memory: "Molly Gregory, daughter of our neighbor helped spin the wool in our family. . . In her solitary operations aloft, I often heard her send forth from the attic windows the droning hum of her wheel with fitful snatches of a hymn."[19]

Because spinning is always a rhythmical, repetitive activity, it is often associated with rhyme and song. There are many references to the "drone of the wool wheel", and the "hum of the flax wheel". One New Hampshire woman is said to have kept up her almost trance-like rhythm as she said over and over for hours, "Tumpty, tumpty, let's be walking, tumpty, tumpty, let's be walking. . ."[20] And A.E. Rollins remembered her Aunt Hannah, spinning on her flax wheel, singing this verse:

Wither goest thou, pilgrim stranger,
Wandering through this lowly vale?
Knowest thou not 'tis full of danger?
And will not thy courage fail?

Hannah paused, and answered her own question, treadling faster with the rejoinder:

No, I'm bound for the kingdom!
Will you go to glory with me?
Hallelujah! Praise the Lord![21]

With the increased availability of imported fabric and the advancing industrialization of the 18th century, spinning became less critical as an everyday activity. Manufactured cotton was also increasingly available after 1800, and flax became less of a necessity. Sheep production, in turn, declined sharply by the 1830's.

Rural women, as could be expected, did continue spinning much longer than city women, and the activity did not die out in remote areas until late in the 19th century. Even by 1886, however, one author referred to spinning wheels as quaint "objects of curiosity", and reported on searching them out in old garrets.[22] What had been referred to in 1794 as the "hobby horses of the publick"[23] had, 100 years later, been largely put aside as souvenirs. The wheel became the symbol for early America, but only in a romanticized way. Wheels were collected as antiques, and displayed incorrectly set up, or even with plants growing in and around them.

Happily, handspinning is coming back into vogue as a craft today, and because of this, there is an effort being made to understand the heritage of the spinner. In examining this, we are getting back in touch with something that was a vitally important part of our social history. Hopefully, we can come to understand what a "spinster" actually was, and can give her the credit she is due.

NOTES

[1]Ann Hedlund, "Notes on Early American Spinning and a Catalogue of the Deerfield Collection of Wheels." (Summer fellow monograph, Henry N. Flynt Library of Historic Deerfield, Inc., 1973) n.p.

[2]Alice Morse Earle, *Home Life in Colonial Days* (Stockbridge, Massachusetts; Berkshire Traveller Press, 1974) pp. 179-180.

[3]Ann Hedlund, op. cit.

[4]Nancy Dick Bogdonoff, *Handwoven Textiles of Early New England: Legacy of a Rural People 1640-1880* (Harrisburg, Pennsylvania: Stackpole Books, 1975) p. 21.

5 C.J.H. Woodbury, "Textile Education Among the Puritans," *Bulletin of the National Association of Wool Manufacturers* (Boston, 1911) p. 24.

[6]*Massachusetts Historical Society Records*, Series 1, Vol. 3, as quoted in Helen Bowen, "The Fishing Lady and the Boston Common," *Antiques*, August, 1923, p. 72.

[7]Ann Hedlund, op. cit.

[8]Helen Bowen, op. cit., p. 73.

[9]ibid.

[10]Alice Morse Earle, op. cit., p. 183.

[11]As quoted in Barbara C. Gilbert, "American Crewelwork 1700-1850" (Masters Thesis, the University of Delaware, 1965.)

[12]Elizabeth Cynthia Barney Buel, "Tale of the Spinning Wheel," Litchfield, Connecticut, 1903. (Mimeographed) p. 38.

[13]ibid, pp. 40-42.

[14]ibid, p. 40.

[15]ibid.

[16]Stevenson Fletcher, *Pennsylvania Agriculture and Country Life 1640-1840*, (Harrisburg, Pa: Pennsylvania Historical and Museum Commission, 1950.), p. 424.

[17]Estelle Ries, *American Rugs* (Cleveland: World Publishing Company, 1950), p. 32. See also Alice Morse Earle, op. cit. p. 176.

**The woman riding off into the wilderness with her wheel behind her is obviously using a flax, or treadle wheel, even as she is spinning wool. The great wheel referred to in the quotation is the walking, or wool wheel. Both are suitable for spinning wool, but flax cannot be spun on the great wheel.

[18]Elizabeth Cynthia Barney Buel, op. cit., p. 38.

[19]Nancy Dick Bogdonoff, op. cit., p. 35.

[20]United States Public Works Administration Project of New Hampshire, *Hands that Built New Hampshire.* (Brattleboro, Vermont: Francis P. Murphy, 1940.) p. 151.

[21]Ellen Chapman Rollins, *New England Bygones.* (Philadelphia: J.B. Lippincott and Company, 1883.) p. 43.

[22]Henry M. Brooker, *Days of the Spinning Wheel in New England.* (Boston: Ticknov and Company, 1886). intro, n.p.

[23]*Typographical and Historical Description of Boston*, 1794, as quoted in Helen Bowen, op. cit., p. 72.

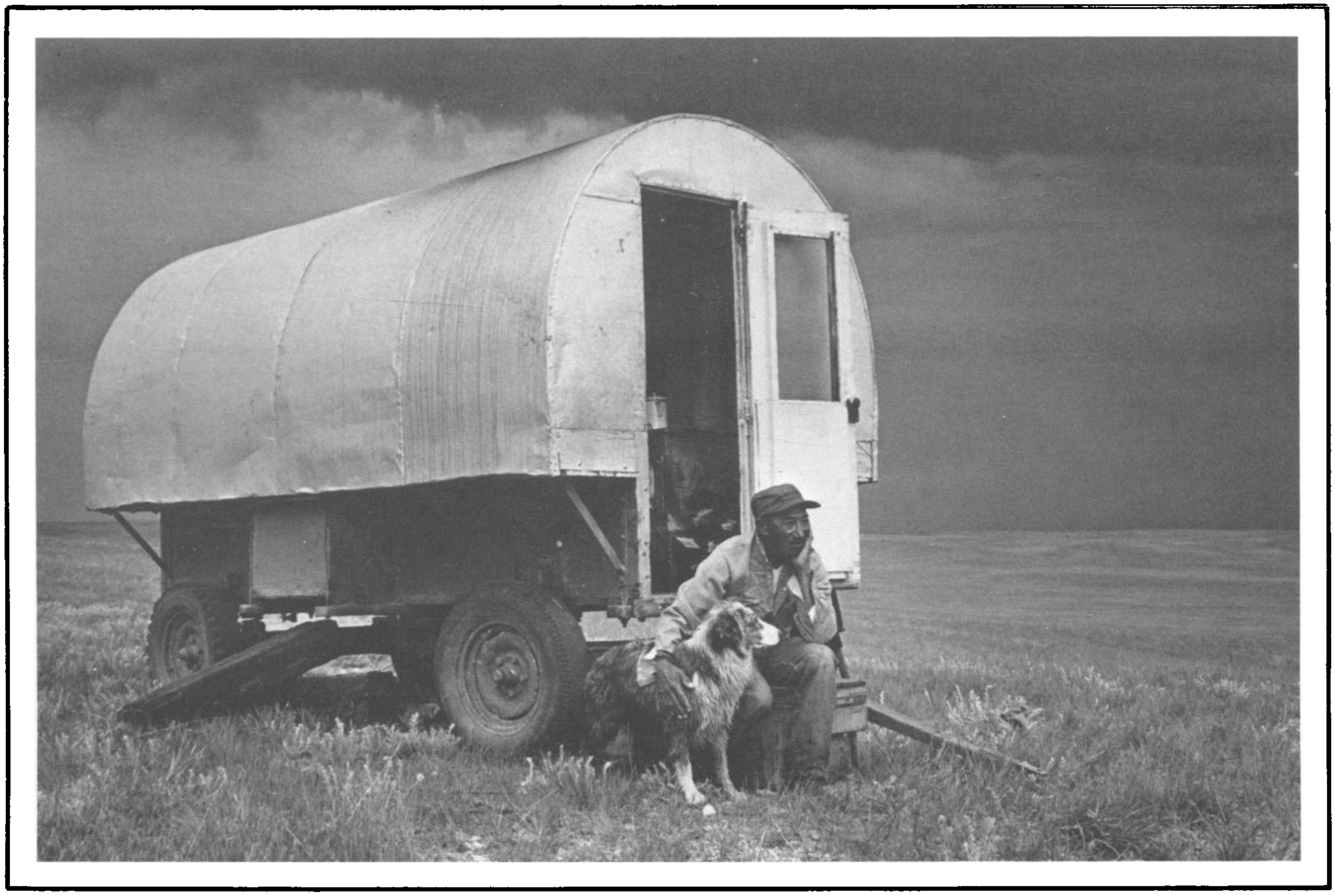


photo by Robert W. Schott, Inc., courtesy of American Sheep Producers Assoc.

THE AMAZING BASQUES & THEIR SHEEP

by Rita Dayton

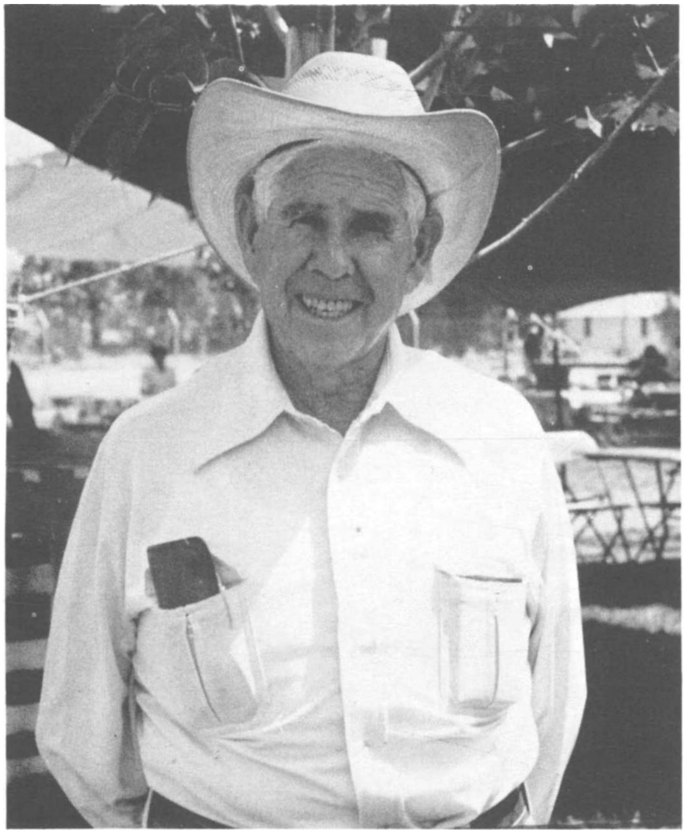
Iruten air nuzu, kilua gerrian
Ardura dudalarik nigarra begian.

I am spinning, the spindle at my waist
Tears in my eyes are flowing without hesitation.

Thus begins an ancient Basque spinning song. Its origin is as obscure as the Basque language itself. However, it has survived to this day, and whenever Basques see me spinning they immediately start singing this old tune. Just as the Basque women were thinking about various aspects of their lives while spinning wool, so modern spinners let their thoughts wander. Why do I smile and feel contentment when I sit at my wheel or use the drop spindle? Because so many wonderful things have happened to me since I became a woolgatherer. Among them ranks my acquaintance with the fascinating Basque people.

The Basques come from the Pyrenees mountain area of southern France and northern Spain. Their country consists of seven provinces—Bizkaia, Guipuzkoa, Araba, Nabarra, Zuberoa, Lapurdi and Basa Nabarra—but this country exists only in an ethnic sense. Basques refer to it as *Azapiak Bat* (one out of seven); they have never been a political entity. We cannot help but marvel at the ability of these people to have maintained their customs and language for 40,000 years, especially when our own way of life changes so quickly. It is even more amazing when we realize that many Basque sons and daughters have moved to other parts of the world. Since the Basque country measures only about 100 square miles, individual farms could not support all the offspring, and emigration became a part of Basque life. Many of the Spanish explorers were actually Basques who had developed the whaling industry. Basques have relatives all over the world, and since the turn of the century the American West has attracted them in large numbers. Jean Esponda is credited with the settling of Buffalo, Wyoming and Chino, California, which had a Basque majority at one time.

Many of the pioneering sheepmen in the western United States were Basque. Typically, a young man would leave his homeland, come to the United States, and hire out as a sheepherder for three years. During this time he saved as much money as he could so he could become the owner of a band of sheep himself. Quite often an employer paid his Basque sheepherder with sheep and permitted him to run his own ewes along with those of the boss; this practice has been abandoned today, however. After the contracted years were up, these successful sheepherders could return to Europe and start a business with the money earned abroad.



Juan Arrache, Sr., well-known Basque sheepman, at Bakersfield picnic, 1979.

In other cases, these successful Basque sheepherders bought or leased large tracts of land in the western states on which to work their own sheep, with the result that they often ended up with larger ranches than their initial employers. References have been made to the Basque "empires" in Nevada, California and Wyoming because of these land holdings and large flocks of sheep. Today, many of these "empires" are being divided among the sheepmen's children who may or may not choose to raise sheep. Some have sold their inherited share of land and invested in hotels, radio stations, and interests other than sheep. Those who elect to raise sheep often have university agricultural training to couple with the first-hand knowledge and experience acquired while working with their parents. Those Basques who remained in this country and raised their children here have kept close ties with the old country through frequent visits across the ocean. Naturally, anyone going across to the Basque country carried messages both ways, thus keeping relatives up to date about family members.

The desire to keep in touch with one another and maintain their Basque heritage is reinforced by the Basque festivals which were started a few years ago by the North American Basque Organization. These picnics are held wherever a significant Basque population is present. One of the best known takes place in Ely, Nevada, and the newest one recently began in Fresno, California. Here Basques meet and enjoy a delicious lamb barbecue, sporting events and dancing. Basque children dressing in the Basque colors of red and green perform dances which they learn even before they go to school. As they grow older they master the intricate *jota* or *Dansa*. The latter requires a dancer to dance very closely around a filled wine glass and even to jump on it without spilling a drop. Everyone present watches with pride and appreciation because these dances demand great skill and stamina while appearing very graceful. For example, a fast *jota* will be followed immediately by a dance that stresses lightfootedness. The dancers are already out of breath, but they will give their last bit of energy to this dance. An accordion player like Louis Beheretche usually comes especially from France to play Basque songs and polkas. It is not uncommon to see people 60 years old joining in these strenuous dances. In between, wine from a *chahakoa* (*bota*) refreshes and loosens the tongue to make conversations happy and easygoing. The Basques know how to forget their everyday problems and give in to complete relaxation and fun.

My interest in wool has taken me to various countries and shearing plants in the southern California desert. I have noticed that the woolgrowers and many of their employees speak Basque, a language that predates written records and exists today without connection to any other tongue. There are, of course, other American sheepmen, but I have been overwhelmed by the Basque majority. Over the years they have acquired such a reputation of being topnotch sheepmen that a Basque surname is supposed to be synonymous with expertise in running sheep. Typical Basque names are Etchemendy, Mendiburu, Iturriria, Ansolabehere, Harriet, and Esponda. Of course, a name cannot guarantee success, and most Basques are successful because they work hard and love their work with the sheep. Extra strength and effort are expressed by the Basque word "indarra".

Indarra is a quality Basques admire, and one can hear the word often while watching a traditional Basque *pelote* ball game which resembles handball of jai alai. Two players or two teams hit a small leather ball against a high cement wall. It stings the skin because a player has to hit it hard to even get it across the long court. All the while the *pilotari*, or ball player, is constantly running like a tennis player. As he tires, the real strength of the man is revealed. Part of the strategy involves the attempt to chase the opponent into nearly impossible areas of the cement court. Fathers teach sons to play ball, just as they teach them to work sheep—work hard, play hard, and be happy.

Today, Basques often gather in Basque restaurants, which usually started out as hotels renting rooms to sheepherders between jobs. They were located near railroad stations so a newly arrived Basque could find them quickly when he arrived in an American town. This was important because Basques often spoke no English. Even after spending three years here, a Basque sheepherder did not always learn the English language because life in a sheep camp isolated him from American society. Meals in Basque restaurants are usually served "family style" at long tables, which permits strangers and Basques to "rub elbows" while enjoying freshly prepared homestyle cooking. Basques seem to have the ability to adapt to their surroundings and to other people without surrendering their Basque ways. As new immigrants, they often accepted work which local inhabitants shunned. In Australia they cut cane in sugar fields; in the United States they resumed a traditional way of life and became shepherds.

A sheepherder has to be on the job 24 hours a day, seven days a week. He may take a vacation once a year or spend an occasional night in town. He adapts the yearly cycle of the sheep to the seasonal climate of the area in which he lives. Breeding, lambing, shearing, feeding and marketing are major concerns of the sheepman, and environmental protection and predator control, which directly affect his "crop" of meat and wool must be taken into account. The Basque sheepmen work hard, long hours to raise good products, and their dedication to their sheep is hard to match.

While the herder is in the sheep camp, he finds many things to occupy his time when he is not directly concerned with watching or caring for the sheep. Some Basques have taken up wood carving and create intricate sculptures or practical utensils. In earlier days Basques cut trees in the Pyrenees and built their own furniture. In the United States Basques started a new pastime—carving words and pictures in the trunks of aspen trees. As the tree grows older, the dark writing shows up better on the white bark. Arriving at such a sheep camp in northern Wyoming last year I felt strangely welcomed by these "talking trees". I spent many hours "reading" trees and wondering about the authors of the various messages. Needless to say, I tried my hand at it too. In the northern states herders began building sheepherders' monuments. These are columns of flat stones piled on top of one another, usually on a hill visible from far away. They serve as markers to the wanderer who might otherwise get lost in those uninhabited areas.

But, if a herder cannot cope with the isolation and loneliness, he will get "sheeped". His mind starts to wander, and he may suffer from hallucinations. Around the turn of the century a herder's only contact with people was the visit of the camp tender who brought his supplies once or twice a month. Today's herder is not as isolated in southern California where urbanization is steadily eating up his grazing land, nor in other western areas where hikers may wander into his camp. His boss sees him at least once a week, and city people may drop by more often than he likes. In addition, he may own a transistor radio or other communication device.

And so we find the Basque sheepman engaged in one of mankind's oldest occupations. His so-called clannishness has kept his language and customs alive, and has instilled in him tremendous pride in being Basque. I am grateful that so many Basques have become my friends and hope that I can put into practice what they have taught me about the sheep business. The Basques work hard, play hard, they enjoy their work and they love life. They are a happy people. □

Max Ortis' crew shearing at Reclusa's Ranch sheep shed, Buffalo, Wyoming. photo by Gary Graf

HANDSPUN YARN AS ART

by Jude Burkhauser

In an article written for SPIN·Off '78, "Handspinning as Art", Linda Berry Walker points out that her "WoodsEdge Woolies", a group of one ply yarns spun mostly from her own sheep, are marketed under the sheeps' names. What this implies is that a skein of "Duke" or of "Daisy" are in themselves objects of art, of a completed artistic process which may have begun several years before when the ram or ewe was first selected for inherent fiber qualities and the promise that good breeding and quality control along each step of production would result in a fine finished work.

Because we live in a world that is largely "ready-made", this concept of material (yarn) as art seems foreign to many. Some would argue that the yarn itself does nothing to enlighten mankind's spirit, or that it makes no statement and cannot therefore be art—but they would be wrong. "Duke" hanging next to "Daisy" and the others IS art. The statement made has to do with quality of life/quality of time/the importance and reverence for life. If we believe that we are what we eat, we are what we experience, than too we must believe that our art is the elements we incorporate to make our creative statement. Paloma Picasso is quoted as saying her father taught her "nothing is wrong in art, except a disrespect for materials."

The artisans of our society, past and present, have produced quality objects for the use and the uplifting of humanity. Our contemporary society is coming from a post-industrial disenchantment with "shoddy workmanship", the assembly line abortions that pass as art, and aims now for a humanistic quality control on many of the artistic levels of human endeavor. This is evidenced in the area of fiber design where noted firms are looking to the handspinners for a "quality handspun" product. To assume that weaving is art and believe that it is not the sum of its parts is myopic. Every strand of fiber used to produce the work of art, just as the sum total of the fibers is art. Yes, a finished skein *is a work of art!* It takes going back one step further in the process of creation—akin perhaps to discovering that the light burns because the windmill has been constructed. The creator of the windmill is no less than the creator of the lightbulb.

For too long spinners have been looked upon with less than the respect due them. Weavers have long fought to be recognized as artists and have almost won that battle. Let the weavers and other fiber artists open their minds to the fact that it is the nature of their own work which gives credance to the handspinner as artist. The same industrialization which robbed weavers' respect as artists took along with it the respect for handspinning. To recognize the weaver as artist is to recognize, too, the handspinner.

Perhaps this feeling may best be summed up by quoting Walkers' advice to handspinners in her "Handspinning as Art: "Handspun yarns should have a character, a personality all their own and one which speaks of you, their creator. Consider your yarns as an art form—your means of creative expression, and let them speak for you." A skein of handspun yarn can tell us much if our artistic consciousness will listen. ☐

by Ann Foster

Kudzu—great galloping vine traveling throughout the southern U.S. since just after the turn of the century, rooted all the while and now, in fact, blankets its adopted homeland with greenery . . . and smiles, I'm sure with pride, at all the tourists who gape at the intriguing contours of its sculptures—mostly forest, house, and hillside shapes. As we take a closer look though, we find it almost beckoning us to discover its purpose and use—of which we find many. This wild vine offers medicine for upset stomachs, for pregnant ladies; such culinary delights as salad, sauce, and even noodles; last and perhaps most surprising of all are the 1001 translucent linen-like fibers available from it; its central woody core is also good basket-making material.

When I first began to study the kudzu vine in Japan, I actually had no idea that it would be available for use in this country. My main purpose was to work with people whose culture was at least a thousand years old; whose knowledge and understanding of their woods—their environment—had been honed over generations. To see first-hand how they approached their vines, wild linen, etc. would give me a broad understanding into the nature, character, and physical structure of vines and enable me to transfer my knowledge wherever I was working, with whatever vine. And so, even though one may not have the kudzu vine in a particular bio-region there may be grapevines (*Vitis*), honeysuckles (*Lonicera*), etc. to experiment with after an understanding of the kudzu process is obtained. Each bio-region has its own unique resources. The more we each come to know our own regional resources, the more we live and work with them, the more we can add another dimension to living, *connectedness*.

Kudzu (pronounced kood-zu), *Pueria lobata*, was introduced from Japan by Americans as a fodder and a ground cover against erosion. It went wild. It covers much of the southeastern U.S. but can also be found as far west as Kansas and as far north as New Brunswick, Canada. It can be easily recognized as a rampant creeping sprawl of large leaf vine. Most vines have small leaves, but this one is noticeable as the leaves are even a bit larger than grape leaves with an average leaf width of 5". When looking closely for identification, you will find the leaf is compound, palmately trifoliate, and pinnately-veined.

For centuries, the folk artisans of Japan have woven beautiful cloth from the long, silky strands which the vines provide. The idea and knowledge of this process came from older, more developed countries. Anthropologists believe it came from the southeastern coast of the Asian continent or through the archepelago. Influence of the Himalayan mountain people draws us still further back along the chain of civilization's development, and now we are the new chain. This past summer the process was taught for the first time in the U.S.

The extraction of the fibers for weaving, which is somewhat similar in principle to that used for obtaining linen from flax, can be completed in approximately five days. The entire process from the vine to finished product has its own yearly cycle. We are concerned here with this first stage.

Beginning in June, but predominantly in July and August, harvest the wild vines while they are still green and pliant. The fibers grow stiff as they age into the last of the season. Choose those vines which grow in an area where they can sprawl out as straight as possible without finding objects to wrap around along the way. A river bank is an ideal location in that the river shares some of the work in the process. It provides a natural wash basin for the long fibers, and its current helps to separate the bark from the vine at one point and the fibers from each other at another point.

In gathering the kudzu, choose the fattest vines of at least 6' and preferably 12' to 15' in length. Cut off each vine at its crown, remove all of the leaves, and then continue on with another. When 12 vines have been cut, gather their base ends, tie them together with a short length of vine, and wind them into a coil about 18" to 24" in diameter. Secure the coil loosely in several places with more vine or twine. Place the coils in the shade.

A fairly shallow, one meter cauldron is half filled with water and brought to a boil over an outdoor fire. Place as many coils in the cauldron as can sit comfortably enough for steam circulation, cover the pot and allow the contents to steam for 15 to 30 minutes. Now the coils should be turned over on their other side and left to steam for the same amount of time. The outer layer of bark will turn a deep brown and just begin to separate itself from the stalk as it becomes saturated with the steam and boiling water. Additional coils are steamed consecutively in the same way.

The coils can now be placed in the shallows of a river or creek, secured with a rock, and left to sit all night. It is at this point that the outer bark is generally being separated from the stalk, and often some is removed by the gentle flow of the current.

In the meantime, create a simple compost mound where the coils will be placed after their soak. In reacting to the change of temperature from the river's water to that within the compost mound in the heat of summer, the vines decompose further, causing the next or second layer to soften and to begin to separate away from the central core. This second layer, which lies under the bark and over a central woody core, is the layer of kudzu fibers which can be used.

A compost mound is easy to make. Dig a hole about 1' deep and large enough to contain the coils (3' to 6' wide and 6' to 9' long). If the ground is muddy, line the bottom with a layer of sand or pebbles. Top this with a 4" thick layer of straw followed by a 3" thick layer of green grass; the Japanese prefer *susuki* (Japanese pampas grass, or *Mascanthus sinensis*) or *kaya* (*Torreya nucifera*). If you do not have either of these, use the lush green grass you do have. Remove the coils from the river and drain for several minutes, then stack in the compost hole so that each one partially overlaps the one beside it. Cover these with 3" of green grass followed by 4" of straw; then cover the entire hole with a porous covering. Old cloth grain sacks work well. Secure the covering in about six to eight places with rocks. The coils are to ferment for 48 hours. After the first 24, check to see that the temperature is slightly warmer than body temperature. If it is above 104° F., some of the covering needs to be removed; if below 95° F., more covering and rocks are added. Plastic will work well, especially in case of rain, but the temperature should be checked regularly as it is likely to overheat the compost mound.

The vines are ready for the next step when the brown outer bark has decomposed to the point of mushiness and the second layer, when gently pressed with the thumb, separates itself from the central core. The coils are then removed from the mound, returned to the river or creek shallows, immersed in the circulating water, secured with a stone, and allowed to soak while you begin the washing process.

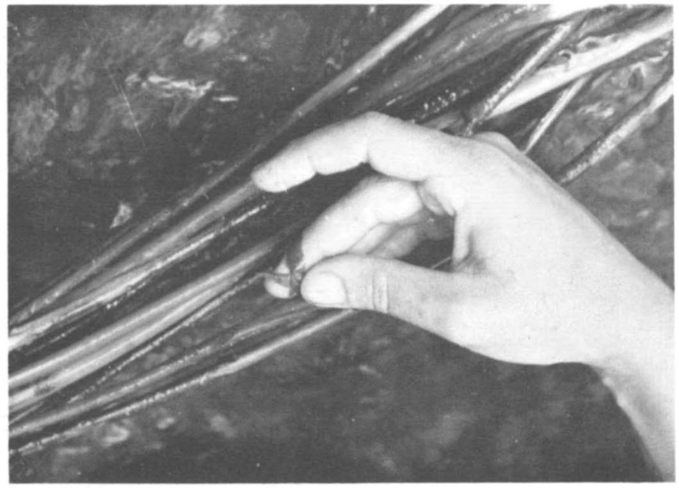
One coil is untied with one hand and held under water at the base, so that the loose tip ends float downstream. Run your free hand down the vine to remove all excess outer bark. As you complete a section, coil the vine up to draw it in for ease of working. The bundle of vines should be held securely at the base ends to insure that they stay in place and that none of the fibrous layer starts to come off with the outer bark at this stage.

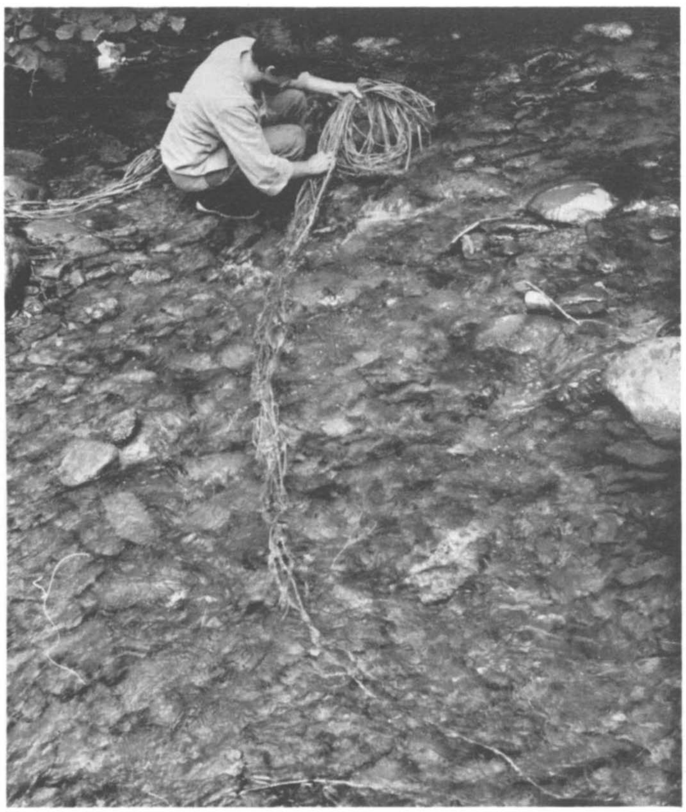
With the first washing completed, take all the coils to a dry area where there will be room to work with the vines uncoiled. Place all the vines from one coil in a straight line across your lap, with their base ends on your lap. Grasp the base end of one vine with the thumb and forefinger, then use the small finger on the other hand to very carefully work the sheath of kudzu fibers down toward the tip of the vine (as if pulling the skin off a snake), while the woody core is simultaneously being pulled out with the other hand. When the cores of all the vines in the coil have been pulled out, group the sheaths of fibers together again at their base ends and stretch them out straight (from looking like large wrinkly caterpillars).

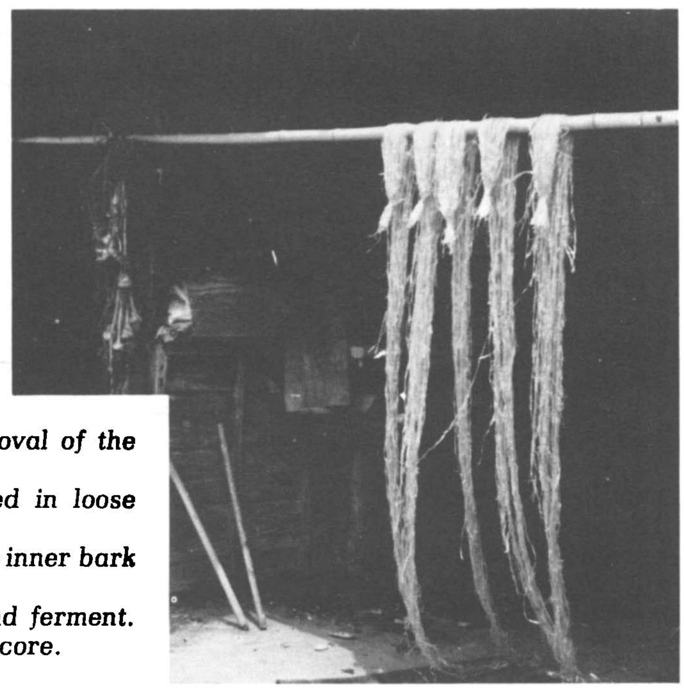
Take the bundles of fibrous sheaths to the river and hold them in the current as previously done and give them a second washing. Use your fingers very gently to comb the fibers along their full length, while separating them into ever finer strands and washing out all of the vine's remaining natural starch. After about 15 minutes of such washing, the supple white filaments wave in the current like a long silken banner. (An optional soaking in rice-bran water will give a slightly whiter color and softer texture.)

As you complete one coil of fibers, gather it and fold it in half as you squeeze the excess water out. Gently loop it into a hank and set it to dry on a clothesline or pole. Shake the hanks several times during this period to aid drying and prevent tangling.

Place one hank at a time in a shallow wooden or paper lined tub or basket. Pull a single kudzu filament from the hank, and starting from the base end, using the fingertips, split into several narrower strips, which are combed out to the tip. The strips' width depends on the type of cloth for which they are to be used. For very fine splitting, use a neddle point. Place the split fibers in another tub. When all of the fibers have been split, select two and tie them head to tail, using any compact knot; roll the knot firmly between thumb and forefinger to compress it. In quick succession, tie all the fibers to form a single long filament which you coil simultaneously to a length of about 250'.







1. *The vines are steamed in a cauldron to assist removal of the outer bark.*
2. *The vines are washed in running water and coiled in loose bundles.*
3. *The outer bark loosens and can be separated from the inner bark and woody core.*
4. *Coiled vines are placed in a compost pit to heat and ferment. This causes further separation of the bark from the core.*
5. *The flax-like kudzu fibers hang to dry.*

The fibers are a cross between a linen and straw. The finished strands remarkably resemble lustrous, almost translucent, straw-like silk. The finished cloth is lightweight; to the eye and hand it appears as a translucent linen.

The novel combination of the linen and straw-like qualities in kudzu fibers creates a cloth which is durable, wind resistant, and water repellent. It was first used for work clothes because of these qualities. It is so durable, in fact, that the old tales tell us that the first generation wears kudzu cloth as a jacket, the second generation wears it as a shirt, and the third, as underclothes. A little stiff in the beginning, kudzu cloth softens and mellows with age. □

WILD SHEEP

by Eugene Decker

The wild ancestors of domestic sheep form a most interesting group of animals. Wild sheep are found exclusively in the northern hemisphere in mountainous terrain from the Mediterranean islands across the mountains of Asia Minor, southern Russia, Iran, portions of the Himalayas in Afghanistan, Pakistan, northern India, Tibet, then north through Mongolia, Siberia, across to Alaska, western Canada, the United States and northern Mexico. Various species of wild sheep are found throughout their ranges. The largest sheep is the Argali ram of Mongolia which may reach weights exceeding 400 pounds and stand 4' at the shoulder. The smallest sheep is the Larestan of the dry central mountains in Iran, and some male Larestan weigh only about 100 pounds.

Wild sheep and domestic sheep are of the same genus, *Ovis*, and have some similar characteristics. In both cases, the males are larger and possess much larger curled horns. In most species of wild sheep, the ewes possess short slightly curved horns, while in other species some of the ewes are hornless. The most spectacular horns are found on the Marco Polo rams of the high eastern Himalayas of Afghanistan and southwestern Siberia. The horns of these mature rams can reach over 6' each when measured along the curve. While domestic sheep have fleece, no wild sheep has a fleece, as the body is covered with hollow hairs with an under fur. The dense winter coat is shed in late spring when it is replaced by the less dense summer coat, followed again by the winter coat.

Marco Polo

Wild sheep come in various colors, usually shades of brown. The Mouflon of Europe and Asia Minor has a dark brown to black coat with white body and face markings. The Urial sheep rams of Iran and Pakistan have a bib or ruff of pure white in the winter. There are two pure white sheep, the snow sheep of eastern Siberia and the Dall sheep of Alaska and northwest Canada. A subspecies of the Dall in northern British Columbia Canada is very dark gray to almost black. The mature Rocky Mountain sheep rams are often very dark brown, sometimes appearing to be a deep chocolate color. However, by the end of the winter, the constant exposure to the high altitude sun bleaches out the dark color, and they appear much lighter in the spring.

The most amazing behavior of the wild sheep is the ram combat during the fall breeding season. Mature rams fight for dominance of the ewes by crashing head-on after a charge of ten to 20 yards. The lesser of the two combatants realizes the superiority of the other and after several encounters will break off contact. Younger, smaller rams recognize their place in the hierarchy and seldom challenge the older, larger ones. The sound of the crashing horns can be heard for great distances in the mountains on still fall days and is an outdoor experience cherished by the few outdoorsmen who have witnessed it.

Wild sheep herds separate into two groups for most of the year. Rams over three years old form into bands that are normally well separated from the ewe/lamb bands, and often occupy the higher remote portions of the mountains. The two groups intermingle during the fall breeding season and may stay together in a loose association on the lower limited winter ranges.

In the spring, the rams follow the receding snow line to higher elevations while the ewes move to the "lambing grounds". Here each pregnant ewe will move away from the main herd to some secluded ledge in the precipitious rocky slopes characteristic of the lambing grounds. The lambs are born on the steep cliffs protected from most predators by the inaccessible terrain. The ewe and her lamb rejoin the main flock after a week or two, and the flock may move to higher slopes for the summer. However, they are never very far from the steep rocky "escape" terrain where they retreat rapidly at the first sign of danger. The playful antics of the agile lambs provide a wonderful experience to the cautious observer with powerful binoculars who ventures into their often remote summer pastures. North American sheep usually have single lambs, while twins are normal in the Asian species.

The wild sheep came to North America across the land bridge which connected Asia and North America about 2½ million years ago. They survived several ice ages and penetrated as far south as the Baja peninsula and northwestern Mexico.

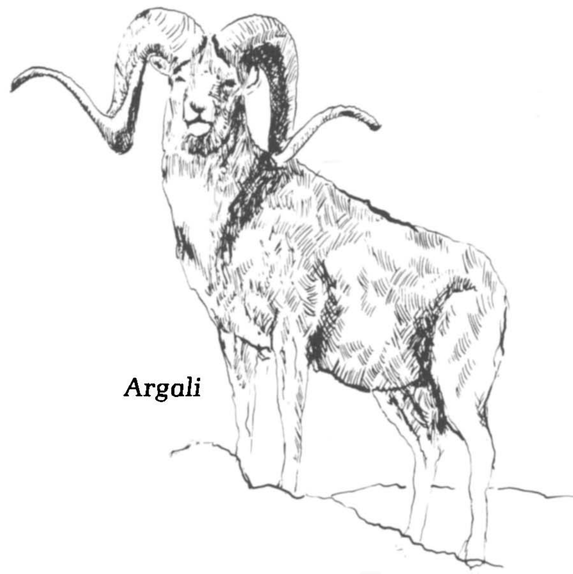
These North American wild sheep may be divided into four groups: the northern sheep (Dall and Stone); the Rocky Mountain sheep of Alberta, Montana, Wyoming, Utah, Idaho, Colorado and northern New Mexico; the California bighorn of Southern British Columbia, Oregon and northern California; and the desert sheep of Baja and northwestern Mexico, southern California, Nevada, Utah, Arizona, New Mexico and Texas. An additional subspecies, the Audubon sheep, is extinct. It was found along the rough breaks of the Missouri River on the eastern Montana plains into the Dakotas and was exterminated quickly by the early explorers, trappers, and settlers, as it was an easy source of food.

Except for the northern sheep of Alaska and Canada, North American sheep have faired poorly since the arrival of European man to the mountainous western America. They were highly prized as food by the explorers, trappers, and miners. Market hunters supplying the booming mining communities of the 1800's received premium prices for the sheep over deer and elk. The desert sheep were especially hard hit, as the mining settlements and livestock developments occupied the areas around the limited water sources. These sheep were especially vulnerable to meat hunters since the sheep had to come to the few water holes to drink, and the meat hunter just had to wait for them. In addition to the unregulated killings, the arrival of vast herds of horses, cattle and domestic sheep to the western mountain ranges created competition for food and caused drastic changes in the vegetation. Diseases of the domestic livestock were transmitted to the wild sheep, and high mortality resulted because the wild sheep had no natural immunities. As a result of this combination of factors, the wild sheep population in western North America was reduced to very low numbers by the early 1900's.

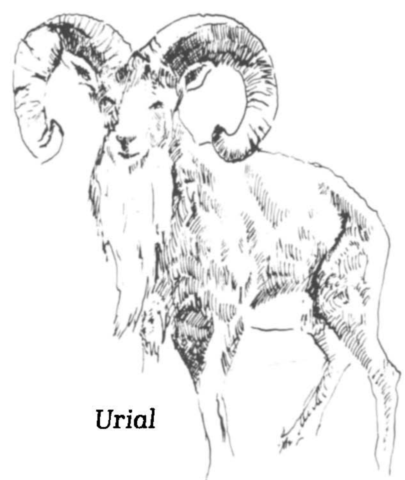
Wildlife conservation programs during the past 30 years have brought the wild sheep back in most of the former ranges where suitable, relatively undisturbed habitat still exists. These programs, financed mainly by sportsmen, involved imposing strict protection, restrictive hunting regulations, acquiring of critical habitat and reintroduction of animals to former habitats. The latter practice has been especially successful with the California and Rocky Mountain big horns. Excess wild animals from healthy, well-managed herds are trapped, then transported to unoccupied ancestral ranges and released. A high percentage of these releases have resulted in the successful establishment of wild sheep herds. Similar programs are now being undertaken with the desert sheep in Nevada, Arizona and New Mexico.

The future of the wild sheep in North America is promising. Both state and federal conservation agencies with the help of some active citizen conservation groups are continuing their programs for the conservation of these magnificent animals. Wild sheep can be seen in Canadian and U.S. Rocky Mountain national parks, especially in Glacier (Montana), Yellowstone (Montana and Wyoming), Rocky Mountain (Colorado), and Lava Beds National Monument (Oregon). Desert sheep can be found in the Grand Canyon National Park (Arizona) and in Death Valley (California) and Lake Mead National Monuments (Nevada); however, they occupy rough terrain and are not usually observed. Dall sheep can be seen in Alaska's Mount Whitney National Park. Other populations inhabit areas away from roads and are seldom seen except by hikers in the summer or during the winter when they are at lower elevation winter habitats.

Sheep may well have been one of the very first animals domesticated by man. Sheeplike remains and pieces of wool have been found in Stone Age caves in central Europe of the Neanderthal age (10,000-20,000 years ago). Sculptures of sheep were included in the earliest Egyptian monuments of 4000-5000 B.C. Thus the sheep have been with man for a long, long time supplying him with meat, skins, tallow and wool.



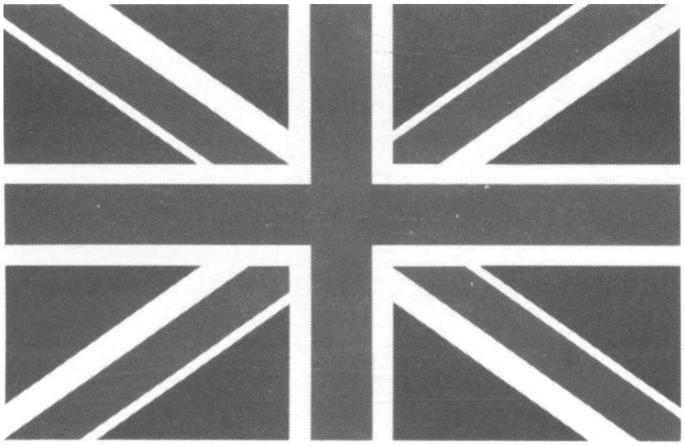
Argali



Urial

There are a number of theories regarding the origin of the domestic sheep. One is that a "fleece bearing" species from which the domestic breeds developed became extinct as a wild species. Another theory is that early domestic animals including the sheep, were tamed wild species kept for various religious purposes. One of the sheep types may have developed a fleece instead of the normal hair through mutation (genetic abnormality). The ancient people took advantage of these "odd ones" and through selective breeding developed the first domestic sheep, the ancestor of all present domestic breeds. Recent studies of sheep genetics (especially chromosome characteristics) have shown that the domestic sheep is most closely related to the wild sheep of Turkey and North Iran. Others may have been developed from the Mouflon of the Mediterranean Islands and Asia Minor. □

NATIVE BRITISH SHEEP:



THE RARE BREEDS

by Eliza Leadbeater

Often overlooked by handspinners are the wealth of native breeds of sheep found throughout Great Britain. There are over 50 native breeds established in this small, but diverse, geographical region and all are making a significant contribution to the production of meat and wool.

Fineness, length, crimp, soundness, evenness, lustre, handle, yield and color are all important qualities when selecting wool.

In these isles, there are a fair number of self-colored breeds which are increasingly attracting the attention of the handspinner at home and abroad. These colored British sheep, more widely known as primitive breeds, include the Soay, Shetland, Castlemilk Shetland, Manx Logthan, St. Kilda/Hebridean and well-known piebald, Jacob. In addition, there are the Herdwick and Black Welsh Mountain, which although not primitive breeds, are classed as rare breeds.

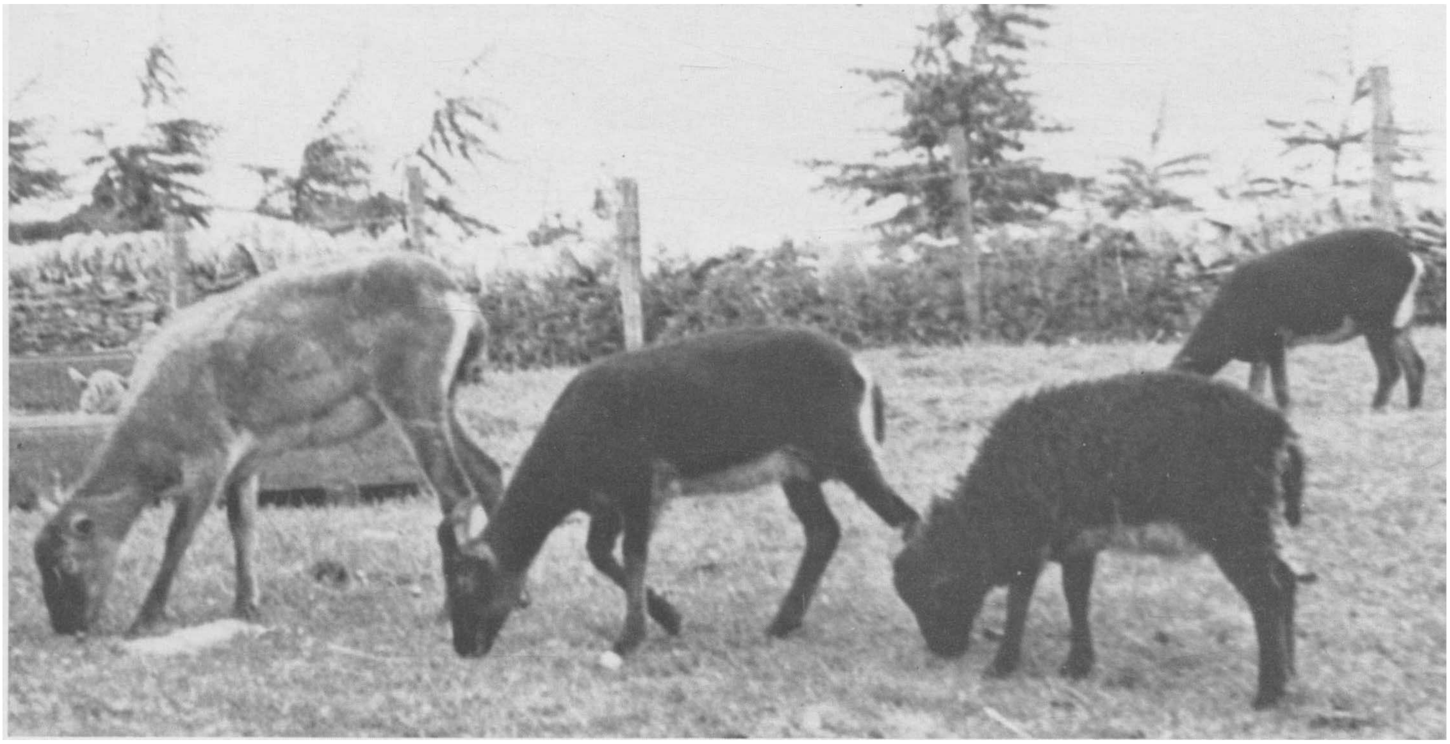
It is difficult to survey the naturally colored fleeces suitable for handspinning without some reference to the domestication of wild sheep. Researchers believe that the main domestic stock originated from the Near East and were introduced into Britain about 3000 B.C., the New Stone Age. It is recognized that there are changes that have occurred with domestication. Characteristically wild sheep have short tails and colored coats, the coats being a combination of coarse outer hair or kemp and a fine underwool, the whole being moult or shed during the early summer.

Archaeological findings of skeletal remains substantiate that the Soay, the earliest British breed, was established thousands of years before the Roman invasion. The Soay still shares the primitive features of wild sheep; its characteristic pattern of a white belly, rump and patches over the eyes point to its origin with the wild Mouflon of Corscia and Sardinia. It is this white belly or Mouflon pattern that classifies it as the most primitive of the breeds that now exist. The breed is native to the St. Kilda Islands (Outer Hebrides) off the coast of Scotland where a feral stock is still maintained.

Structurally a small breed, the Soay sheds only about two pounds of wool a year and for this reason it does not need shearing. The wool is collected by "rooing" or plucking it from the body. Both the color and quality of the wool varies. The majority of Soay are dark brown with distinctive white underbelly, rump and patches over the eyes; others are tan colored and there are instances of white and black strains. The fleece can be hairy with a coarse outer coat and a fine underwool, characteristic of its wild ancestor, or wooly similar to the medium wool breeds. The tan colored wool it attracting attention in handspinning circles, but is quite short stapled and requires a fair amount of preparation and teasing; and even then it is not easy to spin. The wool originally spun by the islanders was woven into coarse tweeds. The real interest in this breed is its long history or influence on later breeds.

The Roman invasion resulted in a cross between the by-now-native Soay with the white Roman breeds, leading to the production of such types as the Welsh Mountain and Cheviot. The Saxons and later the Vikings, who also occupied part of Britain, influenced and affected the breeds. The Herdwick, Shetland, and piebald Jacob have Scandinavian influence.

The Shetland does not require much introduction, for it is a breed even the non-textile person knows. The traditional knitwear and tweed trade of these northern islands was based on this small hardy sheep. True Shetland wool is not only soft, light and warm, but has the finest quality of any British breed. It is perplexing to know where the hundreds of thousand tons of yarn sold around the world under the label "Shetland Wool" are produced, for little of it represents the true quality of this beautiful fiber, nor could it be produced by the comparatively small number of the breed in existence. The average fleece weighs 2¼ to 2¾ pounds and, like the Soay, the Shetland have the tendency to shed their wool in which case the fleece is rooed; otherwise the animal is sheared. The increase of light in the spring influences the growth of hair which causes the wool to rise. The coat can then be removed by pulling or rooing which is often accomplished in stages. The fineness and softness are attractive features of a Shetland fleece, and the range of colors is absolutely unbeatable for anyone interested in natural colored wool. The range includes white, fawn-brown, red-brown, dark browns, grey and black. The shetland Isles lie as close to the mainland of Norway as they do to the British mainland, so these colors have native names derived from the Old Norse language. Grey or *sheala*, sometimes called



Soay sheep grazing at the Cotswold Farm park.

shale, is from the Old Norse *hela* or *hoar*, frost. *Moorit* is *morandi* or peat-brown. Colored marks in the wool are known as *fleckit* from the Old Norse *fleckotts*, and a *sneedled* from *snudr* or Old Norse *snout* means a white blaze.

Shetland wool does require extra preparation because it contains a great amount of sand, vegetation and flecks of dried perspiration, suint, and skin cells which have helped to raise or lift the coat. This beautiful wool is well worth the little bit of extra work. When rooed, the wool is not rolled in the traditional manner of sheared fleeces; but it can be easily shaken and laid to resemble an unrolled fleece, as the coat holds together. It appears matted on the under part, but not in the same sense as a fleece that has felted and should be avoided.

It is essential that the sand, vegetation and flecks be removed. Handspinners have the advantage over industry that they control the entire preparation through touch and sight, and so can bring out the best and finest characteristics of a fleece. Industry abuses the fibers by harsh scouring treatment, and the end products are not the same. Since the fleece is relatively small, it is easy to prepare the entire lot before spinning by first breaking it up staple by staple and then pulling out the dried flecks with the fingers. The tips and staples have a different color; fawn tips are found on red-brown staples or chocolate brown tips on white-gray staples. The preparation of the fibers for spinning will influence the final yarn produced. To incorporate the tip color in a variegated yarn, the staple can be either gently hackled down its length, or the tip and end of the lock teased open. Grit and bits of dirt can be dropped out by giving the lightly opened staple a good shake.

An alternative method of preparation which produces a more even colored yarn is to tease and open the staple fiber by fiber to release and drop out the grit. For an entire fleece this can take a couple of hours, but the end result is a lovely fluffy pile of fine soft wool which can be either spun from a handful or very quickly carded. Shetland can be spun either fine or thick, but the finished product is usually soft, light and strong. The strength comes from a coarse fiber in the wool which bears no resemblance to the coarse fibers handspinners know as kemp; it is almost as if this breed has its own type of wool fiber. This fine soft wool lends itself to knitwear, and the beautiful range of natural colors enhances its attraction. The staple length varies, but true fine wool averages 3" to 5" and should not be confused with the short staple that results from breeding the Shetland with Cheviot. This cross is also accepted as Shetland.

Another source of confusion is in the meaning of Moorit Shetland. This means not only a peat-brown color, but it has also become accepted as the name of another breed of sheep, the Castlemilk Shetland. The breed resembles a cross between the Soay and the orthodox Shetland, and the resulting wool is peat-brown in color and short stapled. The oil explorations off the northeast coast of Scotland have endangered the diet and survival of this extremely attractive primitive breed.

Like other spinners, I have my favorite breeds to spin, although the category is quite large and includes most of the primitive breeds and others such as the Kent Romney, Derbyshire Gritstone, Lincoln and Border Leicester. As small-holders, Chris and I keep a dozen or more ewes, and this too demonstrates some mixed likings. Our flock is predominately St. Kildas, a primitive sheep that produces a fine black fleece. The fleece is generally sheared and averages 2½ to 3 pounds. The staple length is 3" to 6". Although the fleece is black, as the animal ages the flanks take on either a white or silver sheen which adds to the attractiveness of this luster wool. It is a truly black fleece, and althouth not as fine in quality as the Shetland, it is finer than the Black Welsh Mountain which is our other all-black breed. The wool requires no special preparation and is easy to spin. It lends itself not only to knitwear, but to most woolen uses.

The Manx Loghtan is another relatively unknown primitive and colored breed. The word *loghtan* means light brown and the cominant color is a mouse or coffee brown. The fleeces which are shorn average 2 to 2½ pounds, and the wool is soft and has a semi-luster. The staple length averages 2½" to 3½". The fleece is handled like any other medium wool. Manx, although relatively rare, is obtainable.

In recent years much interest has been expressed by both hand and commercial spinners in the Jacob breed, a piebald or spotted sheep whose origin is obscure. The fleece, which has distinctive black or brown patches on a white background, can weigh from 2 to 5½ pounds. It is quite variable both in quality and coloration, some sheep having large patches of color which can be anything from a true black to chocolate brown. Others have much smaller patches with a wide range of coloring. Some wool has a semi-luster while other can be heavily kempy. The staple can also vary from 3" to 6". Because of this variation within the breed, selection must be made carefully with the end product in mind. Fleeces with kemp lend themselves to woven tweeds or floor coverings. The softer fleeces are ideal for knitwear or woven woollens. The wool can be prepared, handled and spun like any medium wool, but the first decision is how best to employ the color variation. Very small fleeces are easily teased and blended for uniformity in fiber and color, otherwise the wool may be spun direct from the fleece without any preparation and this results in the variegated yarn which has been extremely popular with Jacob spinners. Large fleeces that allow for several projects can be softed by color. There is a region around each patch where the colored and white fibers form a staple, and these make another classification. These mixed patches often provide enough wool for a project made from variegated handspun, although more wool can be blended to make up the necessary quantity. Because of the variation in quality, color and fleece size, the Jacob as a breed can be well adapted for a variety of projects and activities. If properly selected, it is a medium wool which provides an exciting first fleece with the advantage of several natural colors for the new spinster.

Two other breeds which do not fit into the primitive category, but are sought after because of their color, are the Herdwick and Black Welsh Mountain. The Herdwick is being widely promoted in Britain for knitwear, for which it is hardly suitable. The wool is extremely coarse and kempy and although hardwearing, is neither soft nor warm—surely essential criteria for knitwear. The spun wool has a tendency to shed its kemp, thus making the garment unsightly. It is best suited for rugs or coarse fabric where such a tendency is unimportant and even desirable. Lambs are born with a high proportion of brown-black, and with age, the color changes gradually through gray to white. Fleeces average 3 to 4¼ pounds. The staple can be 6". Preparation, spinning technique, and the actual use of the wool can only be determined by the degree of

Our Hebridean/St. Kilka ram.

Jacob ram (with the author).

Shetland lamb.

Crochet top from a variegated Jacob yarn. Spun and made by the author.

A comparison of staples: (top) St. Kilka, Jacob, Herdwick; Soay, Shetland, Castlemilk Shetland, Manx Loghtan.

coarseness and the handle of the individual fleece.

The Black Welsh Mountain is another colored breed that produces a black fleece with a brown cast. The fleece averages 2½ to 3 pounds. The staple is 3" to 4". It is the coarsest of the medium wool breeds. The wool can be variable and often kempy, particularly in the britch region; it is reasonably soft with hardwearing qualities and is suitable for a wide range of woollen goods where these characteristics are useful. Apart from sorting for any coarse or kempy fibers, the fleece responds to normal preparation.

We are fortunate that breeding of these primitive and colored breeds continues to thrive. This is due no doubt to the interest of estate farms and small-holders encouraged further by the handspinner and greatly supported by the research and backing of breed societies and the Rare Breed Survival Trust. The possibilities that these colored breeds offer are quite exciting. If natural colors and generally soft textures appeal, then these breeds will provide much scope and enjoyment. The rare breed fleeces are generally obtainable and offer no importation problems. If you are interested in spinning somthing different, something exciting—may I urge you to think British! ☐

These fleeces are available from most British wool suppliers and several North American outlets. If you have difficulty in securing wool, please feel free to contact me for the address of your nearest supplier or a U.K. source. My address: Whitegate, near Northwich, Cheshire, England.

Addresses of Breed Societies:

Black Welsh Mountain Sheep Breeder's Association, Brierley House, Summer Lane, Combs Down, Bath, Avon, England.

Herdwick Sheep Society, Glenholm, Penrith Road, Keswick, Cumbria, England.

Jacob Sheep Society, Morebread Farm, Peasmarsh, Rye, Sussex, England.

St. Kilday, Soay and Shetland are registered with the Countrywide Livestock Ltd., c/o The Ark, Winkleigh, Devon.

These are strictly breed societies and not wool merchants. They are restricted from selling wool or acting as merchants.

Visitors to the U.K. should not overlook our Rare Breed Centres where many of these breeds are on display along with breeds of cattle, goats, pigs, horses and poultry. The Rare Breed Survival Trust promotes the continued breeding of these endangered domestic stocks. Their research and program can be aided by membership in the Trust, which is open to any individual, organization or body concerned for their objectives. Monthly they publish a delightful magazine called *The Ark.* North American subscription rate for one year is 8 sterling, but if you send the equivalent in U.S. dollars plus about one dollar extra, that is, U.S. $17.00 this will be sufficient. Membership application should be made to The Secretary, The Rare Breeds Survival Trust Ltd., c/o Market Place, Haltwhistle, Northumberland, England. ☐

QUIVIUT

by Al Huestis

Among non-spinners in the north musk ox wool is usually referred to as the warmest, lightest natural fibre known to man. I suspect that there is a great deal of bluff and regional pride involved in that statement; doubtless our musk ox wool shares that claim with a dozen other fibres from around the world. In Alaska the wool is called *quiviut*, here in the east (Northwest Territories) it is called *kooneyook* and on the western arctic islands it probably carries a different name. The wool all comes from the same source; it is the soft under fur of the musk ox, a relative of the goat and the Tibetan yak. The color of the wool is usually a dark brown, although it occasionally varies through light browns to an off-white. Most adult musk oxen have a light "saddle" over the forequarters which provides the pale shades.

Musk oxen range throughout the north above the tree-line. The largest numbers are now situated on the Arctic islands, where hunting pressure has been lower. Their only natural enemies are wolves, although a small herd of oxen is a good match for a large pack of wolves. The animals are not dangerous to man when unmolested but will charge an intruder coming closer than about twenty feet.

Musk oxen feed on mosses, lichens and low vegetation, scraping through the snow in winter to forage. They generally move in small loose herds and do not wander very far from year to year. The wool is shed in the short arctic summer and will often be found in tufts on the tundra. It also lies loose among the guard hairs in a winter-killed animal and can be removed with a hairbrush or carding comb. Here in Grise Fiord, Northwest Territories, our wool comes from both sources; we harvest about twenty animals per year from Devon Island and Ellesmere Island and comb out the wool as a by-product, obtaining about five pounds per animal. People out on the land in summer keep a sharp eye peeled for loose wool and stuff it in a handy pocket. There are some farms in Alaska, Arctic Quebec, and to the south that breed musk oxen for research and meat; the wool is gathered from fields and fences and passed on to spinners and weavers. Traditionally, in the Eastern Arctic, the wool was not utilized extensively, although it was sometimes used as stuffing for small pillows or finger woven into yarn and thread as an idle pastime. The hides were used for tents and sleeping robes, but the main value of the musk ox was its delicious and tender meat.

Today the meat is still the principal attraction of the musk oxen in our town, although the hides are occasionally sold as trophy rugs. The *kooneyook* is distributed far and wide, gaining new friends constantly, as it consistently spins up into a delicate yet durable yarn, a pleasure to work with. □

The author represents the Grise Fiord Eskimo Co-op, which markets *quiviut* (see supplier's directory for address).

THE HANDSPINNING PROJECT

by Carolyn Keefe

One day I was grumbling more than usual about my job as a grocery store clerk. Lee Carlin, to whom I was complaining (and with whom I had a spinning apprenticeship) asked, "How would you like to teach people to spin?" She then told me about her growing need for more spinners, and about her thoughts on how to provide funds for me to train spinners to work as sub-contractors for her business, The L.J. Carlin Company. I listened attentively, and nodded enthusiastically, but in general my reaction was a "polite" one; after all, who was I to interfere with another person's dream?

That exchange occurred in early January 1978; eight months later I was introducing myself as "the instructor" to the first of my students in the Handspinning Project.

From the beginning, the purpose of the Handspinning Project was clear-cut and straightforward: to train five to ten people to use spinning machines to spin wool yarn with a specified twist factor and yarn count number at a rate of at least 500 yards per hour. It was actualizing this goal that took time, energy, and an infinite amount of patience.

The first problem that presented itself was who to train, or, to put it another way, who would want to be trained. In fact, the more we thought about it, the more the problem turned into a many-faceted one. Think about it. Most people who learn to spin do not do so because they are "drafted" into it. People learn to spin for "romantic" reasons, because they envision themselves as modern-day Arachnes, or for "rational" reasons, their interest in spinning a logical extension of their interest in fibers. Some people learn to spin because they want greater control over the kind and quality of yarn they use, some because they cannot afford yarn at today's prices, some out of a desire to go back-to-basics, to master the skills practiced with ease by our ancestors. No one wants to learn to spin because they expect to get rich; those who do want to learn to spin tend not to want to spin to another's specifications.

Such musings led us to consider what attributes distinguish spinners from other artisans. Spinning is a highly skilled craft; one must be able to manipulate small fibers artfully, and to make modifications based on acute observations. Therefore, not only must spinners be manually dexterous and have good eye-hand coordination, but they must be able to concentrate. The attribute of concentration seemed particularly important in our instance because our spinners would be learning to spin to someone else's specifications. And although we knew that it was difficult for experienced spinners to spin for, say, eight hours straight, due to the nature of the project our novice spinners would have to possess the stamina to work in bursts of two to three hours and possibly longer. In addition, our spinners must be willing to work with a machine, not an aesthetically appealing wheel, and they must, in the long run, be disciplined enough to work in their homes, without supervision. Because we wanted uniquely dedicated and motivated individuals, we began to wonder if we were looking—and asking—for the impossible.

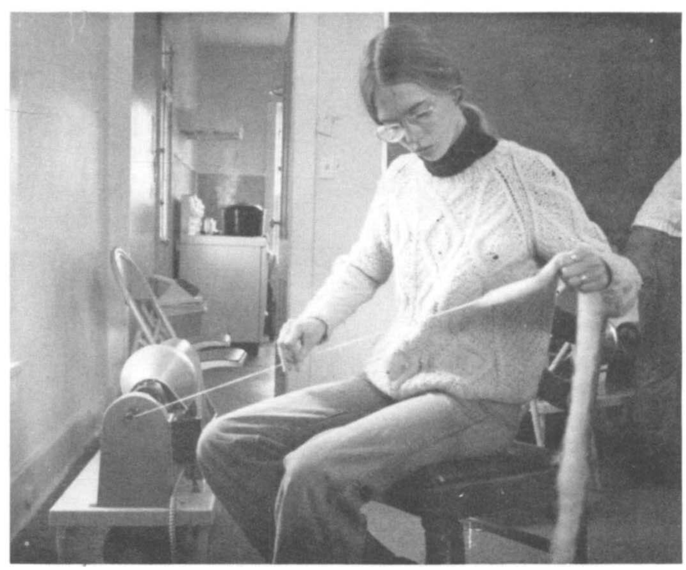
The Handspinning Project began on August 7, 1978. The clients were volunteers recruited by the local CETA office; there were ten women and two men, and they ranged in age from late-teens to early sixties. The classes, held in the small house rented from the YWCA, met six hours a day, five days a week. There were two sessions: Session One was six weeks long; Session Two was eight weeks long. In addition to the instruction and supervision I offered, the clients were shown an excellent film produced exclusively for the American Wool Council (*From Fiber to Fabric . . . Wool's A Natural*), and were given instruction on tax preparation for sub-contractors from a certified CPA. The clients were paid minimum wage for their on-the-job training; I was paid a competitive wage for my job as handspinning instructor.

The general course outline for the Handspinning Project was as follows:

1. Introduction: The L.J. Carlin Co.
2. Wool
   a. Fiber Characteristics
   b. Yarn Characteristics
3. Spinning Machines
   a. Use
   b. Maintenance
4. Fiber Preparation
5. Spinning
   a. How to Make a Yarn
      (1) Drafting
      (2) Inserting Twist
      (3) Feeding In
   b. Splicing ("Piecing-up")
   c. Refinement
      (1) Eliminating Slubs and Weak Spots
      (2) Eliminating Overtwist
      (3) Controlling Diameter and Twist
      (4) Increasing Speed
6. Conditioning Yarn
7. Skeining Yarn
8. Self-Employment

The wool top we used was medium staple length 58s. The wool was prepared by dividing 100 gram lengths into four equal lengths; once spun, it was conditioned by steaming it, on-the-tube, for 15 to 20 minutes; finally, the yarn was skeined (and measured) on an industrial laboratory-size yarn reel.

The students learned to spin using the hand positions illustrated in *Handspinning, Art and Technique*



Participants in "The Handspinning Project".

by Allen Fannin (pp. 145, 148, 149). The greatest individual differences in learning tended to appear not in the "How to Make a Yarn" and "Splicing" stages, but in the "Refinement" stages. Learning the long draw provides a good example. One spinner approached mastery of this technique by pretending he was playing the violin—the effect of which was to produce a yarn tight as a string on his invisible instrument. Another spinner fell so in love with the long draw that, when her arms extended rhythmically to their limits, I expected her to fly away—as her yarn frequently did. At the other extreme, for more than two weeks one spinner accomplished the long draw only when I acted like a cheerleader: "Get your hands further apart! More! More! G-o-o-o-d! Now again!..."

Another problem that presented itself was in relation to the spinning machines; specifically, where to get enough of them. Lee had two, one she owned, one on loan from a spinner who lives in California. With an anticipated need for at least five spinners, each of whom would work out of his or her home, two spinning machines just wouldn't suffice. Therefore, the disbanding of the Shelburne Spinners in January, 1978, was timely; for they had three machines (purchased around 1975 from Allen Fannin) and, since none of their members wanted one, were willing to sell them to Lee. Lee accepted the offer and in April three spinning machines arrived on her doorstep. Now the project seemed much more viable, especially after the machines received the tender loving care they were in need of: they were disassembled and each part was cleaned, pulleys and belts were replaced, motors were reworked, the speed control mechanisms were rewired so one could learn at a slow speed, guards were installed for safety purposes, and, finally, they were given new coats of paint.

A third problem was where to train the spinners. Lee's home had long since run out of spare room, my home was a rented room (with barely enough space for my own spinning wheel), and no anonymous benefactors came to our rescue. Lee spent countless hours contacting persons whose organizations and/or businesses might let space on a short-term low-rent basis. Finally she found what she thought would be the perfect place: a small house adjacent to and owned by the local YWCA which they used, when necessary, for their adult education classes. They were willing to rent the main floor (which included a kitchen) for a nominal fee.

But the biggest problem of all was funding. Again, Lee spent innumerable hours researching grants, the what's, why's, and wherefore's, thus eventually narrowing the range of possibilities. She then spoke with representatives of organizations which held promise of financial support. For example, she contacted individuals at Denver's Center on Deafness; for we thought that perhaps deaf individuals (who seemed to us to possess many of the characteristics, as spinners, we needed) might be interested in participating in the project. It was while pursuing the possibilities of working with the deaf (this eventually proved to be untenable) that contact was established with officials of the State Board for Community Colleges and Occupational Education, CETA Division, the organization which became our sponsor.

CETA's sponsorship was appropriate because the project was designed to create jobs—but their sponsorship was not automatic. The proposal writing (and rewriting . . . and rewriting . . .) consumed many more hours of work and, once it was submitted, had to be evaluated at different echelons of the agency's hierarchy. As long as one month would pass for each such evaluation, and, given the scrutiny with which the proposal was considered, we were never certain from one day to the next that it would be accepted. In fact, when the final "okay" came in, when the official papers were signed, I still did not "believe"—and knew I would not until I was standing before the class on the first day of training.

Our combined efforts were not in vain. Of the twelve individuals who participated in the project, eight completed training, and seven contracted as handspinners with the L.J. Carlin Company. Two of these eventually cancelled their contractual obligations, leaving five spinners, one for each machine.

The Handspinning Project, begun as a dream, evolved into an intensely real drama, one which involved many people on a very personal as well as a highly professional level. But just as the project did not begin on the first day of class, it did not end on the last. In fact even now, more than half-a-year after the keys to the YWCA's house were returned, Lee and I are still discovering what *we* learned, both about the spinners in the project, and about spinners in general.

In relation to our spinners, we learned that they had to be, and in general were, more dedicated and more motivated than we first thought necessary. Not the least important example of this was that they had to have complete faith in me as their instructor, to trust my judgment and to cooperate with my suggestions, because to succeed within the parameters of the project, they had to sacrifice all temptations to "do their own thing," no small request of any human being in any situation. Such a sacrifice was necessary to meet the requirement of speed, a requirement many of them resisted, for if they could not make the yarn specified at a rate of 500 yards per hour, the project simply was not economically feasible. Such a sacrifice was also necessary to make the yarn specified; with one exception, each spinner was making yarn on the first day of training. However, to make yarn with a specified twist factor and yarn count number took not only concentration, but a great deal of control and discipline. Finally, because their learning was intense, occurring in a comparatively brief time span, our spinners had to confront their own and each other's frustrations at every step of the way, and to endure plateaus beyond which they believed they would never move. They also shared the enjoyment of special satisfactions, with what we all came to recognize as being remarkably significant achievements.

Awareness of the "significant achievements" of our spinners made Lee and me aware of—and continually respect—the significant achievements of all spinners. We have mastered an ancient and skilled craft, yes, but how much more than a craft it is, how much more it requires than nimble fingers and keen vision. "You know," one spinner said to me, "sometimes I think spinning is just like life . . ." Sometimes, I think so, too. □

GUILDS FOR SPINNERS

by Erica Rowe

The number and kind of benefits to spinners who organize into guilds is truly impressive. Alone, a spinner is isolated. New shops, new techniques, new books, and workshops can easily pass her by. Associated with a guild, a spinner is in touch with the main pulse of the textile world.

Whether it is due to the nostalgia of the Bicentennial Year, or the revival of the do-it-yourself movement, hand-spinning is becoming more popular. Likewise, the number of guilds is increasing. In order to preserve and perpetuate the art of handspinning, guilds provide their members with instruction, which ranges from beginning spinning to work with special fibers like silk and flax. Often a guild library furnishes more books and magazines related to spinning, dyeing, and weaving than most individuals could afford to own. A monthly newsletter put out by some ambitious member keeps other spinners informed about meetings, workshops, and other textile related news. Encouragement with projects, a chance to show off their work, and a thriving social life for spinners, are not the least of the extra benefits to guild members.

In addition to providing benefits for members, spinning guilds also serve their communities. Nearly all guilds provide demonstrations, lectures, and displays to help educate the public about the art of handspinning. These services can vary from one individual demonstrating to a class of third graders, to elaborate "sheep to shawl" demonstrations at county fairs. Many spinners find it great fun to get out and spin, show off, answer questions, and visit with their friends. Occasionally there are problems when attention to parking arrangements, entrance fees, travelling cost, and meals are neglected by the organization requesting the demonstrations. That is no fun at all. Many guilds have a demonstration policy to help insure that volunteers are properly provided for, or that out-of-pocket expenses are paid by the requesting group. Some guilds even ask that a set fee per hour be paid to the demonstrating spinner.

Workshops and demonstrations, libraries and newsletters, regular meetings and special events—all are part of the activities of guilds. However, each guild is a unique group, with different ideas, methods of organization, programs, and interests. A spotlight on four guilds from central New York State will give insights into their specific activities, functions, and organization.

CHERRY VALLEY SPINNERS

The Cherry Valley Spinners take an informal attitude toward guild organization. They have no formal purpose, according to Doloria Chapin, and the only requirement for membership is an interest in handspinning. Members do not like to spend a lot of time haggling over business concerns, so they allow their elected officers to handle nearly all the business matters.

The whole group must find it enjoyable because in only four short years, the Cherry Valley Spinners have grown from ten to 65 members. "What's more," says Jean Conover, "almost all of the members attend most of the meetings." The guild meets once a month and the business meeting is limited to ten minutes. Members bring a sack lunch, with coffee and tea provided by the guild, and cookies brought by volunteers. Show and tell, a program, and sheer fun with spinning take up the remainder of the day. Many of their programs, such as ones on different types of wheels, wheels and tensioning, washing and carding of wool, are useful and practical. Others cover broader topics like flax growing and processing, and fiber blends. Dye workshops are a favorite, with the mordanting done at one meeting, and dyeing the next. Occasionally they sponsor field trips to places of interest like the Cornell Sheep Barns.

Each year the Cherry Valley Spinners celebrate Rock Day. "Rock Day gets its name from a German word which means 'to spin,' " explains Doloria Chapin. Traditionally, this is the day on which spinners return to work after the Christmas holidays. "We make it into a party," says Jean Conover, "with a potluck dinner and games. One game we play is to see who can spin an ounce of fiber the fastest, or the longest. Then we hand out prizes like bags of mordants, or dyestuffs."

A month-long art show gives Cherry Valley members a chance to exhibit and sell their work. "We have a lot of nice things and display them attractively," says Jean Conover, who hosts the sale in her barn. The show gets off to a flying start with a large visitors' party, usually the Fourth of July weekend. Jean estimates that 500-600 people visit the show, which is free, each year. "We sell quite a bit," she says, "mostly yarns, placemats, and pillows. Usually the larger items don't sell so well."

A monthly newsletter informs guild members about the next month's meeting, and a few other important items as they come up. Like their business meeting, the newsletter is kept short and simple on purpose. They just want to have more time for spinning.

THISTLEDOWN HANDSPINNERS GUILD

Active membership in the Thistledown Handspinners Guild requires a lot of participation. In addition to annual dues, an active member must attend a certain number of meetings, give a public demonstration, and complete one handspun project each year. She is also expected to have a workable knowledge of the basics of handspinning. Other membership categories are available for those persons interested in the guild and their purposes, but who cannot fulfill the requirements for active membership. Family, inactive, student, and associate memberships are some examples. Honorary memberships are given by the guild to persons who have been beneficial to the guild or to the art of handspinning.

The Thistledown Handspinners meet every month at the Chenango County Museum, according to member Roberta Miglin. "Meeting days alternate between Thursdays and Saturdays so that working spinners can come too," she says. A business meeting, show and tell, a program, and of course, lots of spinning and visiting, are part of every meeting.

Most of the programs are prepared and given by a guild member with expertise in a particular area. "Thistledown's programs for this past year were: the soda ash method for scouring a fleece, color blending and fleece pictures, finger weaving, spinning wool from a distaff, spinning on the great wheel, and sprang and bobbin lace," reports Roberta.

The monthly newsletter of the Thistledown Handspinners Guild is packed with information and interesting notes. Reports on previous meetings, and plans for upcoming ones are only part of it. Other items of interest, such as book reviews, the evaluation of a new shop, or a recipe for lamb, regularly find their way into the newsletter, as well as information on workshops, seminars, county and state fairs, and the activities of other guilds.

In addition to the 12 regular meetings, the Thistledown guild puts on a number of annual events, including the traditional Rock Day. A Wool Day is held each summer at a local state park to demonstrate the "sheep to shawl" process to the public. There is also an annual beginner's workshop, which is generally held in the fall, or whenever it is needed. Their biggest endeavor is a two day spinning seminar held each fall.

photos by Vinee Rowe

Grace Buckbee of the Thistledown Handspinners Guild explains about the warp and weft to Wool Day visitors.

Planning begins in early spring for the Thistledown Seminar, with all the area guilds invited to participate. Each year the program features a different fiber, although wool is always a "regular". This year's fiber is rayon, and one session at the seminar will be devoted to the techniques for spinning with rayon.

Spinners attending the seminar have a chance to show off their own projects, and see what others have been doing, at the fashion show. Another regular event at the seminar is an evening trouble-shooting session. A special effort is made to encourage business people to attend the seminar and to bring along their wares. This provides an excellent opportunity for spinners to see and compare, in one location, all sorts of equipment and fibers.

BLACK SHEEP HANDSPINNERS GUILD

The Black Sheep Handspinners Guild had its beginnings about five years ago, according to Kay Ross, one of the original members. Spinners in the Ithaca, New York, area began by meeting in each others' homes for a day of spinning. Soon there were more than a dozen persons in the group. "It became obvious that more organization and a larger meeting place was necessary," explains Kay. A constitution was written, officers elected, and the meetings were moved to the Clinton House, an old hotel which was being renovated

Spindle spinning by a Thistledown Handspinners.

by a local historical society. One of the first things the new guild did was bring in Edna Blackburn for a three day spinning and dyeing workshop. "It was a heavy financial burden to take on," says Kay, "but there was good attendance and it all worked out well."

Presently the Black Sheep Handspinners have two monthly meetings. The regular meeting is held on Mondays from 10:00 a.m. to 4:00 p.m. at the Youth Bureau Building. Affectionately known as the Tin Can, due to its peculiar construction, the community building is available free of charge to the guild. A special Saturday group was formed about two years ago to accommodate working members who could not attend the daytime Monday meetings. The Saturday group has been meeting at a local elementary school during the past winter. Summer meetings for both groups are often held at a member's home, outside, to take advantage of the beautiful summer weather.

The membership qualifications for the Black Sheep Handspinners Guild are very similar to those of the Thistledown guild. The strict requirements for active membership are not to exclude people from membership, by any means, Kay Ross points out. "We wanted to try to define what an active member was, give people goals to work toward, and encourage participation."

The vice-president of the guild is in charge of planning programs for the Monday meetings. Japanese braiding, winter dyepots (like onion skins, spruce cones, nut hulls, and barks), improving your spinning,

Sue Price (right) of the Black Sheep Handspinners Guild explains how to spin on Wool Day.

production spinning, and spinning with silk are some of the programs presented recently at Monday meetings. There is also a handspun ornament exchange at Christmas time.

A recent venture was a dyeing workshop with Fred Gerber. One of the big advantages of guilds is that they

One of the big advantages of guilds is that they can bring in experts. A recent venture was a dyeing workshop with Fred Berger. "At a workshop, a guild member may be able to get for $25 or $35 the information and training which would cost several hundred dollars for an individual to obtain," explains Kay Ross. "Another way to cut the expense of an expert is to try to get someone when they are already in your area for some other program."

The Saturday group is more informal and prefers its meetings that way. "We don't like to waste a lot of time fussing over business," says Eleanor May. Although there is always show and tell, many meetings do not have a formal program. They are not entirely without programs, however. Weaving on an inkle loom by Eileen Oldham, spinning with flax, and dye-pot-to-pass programs have been very successful.

The Black Sheep Handspinners Guild has some larger annual events. Rock Day is held in January, and a Wool Day in early summer. An unusually interesting part of Wool Day is a "Try It Yourself Corner" where adults and children can try spinning on drop spindles and Ashford wheels. The summer lamb barbeque is always fun, with everyone bringing a dish to pass, and the guild supplying the lamb. This year they will try to

Spinning on the great wheel at the Black Sheep Handspinners Wool Day.

get a program on Greek spinning to compliment the meal. An end of the year program is the Grand Show, which gives spinners the opportunity to have their projects evaluated by an expert from outside the guild. The handspun projects are displayed on tables and discussed by a "judge". "If that sounds frightening," says Jean Warholic, "it's *not*—it is *fun* and a good chance to get helpful criticism, hints for finishing techniques, uses of fibers, and just plain ideas!"

In addition to maintaining a large library of books and periodicals, and issuing an ample monthly newsletter, the guild serves its members by owning and renting out a carding machine and an Ashford wheel.

MOHAWK VALLEY GUILD

The Mohawk Valley Guild is relatively small, but in spite of the financial and organizational problems of getting started, they are really accomplishing a lot. Their monthly meetings are held in members' homes to hold down on expenses. They have show and tell, and try to have a program at every meeting. Originally a spinning guild, Mohawk Valley has broadened their scope to include all the textile arts, according to member Lynne Moonen.

Madeline Adkins belonged to a small guild, which has since disbanded. She points out that gas shortages and other transportation problems will make smaller and more local guilds increasingly valuable to spinners. One way to help new guilds get started is to do as Roberta Miglin does. She maintains membership in two guilds. In this way, a spinner can keep in touch with her craft through the larger, more established guild, while trying to get the younger one going.

However they happen to start, or come to be maintained, it seems clear that the opportunities to learn and grow in spinning can be considerably widened by the association with a guild. It appears that more and more spinners are willing to pay the small price of organization for the tremendous benefits they reap. ☐

WOOLWORTH:

EXPERIMENTS IN SPINNING

by Marilyn Lorance

The clock strikes 8:30 and the doorbell rings. One by one eight of us gather, arms laden with fibers and spinning wheels. There is a general air of excitement and anticipation. "Hello's" are exchanged as we arrange ourselves in a circle about the room. Woolworth is about to begin.

The leader for the day calls the meeting to order and asks to have the "discipline" reports. Eagerly each one, in turn around the room, opens her basket or box and for 15 minutes shows and explains the work she has been doing. A lively exchange always takes place. The leader takes the reins again and offers the lesson, which is usually background for the discipline. Thoughtful expressions can be seen as each one takes down the activity to work on for next time. The clock strikes—"Can it be 11:00 o'clock already?" Some leave and some stay, but the excitement continues. We are learning about our craft and about ourselves.

Woolworth is not the usual spinning get-together. It is a group of spinners willing to give their time and attention to achieving excellence in hand-spinning through discipline and focus. The disciplines are problems we define for ourselves to help us stretch our imaginations and our skill as we direct our efforts toward becoming better spinners.

Our group began when several of us felt the need to begin exploring spinning in a deeper, more organized way. We did not want a social time, although group camaraderie would be important. We did not want a teacher-pupil situation, that would take from some to give to others, because we felt that everyone would have something to contribute as she became more aware of what she was doing. We wanted an electrified atmosphere of sharing; a time to learn from others equally committed to learning and expressing the highest form of the craft possible.

We found seven spinners that agreed to commit themselves to two meetings a month and to work with the disciplines so we could share the insights and results of what we learned. We agreed to impose three limitations on ourselves and on our group, in hopes that the limitations would free us to learn more. First, we decided to keep the number of members to the size that could easily participate in one conversation (seven or eight). Then we decided to focus on hand-spinning with the ideal of expressing excellence. And thirdly, we agreed to limit the fiber to wool. We all felt this would help us grow in ways that non-focused sharing had not. In our guild there were already three meetings a month devoted to that kind of activity.

After six months of Woolworth we found we had indeed improved our spinning ability. We had learned a valuable amount about wool, *but* we had all learned most about ourselves. We learned that posture, attitude, environment, and the intent of the spinner influences the degree of excellence achieved in the threads produced. The way in which we addressed our equipment and thought about the wool all made a difference. How we were relating to our families, and our own expectations of ourselves and our craft, were directly reflected in the thread. We found that each tool, each type of wool, and each spinner, had qualities that needed consideration in the processes of production. Our findings were that the more attuned the spinner is to the needs and qualities of the fiber, the more centered we remained. The more centered we were, the greater the amount of production and the better the quality of thread. We realized that through non-attunement, we had been forcing the wool, ourselves, and our tools to perform in ways they were not intended to perform. As we became aware of each limitation of fiber, tool, or spinner we were freed to accomplish a greater degree of excellence within that limitation. It was a startling discovery!

The method we used to come to these realizations is not at all complicated. It takes work and discipline. We chose to focus on one aspect of spinning at a time, and determined to learn through that focus as much about ourselves and our work as we could. We wanted to become aware of things we had forgotten, to discover habits of posture or fiber treatment so these re-awarenesses could be evaluated and changed if necessary.

We started by examining washing procedures: DISCIPLINE: "Take a pound of wool and wash it, weigh it after washing and report how you liked the results of your method and such things as time required, equipment used, or other interesting information." In the discussion that week we looked at our scoured wool. There were five different breeds of sheep represented. That gave us a good view of fiber texture. We learned *not all wool likes the same treatment*. Some needed cold water treatment, then hot, to prevent matting; some needed to be half-washed, leaving some oil in for spinning; some needed soaking, and so on. We were beginning to learn to view the fibers as having individual needs, and learning valuable specific information about handling a variety of fleece.

We examined our relationship to our wheels. DISCIPLINE: "This time, as you spin, watch how you feel. Note any stored tension or stress and see if changing something about your posture, wheel, environment or other condition would make a difference." We discovered that each of us addressed our wheel differently. The differences were in attitude as well as physical approach. We became aware of the toe-and-heel-weighted treadles and their effects on spinner and product. We observed the heights of chairs and various postures we used for spinning. Our threads were also affected by environmental conditions such as TV, music, or company. One of us was able to alleviate a back pain, always thought to be "just a part of spinning", by changing his posture. As we awakened to our own individuality and how it expresses in the spinning process, we also became more aware of the individualities of our equipment and this allowed us to choose the right tool for achieving specified effects in our threads.

We examined our relationship to production. One of our members related a story about her grandmother who could sew so fast it was hard to see the needle. One day after watching her grandmother sew, she asked her mother, "how is grandma able to go so fast?" Her mother answered her, "all you have to do is pay attention to where you put the needle, the rest will take care of itself." DISCIPLINE: "To see where we could 'put the needle' to increase production in spinning without losing quality." As might be expected it was quite different for each of us. For one it was in fiber preparation, for another concentration, for another stretching to achieve and pushing to new limits. And we all realized that there is *no substitute for practice.*

We worked diligently with many other disciplines, concentrating on consistency in spinning, in creating textured threads and using materials we might otherwise have discarded. One of our most revealing disciplines was to spin to a purpose, choosing appropriate wool fiber, thread construction and equipment to produce a thread consistent with that purpose. Learning from the inspiration of other cultures, by examining excellence through the quality of timelessness and what effects the hurried pace of our culture has on our lives and threads, provided another dimension to our search for excellence through better spinning.

After nine months we re-evaluated our efforts. One of us felt she had been "spinning her wheels" but not accomplishing toward any project. Another felt the time was being spent in repeating material she had already learned, and both chose to spend their time in other pursuits. As situations changed, the depth of commitment to Woolworth deepened for many and they continued because it had become such a valuable source of specialized knowledge and inspiration.

One spinner commented that what had been most helpful to her was the ability to focus and learn that focusing freed creativity rather than stifled it. She found she no longer let "happy accidents go by the board", but asked "Now why did that happen, and what can I learn from it?"

We talked about what we wanted to achieve in this group and the answers ranged from "I want to acquire the knowledge that will free me to create through spinning, consistent with the highest degree of excellence possible in this craft," to a simple "I want to learn to spin better." By sharing goals we could share experiences and directions of focus in more meaningful ways.

Having limited ourselves for a year to the focus of achieving excellence in spinning with wool as the medium, we have now gone a step further. At the fall organizational meeting we each chose a fiber and/or direction in spinning we wanted to explore from the Woolworth base. The eight of us have chosen exciting projects; we have four cotton studies, one flax, one silk, one emphasis on wool spun for weaving, and one on spinning and respinning manmade fibers for weaving. Our disciplines are our own, and the sharing time is so very exciting as we go on to explore ourselves with fiber and wheel.

Even though our approach this year is somewhat different, we all agreed that the willingness to focus on spinning through one fiber had helped us get beyond wool to learn more about how we work with our materials. One of the things that made us better spinners was that we became better acquainted with ourselves along the way.

We welcome you to try a Woolworth of your own. And here is how to do it.

1. Find seven or eight spinners willing to work together.
2. Choose a time all can meet together, with meetings to be spaced not too far apart. (Every other week worked well for us.)
3. Don't make the meeting too long. Two to two and a half hours works well.
4. Choose one fiber to concentrate on.
5. Leadership proceeds on a rotating basis. You can draw numbers or ask for volunteers. The important thing is everyone gets a turn. The leader is responsible for keeping the meeting on the track, giving the lesson and making up the discipline activity for the group to work on for the coming time. Make sure everyone gets a chance to share her work.
6. Have a regular place to meet. Things proceed faster and better if your group is not always getting used to new surroundings.
7. Keep refreshments to a bare minimum. Concentrate on the business at hand; discipline sharing, lesson, and new discipline activity.
8. Ask each member to make a commitment to themselves and to the group to attend regularly and to work on the discipline activity. □

CARDERS: HAND OR DRUM?

by Bette Hochberg

In the Middle Ages people were sometimes tortured by having wool cards raked over their bare backs. Thus the dictionary gives us another meaning for the word "card": to torture. Many handspinners who consider carding to be agonizingly tedious would agree with that definition. So let us see if we can understand and use our equipment to make carding easier.

The purpose of carding is to brush fibers until they are disentangled, and lay more or less parallel to each other. Carding is also used to blend colors or different types of fibers.

Card clothing

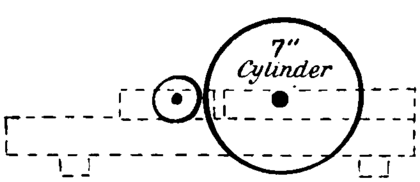
Whether we are looking at small hand cards, a drum carder or a giant mill machine, all carding equipment has one thing in common: the actual carding is accomplished by rows of wire teeth set into a backing, called "card clothing" or "carding cloth". The backing on hand cards and drum carders can be made of leather, heavy canvas, rubber or vinyl laminated to canvas. The teeth can be coarse, medium or fine. Grading is determined by the size of the teeth, the pattern in which they are set, and the number of teeth per inch. Card clothing with fine wire teeth has more teeth set closer together than coarse card clothing.

When carding equipment has coarse teeth, it should be used for the first carding or "breaking-up" of teased wool, for thicker fibers, or where only a light carding is necessary. Equipment with fine teeth should be used for very carefully teased wools, finer fibers, and the final stage of carding.

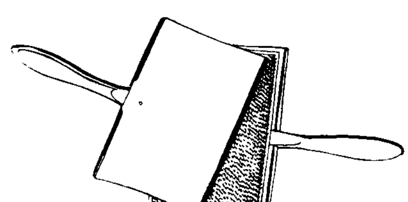
Comparing hand cards and drum carders.

Handspinners are often disappointed by their carding when they compare it with the mill-carded fibers available in spinning stores. The huge mill carders pass the fibers over a serrated metal blade, then over big cylinders with coarse teeth. Then doffer cylinders remove the fibers, angle them, and pass them on through many more carding cylinders and doffers, each covered with increasingly fine carding cloth. So the mill-carded fibers look quite perfect because their equipment is ideal. Fibers have passed over a long line of carding cylinders, each producing a finer degree of carding.

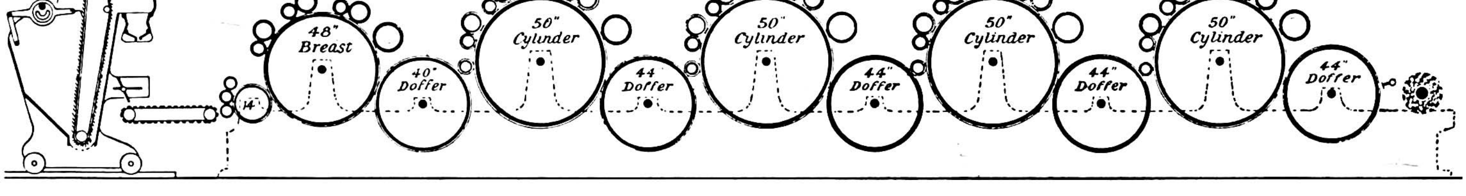
If we compare the diagrams of the mill carder and the drum carder, we can readily see how great the difference is. It would be an optimistic person indeed who would expect similar results from the two machines. The drum carder consists of one small feeder roller and one large carding cylinder. These can be fitted with coarse, medium or fine card clothing. (Sometimes drum carders are offered with the option of purchasing additional drums with varied card clothing. But changing drums is not quick and



Cross section diagram of mill carder, showing the many cylinders used to achieve excellent results.



Hand cards.



Cross section diagram of drum carder, showing two cylinder action.

easy.) A drive belt encircles the pulleys on both cylinders, so when the hand crank is turned, the cylinders turn at different speeds.

Spinners who are thinking of owning a drum carder sometimes say, "You just feed in the fiber, turn the crank, and out comes a beautiful batt of wool!" Unfortunately this is not true. A drum carder is not going to make carding that easy. It would be helpful to try this experiment: put wool on one of your hand cards and brush it a couple of times with the other card. The surface of the wool should already looked brushed. But now lift the wool from the card and turn it over. You will see that the underside was not carded well. (This is why we transfer fiber from one hand card to the other.) If you run your wool through a drum carder only once, this is probably how it will look. So, to do even a basic carding, the batt of wool should be removed from the drum carder, turned over, and run through again.

For spinners who hope to speed the carding process, the quantity of fiber which can be carded at one time is very important. This depends on the size of the carding surface; the average drum carder can hold six times as much fiber as the average hand cards. This represents a considerable savings of time, and when time is an important consideration, it would be wise to get the largest size carder available.

Drum carders can handle long staple fibers if they are carefully fed in. When using hand cards, long staple fibers are difficult to control, because they tend to drift over the top and bottom edges of the cards. (Lightly oil the fiber to remove static.) On a drum carder, they neatly wrap around the large cylinder. Any fiber with a staple of more than 5" is easier to card and remove when done on a drum carder. However, staples longer than the circumference of the small cylinder should be watched carefully so they do not wind around the small cylinder.

It is easier to use a drum carder for blending. Making a consistently even blend is greatly influenced by the number of fibers being carded in one lot. A drum carder is certainly the most effective tool handspinners have for blending different types of fiber and different colors together.

Suggestions for using drum carders.

A drum carder should always be adjusted so the small feeder roller and the large carding cylinder are parallel. How close the cylinders are set together determines how thorough the carding will be. The cylinders should never set more than 1/16" apart, even for coarse card clothing when doing very coarse fibers, or fibers that are not well teased. For fine card clothing being used for fine, well-separated fibers, the cylinders can be set so the teeth just barely clear. The cylinders are too close if the teeth make a "ping" sound when the crank is turned. To check my drum carder fine setting, I slip a sheet of typing paper between the cylinders and turn the crank. If the paper is moved, but not dented by the teeth, it should be satisfactory.

"No mathematical calculations, however abstruse, will ever solve the problem. In 1898 Mr. D.D. Marshall summed up all there was to say in brief words: 'Set near, strip clean, watch for effect, and study results'." (Priestman, p. 201).

Note: Many people say that care must be taken never to allow teeth on opposing card surfaces of hand or drum carders to touch each other, or it will result in serious damage to the teeth. I have old favorite hand cards, used through many years in all the wrong ways by several hundred beginning students. The cards are still in quite good condition. Students regularly use my drum carder, and damage to the teeth has occurred only when someone fed too many fibers into the machine at one time. Unlike hand cards, drum carder cylinders are fixed, so an excess of fibers can damage the teeth. I have replaced the card clothing on the drum carder once, after about four years. It takes me 15 minutes to staple on a new sheet of card clothing.

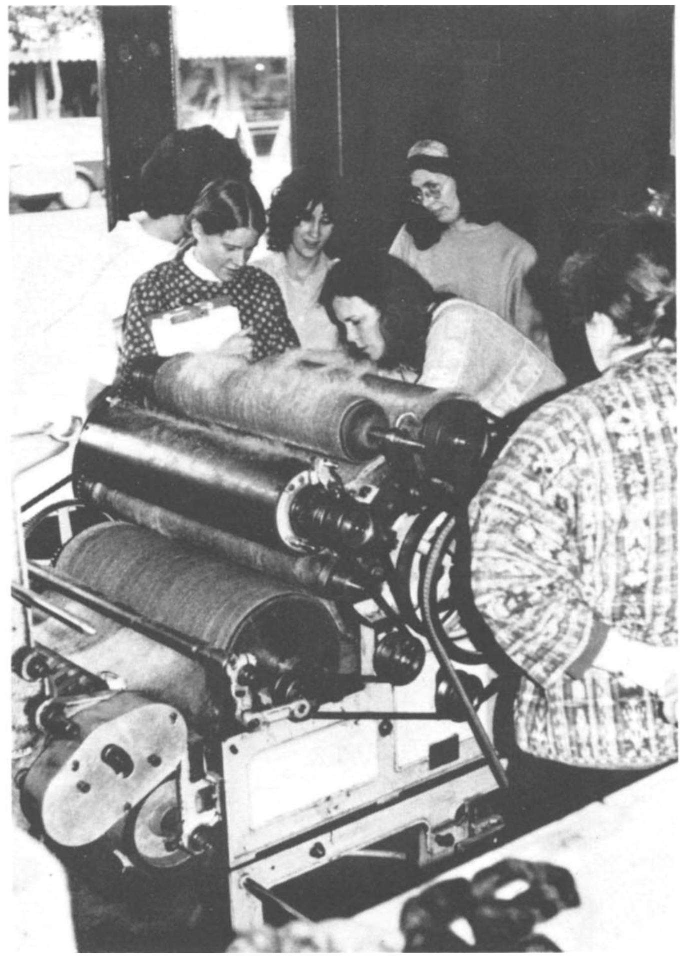


photo by Alden Amos

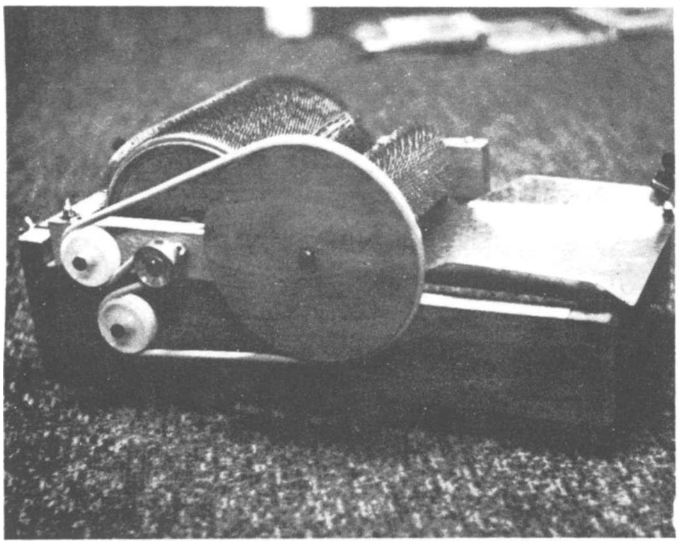
Mill sample carding machine at Straw into Gold, Oakland, California.

It is very risky to attempt to sharpen the teeth on your drum carder. Frequently the cylinders are not exactly round, and rarely do all teeth have the same ability to flex. "A smooth point is more important than a keen point." (Priestman, p. 203). Bad sharpening leaves minute burrs on wire ends, making it difficult to remove the fibers.

If a drum carder is driven by a belt rather than a chain, the belt may stretch or slip. You will know this is happening if you turn the crank, and the large cylinder turns, but not the small cylinder. Most machines have a wing nut on a bolt to adjust this. When the nut is tightened, the drive belt tightens. This can affect clearance between the two cylinders, so check and adjust again.

The cylinder bearings should be oiled frequently. Excess oil will not hurt anything; too little makes carding difficult. While carding, be careful not to allow fibers to spill over the ends of the cylinders and wrap around the axles. When this happens, it will slow down carding and be hard on the machine, and the fibers are a nuisance to remove. The longer you let them build up around the axles, the harder they are to remove.

Wool should be prepared for a drum carder as it is for hand cards. Constant carding of greasy wool will leave a residue on card clothing which can later transfer to clean fibers. If wool is washed, care should be taken so it is not matted or felted. If any fiber is clumped together, it should be teased. And seeds, burrs or double cuts should be removed.



A typical hand drum carder.

Never try to force greater amounts of fiber into your drum carder than it can easily take at one time. If you do, it will build up between the two cylinders and jam the machine. Feed in small amounts of fiber, spread rather evenly across the tray, until the large cylinder is full. At all times, you should be able to turn the crank with ease with one hand. The thickness of the fiber batt cannot be greater than the height of the wire teeth. If you try to feed in more, the main cylinder will reject it, and the fiber will begin to build up on the small cylinder.

Trying to card too much fiber at a time is a common mistake. After the main cylinder is full, it is a waste of time and energy. Even if you continue turning the crank, no further carding will occur. During the first carding, turn the crank slowly. For the second carding, it can be speeded up. "The speed at which the action takes place is an important factor. The thicker the fiber layer and the more tangled its condition, the slower should be the rotation speed of the carding surfaces." (Morton, p. 178).

To remove the batt, slide a sturdy knitting needle or pointed steel rod between the batt and the cylinder. Gently pull upward to separate the batt. Hold the end of the batt and peel it off as you turn the crank in reverse. If pieces of the batt cling to the cylinder, they can be lifted away with the knitting needle. The batt will lift off in one piece with the fibers laying more or less parallel to each other. The batt can be split lengthwise into strips, or split crosswise and rolled into rolags.

Several things should be done regularly to clean a drum carder. Whenever a batch of carding has been done, some residue remains on the card clothing. A wire brush or a dog brush with flexible teeth can be lightly flicked over the carding surfaces. Move it in the same direction the wire teeth bend. This will remove most of the fiber. Vacuuming with a small brush attachment will remove the remaining fiber and the fine dust which accumulates on cylinders, frame and under the machine. Occasionally I wipe down everything but the card clothing with alcohol.

Carding to blend fibers and colors.

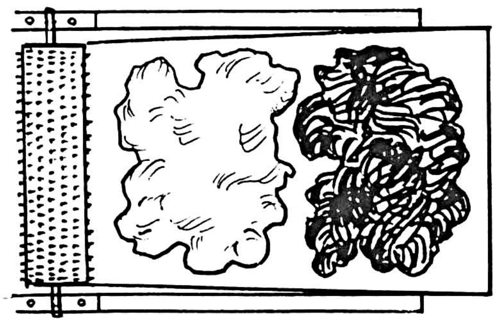
Many spinners think of the drum carders only for wool. However, carders can be used for almost all fibers (flax line, hemp, and others with extremely long staples are exceptions). Drum carders are more efficient than hand cards for blending, since larger quantities are involved at one time. Blends can be made from two or more fibers, or from several colors. It is much easier to blend two fibers which have about the same staple length and a similar texture. For instance, a beautiful blend can be made by lightly mixing caramel brown alpaca with smooth golden tussah silk. These fibers usually are available in a similar staple length and are compatible in texture.

It is more difficult to blend fibers that differ in length and texture. For instance, flax sliver with an 8" staple does not like to mix with cotton of a 1" staple. They will mix more easily if the longer staple is first cut into shorter lengths. But because of the difference in texture, they would still not blend well. Neither would the blend spin easily.

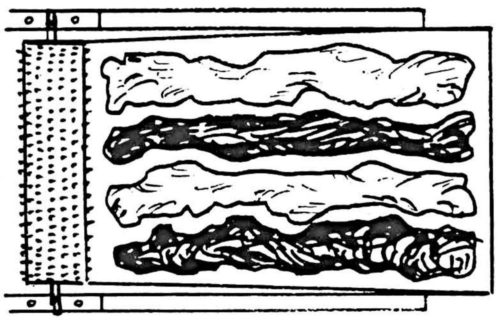
If two fibers vary in shrinkage or take-up, they should be quite thoroughly blended. If not, they can cause a fabric woven of them to pucker or dimple (of course, you may want this effect). However, if their properties are similar, they can be just lightly mixed. Light mixing will produce a yarn which shows the color and character of each fiber.

When a drum carder is used for blending, it is best to start with fibers that have been pre-carded. If you want to achieve a thoroughly mixed blend, you will have to do a lot of carding. The same amount of each fiber should be fed into the carder for every batt. After the batts are carded once, they should be split lengthwise, and the strips mixed between each subsequent carding. So many cardings must be done to produce an even blend that it is really not practical to do large quantities.

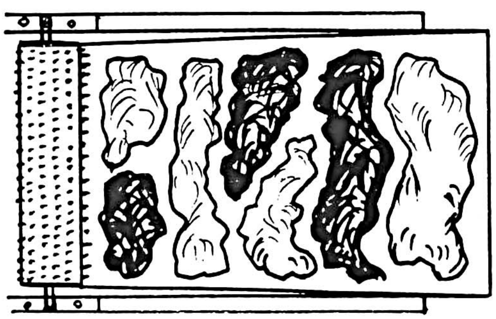
A streaked or striated blend needs only a light carding. You can easily make this, using the many kinds of carded fibers available in supply stores. You can use odds and ends of leftover fibers. And it is an excellent way to rescue a dull fiber which doesn't look interesting when spun alone. Usually it is sufficient to put this type of blend through a drum carder one or two times. Here are some suggested ways of placing fibers on the feeding tray to produce streaked blends:



For a layered batt



For a strongly striped batt



For a random streaked batt

To add just a light touch of a second color: when you have filled the main cylinder with your principal color, continue turning the crank as you lightly tuft small amounts of the second color on the main cylinder by hand.

You will find the possibilities in blending are infinite. Designing your fiber mixture before you spin can be exciting and rewarding. But the combinations and varieties that can be blended are beyond the scope of this article.

What carding equipment do you need?

It depends on how much you spin, what type of yarn you spin, and what kind of fibers you use. Obviously, if you spin only prepared fibers like wool roving, alpaca top or cotton sliver, you will never need to use carding tools. Here are some guidelines:

A. *If you spin only occasionally.* Hand cards should serve your needs very well. There is no reason to buy a drum carder unless you do a lot of carding. Instead it would be best to have two pairs of hand cards, one with coarse teeth and one with fine teeth. Use the coarse teeth for the first carding and breaking up of wool, and for coarse fibers. The fine pair can be saved for fine fibers, for final carding, and for smooth even yarns. You will be able to do better quality carding than you could do with only one size of card clothing on either hand cards or drum carder. And you can easily carry hand cards with you.

B. *If you spin frequently and make rather thick, textured yarns.* You would probably appreciate a drum carder with coarse card clothing. It would save time if only used for breaking up and arranging your fibers in a more or less parallel position. For thick, textured yarns this kind of preparation is adequate. It would also serve for light blending or streaking. If you only occasionally want to card for a fine even yarn, you can keep a pair of cards on hand with fine teeth. You can take the batts from your drum carder and card them more finely with your hand cards whenever you feel this is necessary.

C. *If you spin frequently and make quite smooth, thin yarns.* A drum carder with fine teeth would be very helpful. It would give a final smooth carding to all your fibers. This even carding helps if you want to spin a thin, even yarn. However you must carefully prepare the fibers before putting them in a fine drum carder. It would be wise to have a pair of hand cards with heavy teeth to use for coarser fibers and the initial breaking up of teased fibers.

D. *If you are a production spinner.* You probably spin large quantities of wool and do some blending. You may have to fill orders for all types of yarn. It would be possible to have a drum carder which has interchangeable cylinders including fine, medium and coarse card clothing. It would be more convenient, though, to have two drum carders placed next to each other, to save the time of changing drums and making adjustments. One should have coarse teeth. The other should have fine teeth and be set as closely as possible. It is also very helpful to keep extra card clothing on hand, so it can be changed when necessary. Have a pair of hand cards around to quickly test samples and blends. Remember, your hand cards are more portable than your drum carder, so you will always need them.

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FROM BOBBIN FLYER TO ELECTRIC SPINNER

by Joan Holborn

Preferring the aesthetic nature of a treadle wheel can have disadvantages at times. Because of size and cumbersomeness, spinning wheels are not readily transportable. An easy solution to this dilemma is to convert the flyer assembly of the treadle wheel to an electric spinning machine. Some simple construction and the use of an old sewing machine motor and foot control can make a compact spinning machine for less than twenty dollars and one afternoon's work.

An added advantage to this electric spinner would be for the spinning teacher. Students can learn the proper hand action before having to learn to treadle at the same time. Once the hand control and tension is mastered, the flyer assembly is returned to the wheel for the student to add the treadling action to her skill.

Following are simple directions and diagrams for the conversion of an Ashford flyer assembly to an electric spinner. (Many spinners have purchased a jumbo flyer for their Ashford wheel, and the conversion will permit use of the second flyer.) Each builder can vary the design and dimensions to fit his needs and his flyer-bobbin assembly.

MATERIALS

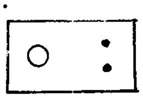
Flyer assembly and bobbins from a treadle wheel.

Sewing machine motor with foot control: These can be purchased reasonably at second hand stores and sewing machine sales centers.

Platform: piece of plywood, pressed board, or other board ½" to 1" thick and approximately 12" x 12".**

Maidens: Two pieces of dowel, ¾" to 1" diameter and 5" to 6" long. One screw to countersink one maiden to platform.

Bearings: Two pieces of scrap plastic sawed to approximately 2" x 1" with two screw holes drilled on one side and one large hole drilled to fit orifice of flyer on the other. Four screws to fasten these bearings to maidens:



Tension knob: Tapered piece of wood with small hole drilled through the top. Tension knob from spinning wheel can be utilized. Nylon line, one screw eye, one screw hook, and one rubber band.

Drive band: Elastic rope or band, measured, cut and spliced to fit distance between flyer and motor. Note that the band should have enough stretch to it to be able to figure-eight it on the machine. Reversing the direction of the spin for plying is accomplished in this manner.

Plying dowels: Two 5"-6" dowels with a small enough diameter to allow a bobbin to turn freely on them.

**If an old typewriter case, projector case, make-up case or something similar is available, the whole unit can be made with dimensions to fit inside. This would insure protected, compact traveling and storage.

Tools: Drill and assorted bits; screwdriver; saw; glue.

ASSEMBLY INSTRUCTIONS

Basically this spinning machine copies the set-up of the flyer-bobbin mechanism on the spinning wheel. First the plastic bearings should be made according to the description in the materials section. These are then screwed to the top inside edge of each maiden.

Measurements for the placement of the maidens should be carefully taken by measuring the flyer assembly. Two holes are then drilled part way through the platform in the correct position on the left side of platform. The front maiden is permanently glued into its hole. The back maiden is secured with a countersunk screw from the bottom. This will allow it to turn so that the bobbin may be changed.

With the flyer and bobbin in place, a screw hook is attached directly below the right hand side of the back of the bobbin. A screw eye is placed in a similar position on the left side. A hole is drilled to accommodate the tapered tension knob in a direct line up from the screw eye. The nylon line is tied to a rubber band which is placed in the screw hook. The line then goes over the bobbin (fitting into the groove) through the eye, and is tied through the hole on the knob. Turning the knob will adjust the tension on the bobbin.

The motor mechanism is screwed to the back right-hand side of the platform. The groove in the flyer must be lined up parallel with the groove on the front of motor. When the motor is secured, the drive band can be measured, cut, spliced, and put in position.

If desired, two dowels can be glued into drilled holes toward the front right-hand side. They should be placed in order that two bobbins can be stored on them and can turn freely when plying.

The spinning machine is now ready to spin. But, when the motor becomes tiring and aesthetics are once again desired, the flyer assembly can be easily removed and returned to its original treadle wheel. □

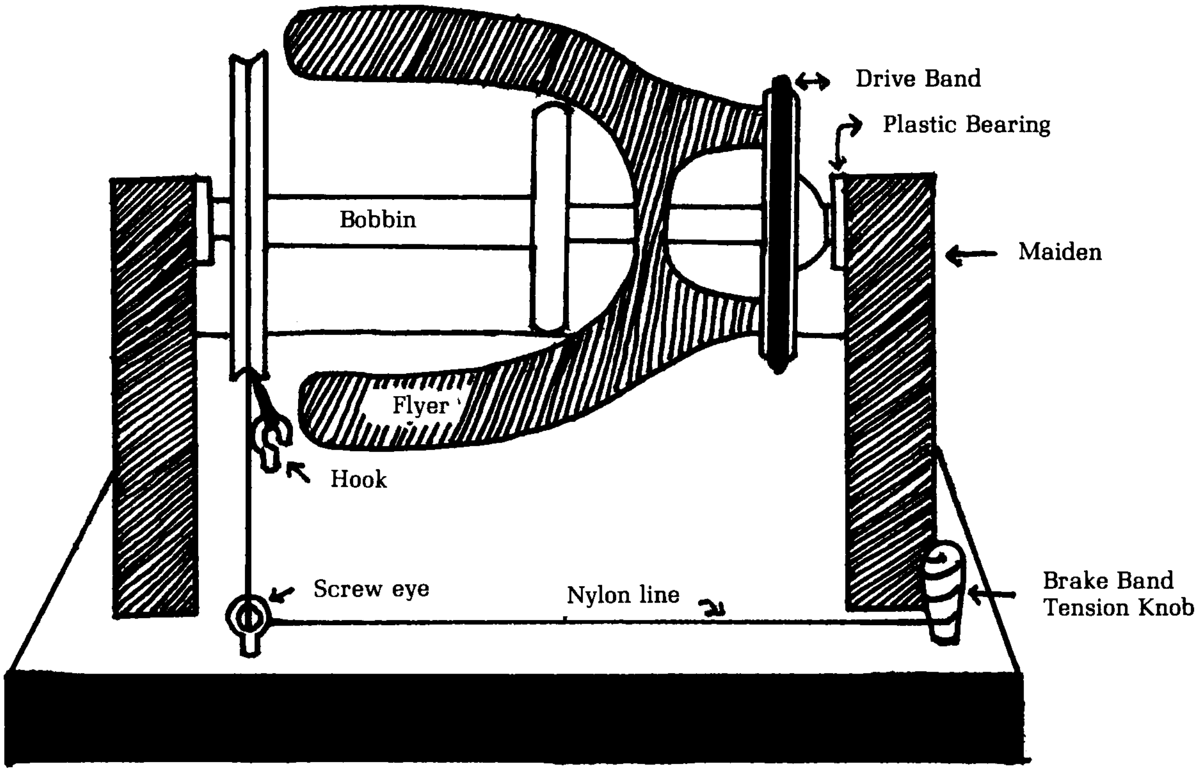


Diagram A: *Side view showing position of maidens, flyer and tension knob. Dimensions not given as they will vary with the type of flyer assembly being used.*

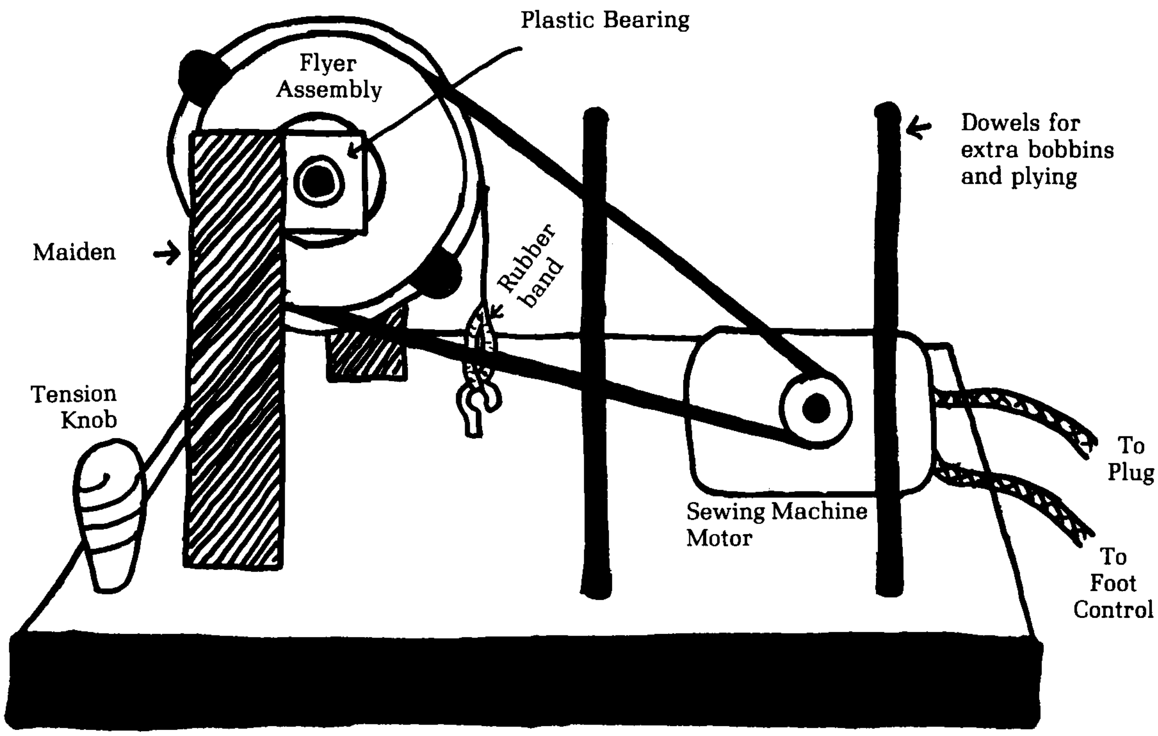


Diagram B: *Front view showing position of flyer assembly, motor, and plying dowels.*

THE GREAT WHEEL

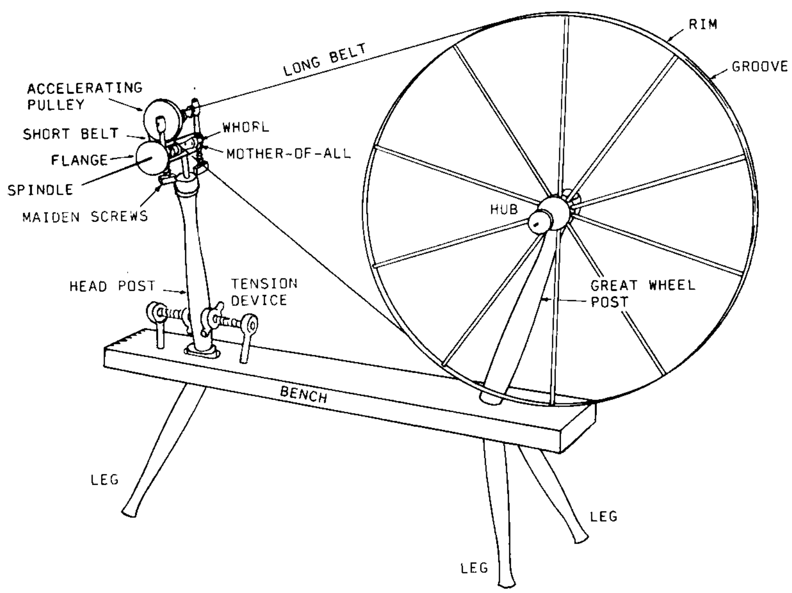
by Katy Turner

Spinning is basic to fiber art, and we are presently experiencing a renewal of interest in spinning wheels of all kinds and how they perform. This article is written to describe and explain the spinning wheel variously called the walking, wool, muckle, high, long, but most commonly, the great wheel.

The great wheel as we know it here in America is illustrated in Figure 1. The bench is about 4' by 6" by 3", supported by three legs from 18" to 24" high. A single leg supports the head post. Two legs support the drive wheel. For efficient spinning the drive wheel should slant away from the spinner to allow shoulder room for winding on and facility in turning the wheel. This can be achieved by a short far leg under the wheel or a slanted wheel post. The head post is about 24" high and the wheel post about 28". The drive wheel is about 4' in diameter.

The wheel post is fitted with a horizontal iron axle at right angle to the bench to accommodate the drive wheel. The head post is recessed to hold the stem of the spinning head or, on occasion, tapered to fit a recessed head. A tension device on the bench will pull the headpost away from the wheel post, thus tensioning the long belt.

The drive wheel has from six to 12 spokes and a rim from 1½" to 3½" wide and ¼" to ½" thick, with or without a groove for the drive belt. Many variations of all the above dimensions occur.



The spinning head may be one of three kinds. The first is the bat head. It consists of a paddle-like board with a cavity for the spindle shaft. The spindle is attached to the paddle with leather or corn-husk bearings. A drive belt goes directly around the drive wheel to a pulley groove on the spindle. This is the basic great wheel.

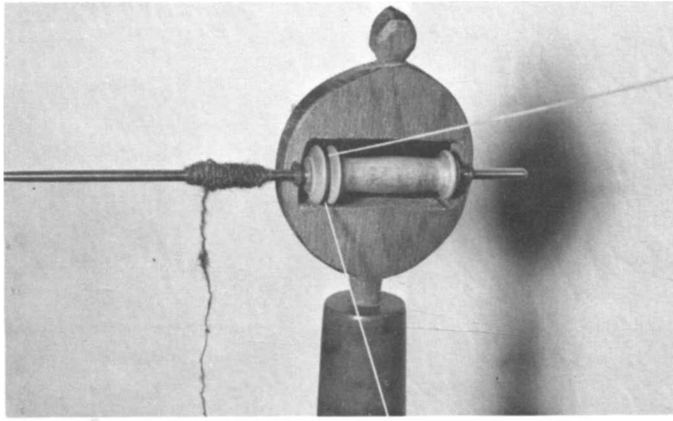
The second head is referred to as direct drive even though the bat head is also direct drive. It consists of a stem, base, and two uprights which are either slotted or fitted with bearings to hold the spindle shaft. The spindle has one or more pulley grooves between the uprights to hold the drive belt.

The third head is designed for speed. It is called the accelerating head or the Minor's head after the inventor. The base is similar to direct drive except the uprights are longer and hold a second shaft parallel to the spindle but not extending beyond the uprights. This second shaft holds a large pulley groove, from 4" to 5" in diameter and one or more small grooves similar to the spindle grooves. In this case the main drive belt goes around the small groove on the upper shaft and a second short belt goes around the large upper pulley groove and down to a groove on the spindle. Tension for the second belt is changed by screws in the uprights.

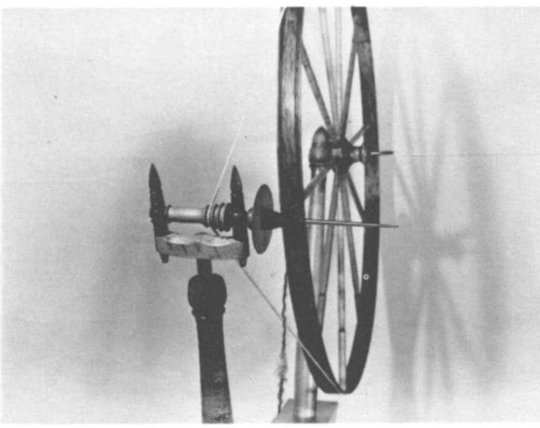
The accelerating head was invented by Amos Minor around 1800 and patented soon after in the U.S. It is often called a Minor's head whether the device is one of the originals or not. The swift advance of industry in England and the cool relationship at that time between the U.S. and England kept the fast head from general use in England, but in the United States it had great success. The following quotation from *A History of American Manufacturers* by J. Leander Bishop, portrays the enthusiasm of the Americans for Mr. Minor's invention:

> Amos Minor, Marcellus, N.Y. (April 11, 1810), spinning wheel heads. This invention, first patented No. 16, 1803, and embracing a double geared great wheel and a horizontal little wheel, did not attract attention until 1804, when a partnership was formed, and a small manufactory, highly original and ingenious in its plan was erected by Minor, Demming, Pierce & Co., who the present year, employed 20 hands, and made weekly from six to nine thousand of the patent accelerating wheel heads. The gain of velocity, in the spindle, by the accelerating wheel, was said to be as nineteen to nine, or more than double, and the saving of labor in spinning wool to be one third, in worsted one half, and for merino wool it was indispensable. It was also much employed for cotton and tow, and the wheel heads were extensively counterfeited in New England.

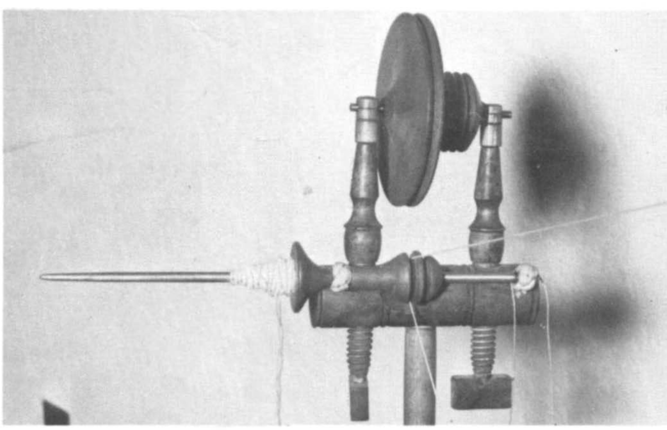
This was the high point of a long evolution for the great wheel. The first spinning wheel, we generally accept, was designed in India or China perhaps as early as 2,000 B.C. when silk culture was already



Bat head.



Paired maiden.



Minor's head.

advanced. It was a miniature of the present great wheel and the principle of spinning was the same as our direct drive although there were variations such as multiple spindles. We do not know whether it was developed to spin cotton or twist silk, but it was apparently unknown in Europe before the advent of silk technology around A.D. 500. The tiny Asian wheel was gradually accepted and enlarged by the emerging Western civilization, but the flyer-bobbin, invented about 1530, quickly left the older spindle wheel far behind. It survived in England and the American colonies where it was widely used, especially after the accelerating head became available.

There was diversity of design in the past but the principle did not change. In India the wheel was small, resting on the ground while the spinner sat beside it. In medieval Europe the bench was chair height, the drive wheel much smaller than ours and turned with a crank or a knob on one of the spokes while the spinner sat on a chair beside the wheel. This style is still seen occasionally. However, it is slow compared to the walking wheel because the draw is limited to arm's reach and therefore negates the real advantage of a walking wheel.

Design and materials of early wheels cover a wide range, some being so crude it is hard to imagine spinning on them while others are austerely functional. With the current interest in skills and craftsmanship, the great wheel is being reassessed and neither the design nor the operation will necessarily remain static.

The American great wheel, whether it be contemporary or a well preserved Shaker classic, is an excellent spinning device for conventional or exotic fibers if they are well prepared. Gummy wool is difficult to spin on any wheel. Prime, medium to long staple wool spins equally well on either style of wheel. But cotton, combed silk, camel down or lamb wool and similar fibers are faster and more easily spun on the great wheel. Pure line flax should be spun on a flax wheel.

All factors being equal, the great wheel is as fast or faster than any treadle wheel, but all factors cannot be equal. An accomplished spinner with well-prepared fiber and an excellent wheel, treadle or great, will be able to spin over 500 yards per hour. However, it is unusual for the same spinner to be so skilled on both wheels. We seem to prefer one wheel or the other for a variety of reasons, not necessarily speed,—i.e., portability, space, cost, skills or peer approval. The great wheel is sometimes ignored because spinners "walked 20 miles a day on that wheel." That phrase is heard and accepted surprisingly often, yet it is easily disproved. The great wheel technique is intermittent (which will be described in detail later), drawing out, then winding on. Twenty miles of walking would produce ten miles of yarn or 17,600 yards. At 500 yards per hour this would mean over 35 hours of spinning in one day! Housewives who had to spin on a walking wheel in addition to their many arduous chores undoubtedly felt like they had walked 20 miles and *said so*. It is quite different today, since many of us seek and enjoy physical activity.

Spinning on the Great Wheel

Now then, how does the walking wheel spin?

Begin by attaching a yard of durable, woolly yarn to the spindle close to the flange, taping, if necessary, to prevent slippage.

The entire head and spindle should be a little more than right angle to the bench. The increased angle facilitates both draw and winding on.

With the left hand, hold the leader at a 45° angle from the spindle axis off the point. Place the right hand conveniently on a wheel spoke and slowly turn clockwise. The leader held with light tension will spiral down the spindle, off the point, and start to twist. You will begin to see how the wheel operates.

Beginners are encouraged to use commercial roving or top for their first experience. Pull off a 3" to 4" section of roving, and with this fiber at right angle to the leader, fold the section around the end of the leader, being careful to keep the fiber orderly.

Lightly pinch the leader buried in the fold, hold the leader at 45° angle from spindle point under light tension. With the right hand turn the wheel clockwise perhaps one-half revolution and pause. You will find the leader has started to twist some of the new fiber and is now spliced on. It is very important that you relax your left hand and start to draw as soon as the fiber is caught or else it can snarl. Once the splice is made, start moving your left hand back, maintaining the angle, and turning the wheel at the same time. *Keep your eyes on the fiber* and you will see that as long as you move back while turning the wheel, twist will draw fiber from your hand in a triangle and spin it into yarn. Hold the fiber firmly enough to control the draw, but lightly enough to keep it fluid. Your hand will become sensitive to the light touch of staying ahead of the twist.

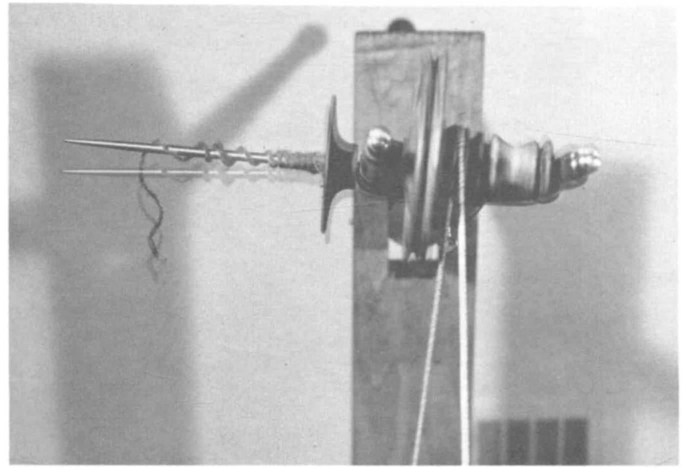
Now you have spun a length of yarn. With light tension maintained, reverse the wheel *just a little way* to clear the spindle point of spiraling yarn, then bring your left hand holding the yarn in very close to the wheel. Your hands will be close together at this point, one on a wheel spoke and one holding the yarn near the wheel. Now resume the clockwise motion of wheel and step forward while the yarn winds up on the spindle. Leave at least a foot of yarn unwound and move your left hand back out to the 45° spinning angle. With courage and conviction, resume the drawing back while you turn the wheel and again the yarn will spin out.

The yarn should be wound on the spindle very carefully. This will be discussed later.

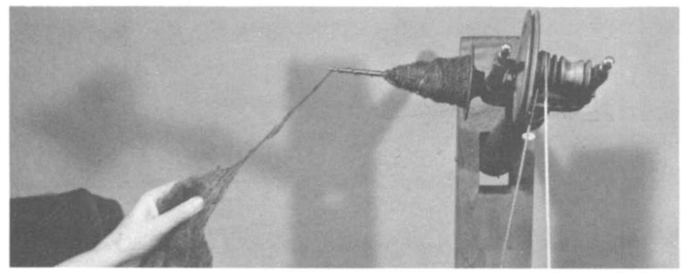
The procedure of spinning out, pausing to reverse the wheel and clear the spindle point, then resuming the original direction of the wheel rotation to wind on is "intermittent spinning". It is an important difference between great wheels and treadles, where the yarn is wound on as it is spun. The two systems overlap if a treadle is used with the long draw since that is, in a sense, intermittent spinning, but it does not require the pause to reverse the wheel motion.

The pause at the end of the draw is the only pause. Winding on and drawing out are continuous. The spinner walks forward with the left hand very close to the wheel only until just past the center of the bench, whereupon the draw hand sweeps out in an arc to the 45° spinning angle. This refinement of technique is very fast, is smooth spinning and much easier than winding up close to the spindle and maneuvering out again to the spinning angle. It also helps maintain light, even tension.

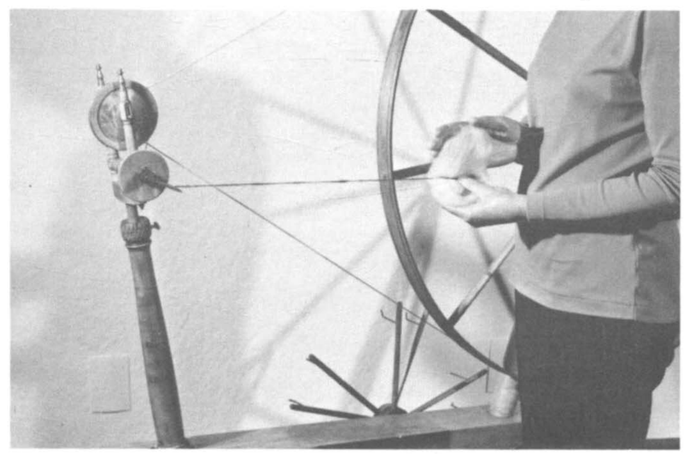
Care is required when winding yarn on the spindle. One method is used when the yarn is going to be washed and blocked or dyed. In this case the spinner will build a cone of yarn close to the flange. If the cone is soft, eases away from the flange or moves out too far on the spindle, it will hamper the free sweep of winding on and moving out to the next draw. The good solid cone is best achieved by winding back and forth



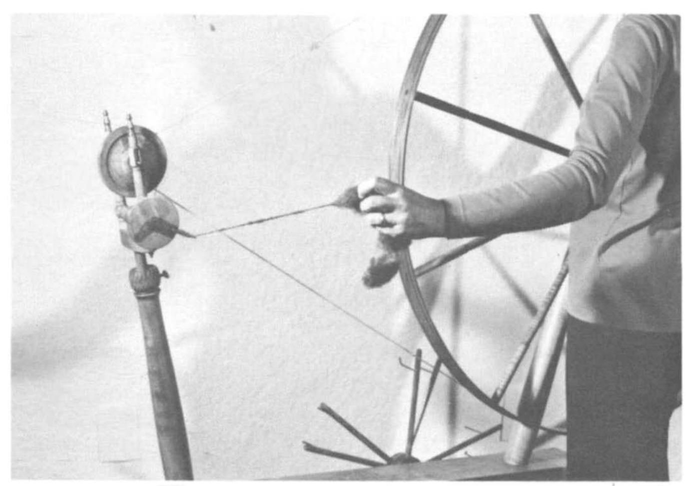
The head and spindle should be a little more than right angle to the bench.



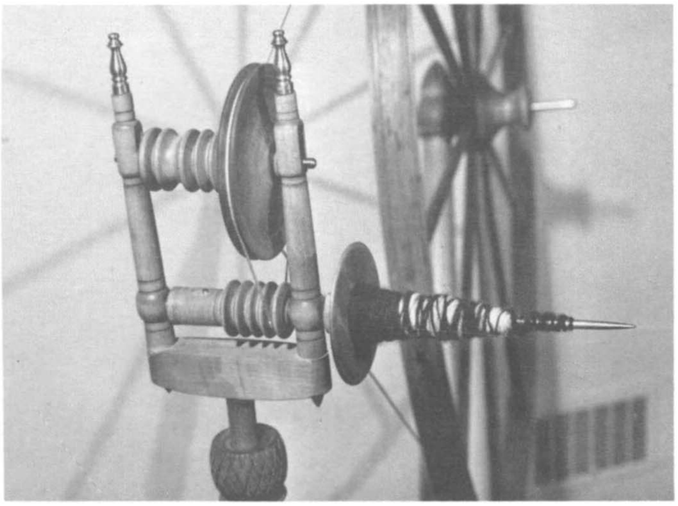
Hold the leader at a 45° angle from the spindle axis off the point.



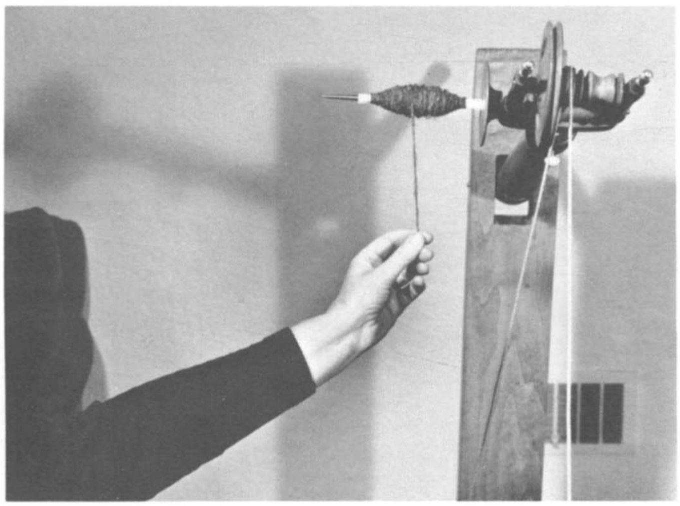
Fold a section of roving around the end of the leader.



Draw the fiber from your hand in a triangle.



Wind on by bringing your left hand in close to the wheel, while reversing directions.



Aim for a solid cone by criss-crossing the width.

across the width of the cone. A second method is used when the yarn is going to be woven as spun without further processing. This is suitable when the final article can be washed and blocked rather than the yarn. In this case wrap a paper quill or thin corn husk tightly around the spindle shaft and secure there by wraps of leader yarn as on a bobbin winder. Then start spinning and wind the yarn on the quill in an ellipse, building small hills on each end before filling in the center. This is a great time saver, but the unprocessed yarn must be suited to the project in mind.

Some old wheels have very heavy rims and spokes for momentum. They require a different approach, since stopping and reversing a heavy wheel every few seconds is much too hard on the spinner. The momentum will have to be used up which means the spinner will walk some distance from the wheel and then devise a method for return while keeping the yarn under tension. This could be done with a stick or a helper.

Spinning with handcarded rolags is also a different technique. Usually one rolag is drawn out as smoothly as possible. The wheel is turned until the yarn has adequate twist; then the yarn is wound on and spliced to a new rolag. Spinning from swags or large batts is convenient because they require infrequent splicing, and even this can be done with one hand. It is not difficult to splice on a swag with light thumb pressure.

Plying is achieved by running two or more strands of yarn onto the spindle while turning the wheel counterclockwise. A second method is to cross the drive belt between the drive wheel and the head and proceed as above while turning the wheel clockwise. Crossing the belt turns the spindle in the opposite direction.

Although most of us are right-handed, the left-hand draw is traditional to the great wheel. It is puzzling that we never see an old wheel set up for right-hand draw. Perhaps this is because the draw itself is a simple matter while synchronizing twist to the draw is more difficult; therefore, the skilled hand should be on the wheel. We don't fully understand whether this is a matter of tradition only or whether the wheel evolved to the best use of our general aptitudes. It would be interesting to know how this topic has affected the wheel's history.

If a wheel is not functioning well, check the following:

A. The head and spindle should be stabilized at slightly more than 90° off the bench. If it keeps inching back toward you, the head is too loose in the post or the fiber is not drawing well.

B. For belt slippage use belt dressing rather than beeswax because beeswax has a tendency to transfer to the pulley groove where it builds up to a lopsided pulley.

C. The wheel axle should be cleaned and greased with petroleum jelly periodically.

D. The belts should be spliced as smoothly as possible.

E. Check and oil the bearings. If they are leather or braided corn husk, they may need to be replaced.

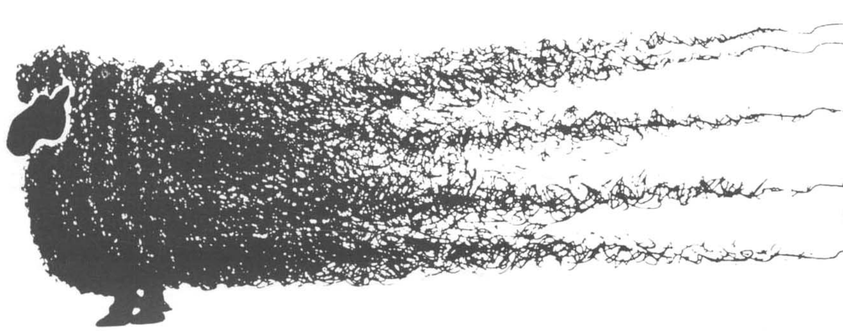
F. Experiment with holding your drawing hand farther away. Often a fiber will open up and spin well with more than the usual 45° angle off the spindle point.

G. If the drive belt persists in falling off, make sure the wheel is aligned with a pulley groove and both are stable. Sometimes the wheel is warped and will have to be rebuilt by an experienced woodworker. Look into this very carefully before buying an old wheel if you really plan to spin on it.

H. The entire spindle shaft must be perfectly straight. If not, it can usually be corrected by a metalworker. The slightest bend will mean the spindle is turning with a wobble. This would be like the spin cycle on a washing machine when the load is not balanced.

I. If great wheel technique eludes you, practice with a ball of underspun yarn until the motions are rhythmic and free.

All true spinners love and cherish their wheels, but those who have become enamoured with a great wheel are very nearly obsessed. The great wheel has such presence that even when not in use it seems to convey a sense of serenity, an acceptance of waiting; yet, at the same time, there is a strangely compelling willingness to perform. Like a music box! Who can refrain from turning the key? Who can resist hand to the spoke? □



SPINNING IN THE GREASE

by Brenda Eckstrom

". . . too late smart" could well describe what many of us have gone through when learning to spin. How I anxiously awaited for my wheel to arrive from New Zealand. After carefully unpacking and assembling, I cautiously began to treadle. Excitement began to mount and I rushed out in search of wool from neighbors—did he actually say he had a *gray* fleece? I took it and a white one as well. I paid the price, went home and eagerly began to sort and wash and tease and card, and tease and card some more. Still the chopped hay stuck persistantly to the wool. Spinning became a chore, and preparation seemed endless. I was discouraged, but determined to find a better way.

That was the start of our flock, from a meager beginning of three spring lambs, two black and one white. Several years have elapsed; the flock has grown and now represents 13 breeds of sheep from Karakul to Rambouillet, from hill breeds to down breeds with a wide variety of grades and colors of wool. I have given up washing and carding wool and now do all my spinning in the grease with an absolute minimum of preparation. I find that spinning in the grease saves time, is quick and easy, and gives similar results to the washing-drying-teasing-carding-oiling method. The procedure I describe in this article requires only two investments beyond your spinning wheel—a good fleece and a dog comb. The result is a worsted yarn spun to any thickness, limited only by your skill, your wheel and the wool.

First, let's discuss the fleece. You need a good clean fleece! Yes, there are sheep who have not found every burdock in the county or have not had chopped hay tossed carelessly onto their backs. Numerous sheep raisers pride themselves in raising handspinning wool that is relatively free from hay and vegetable matter. If you raise your own sheep as we do, you can do several things to keep your sheep clean, including proper bunk design, putting the hay out before letting the sheep into an area, sheep coats (not advisable for hair-wool breeds), and shearing at opportune times. The cleanest fleeces are usually those shorn in the fall, after the sheep come off pasture. You can expect to pay more for the time and trouble the producer has spent, but a nice clean fleece is a sheer joy to use. In addition, you avoid spending your own time and energy trying to salvage a dirty fleece.

A basic knowledge of sheep breeds is also quite helpful in choosing a fleece. Since much business is done mail-order, you will be better able to predict the resulting yarn, if you know the wool qualities of different breeds. Sheep breeds are extremely varied, and the study of them will widen your spinning knowledge.

A skirted fleece is usually the best buy; this means that the producer has taken the time to remove unspinnable parts such as belly wool, manure tags, and wool filled with hay. However, while a skirted fleece usually costs more per pound, it is much more enjoyable to use.

Okay, you now have a fleece and have probably done no more work than writing a check and unpacking the fleece. You may now want to sort the fleece as to color and grade. Some fleeces are fairly uniform in color; others are filled with spots and color gradations. Sorting depends on the end purpose for your yarn; you may prefer to let the colors mix as they come. Wool grade also varies within a fleece—the finest on the head and neck, the coarsest on the back legs. The latter can be quite coarse and kempy, so check the wool over and decide if you need to sort by grade.

You will need a wide-toothed comb for the next step. You can purchase a very substantial metal dog comb at any pet store and at some supermarkets and variety stores for under three dollars. To start, lay the fleece, or a portion of it, with the cut side down. Separate a portion of the fleece about the diameter of a quarter by grasping the outer ends of the wool with one hand and neighboring wool with the other hand. Then gently pull sideways on the small portion, trying not to disturb the remaining wool. *The key to this entire method of preparation and spinning is to maintain the original alignment of the wool fibers.*

Now firmly grasp the cut end of the lock and run the dog comb a few times through the opposite tips. This works best if you comb the wool on your knee or lap. Don't try to pull the comb through the whole lock of wool at once. Just pull the comb through the top to a depth that doesn't give you too much resistance. Turn the lock and continue combing until you have freed most of the tips from one another—usually a dozen

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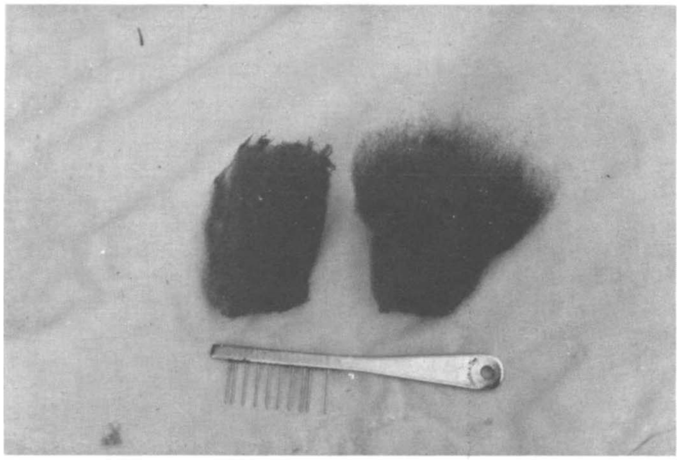
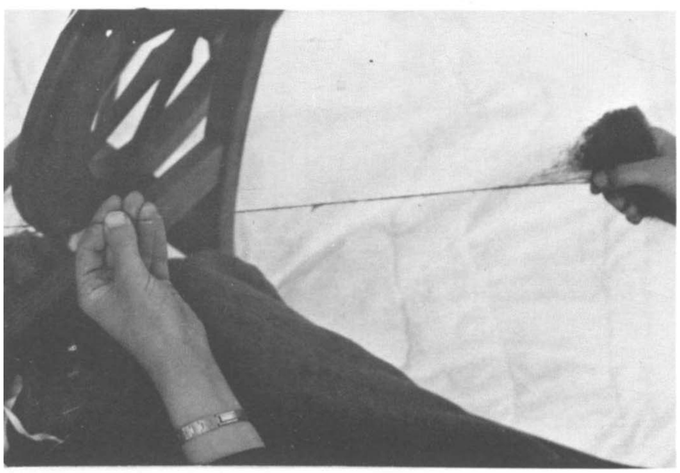
**Artwork by Bill Shepherd, courtesy of Adamscraft, Laramie, Wyoming.*





strokes or less and you're done. All you want to do is loosen the wool tips from one another to facilitate spinning.

If you find the going tough, take a smaller portion of wool to comb. Trial and error will teach you the maximum amount to grasp for the most efficient use of your time. Comb out any amount of wool you like. You can store it nicely at this stage or you can comb as you go if you are anxious.

I want to point out a few things at this stage of preparation. First, you may not even need to comb much of the fleece in this manner. Certain sheep breeds produce wool that does not have tangled tips. A fleece of this type saves you considerable time; you may not need to do anything but loosen the ends with your fingers. Another suggestion is to remove every other tooth from your comb with a pair of pliers. This seems to make the combing process easier. Also, if you did obtain a hay-ridden fleece, you can usually comb it out in this manner. Last, some sheep grow wool in small clumps or locks. If the locks are really small and pronounced, you will find it easier to spin if you run the comb quickly through the cut end also.

You will be able to easily tell how much combing, if any, you need to do when you start to spin. If the fibers don't slide away from each other easily, you need to comb more. But don't be surprised if you are not over-combing. Experiment with less and less preparation while still producing the type of yarn you want.

You are now ready to spin. So far, you may have still done very little actual work. Pick up one of the small locks of wool and hold it with the *cut end toward the wheel*. Fan a few fibers off the side of the lock and let the leader yarn off your bobbin pick up these fibers in the twist. Go slowly until you get the hang of this. As the twist picks up the fibers, pull your hand back away from the wheel. Use the twist to pick up the new fibers while keeping the twist from penetrating too deeply into the lock of wool. Don't grasp the wool too tightly— you need to let the fibers slip out while keeping back the remaining ones. What you want to aim for is letting individual fibers slide out of your hand, not letting clumps of fibers slide out.

You may keep the other hand on the yarn near the orifice to help pull and twist the yarn out of the lock, and to pick up new locks of wool as they are needed to spin. It is very important to always keep the cut ends of the wool toward the wheel, especially when working with fleeces such as Karakul or Highland that have tips of hair. If you try to spin from the hairy outer tips, you will suddenly have a slub in your yarn that no orifice can handle!

When you're through spinning, make the yarn into skeins, then wash the yarn in water as hot as your hands can stand. Soak first in clear hot water, then wash in hot soapy water, always taking care to let the water cool naturally to room temperature. Rinse the yarn and hang it to dry. Follow the directions and precautions for washing yarn that is found in most spinning books.

That's it! It is not very difficult, but like all styles of spinning, you need to give it time to be comfortable with it. I do all my spinning as described above and believe this simple and quick method produces an excellent yarn. □

KIWICRAFT

by Beverley Horne

Kiwicraft, a method of preparing wool for knitting and other uses, employing only the hands to roll or twist the staples, is a craft almost as old as the sheep itself and did not originate in New Zealand as many people believe.

New Zealand can, however, claim the credit for the name given to this craft. The name Kiwicraft, or *Wirahipi* in Maori, was coined by Mr. Colin Southey, a former vice-president of the New Zealand Spinning, Weaving and Woolcrafts Society. Sheep were first introduced into New Zealand in 1834 and by 1840 were widespread throughout the country; so, it was not unreasonable to assume that the Maori women, with their nimble fingers, evolved the craft in New Zealand at this time.

Poorman's jersey was the name first given to the garments knitted in this manner, as the wool used was usually black and at that time had little commercial value. Number 8 fencing wire or namuka sticks were sharpened to a point and used as knitting needles by the Maori women, who would sit on the wool bales or on the floor in the corner of the woolshed and knit during their work breaks. A shearer's comb was used to remove any lumps or knots in the fleece, as this was readily available.

Today both Maori and European women practice this craft and its popularity has grown tremendously over the last five years.

There are four distinctly different methods of Kiwicraft:

1. **The original form of Kiwicraft.** The wool was either pulled off the barbed wire fences, plucked from dead sheep, or pulled from a shorn fleece in a continuous thread and knitted without any further preparation. With no rolling or twisting, this method is the true form of Kiwicraft and produces very light, bulky garments.
2. **Prepared rolag of wool pulled end over end** and rolled before knitting. This method results in a textured finish to the garments caused through considerable variation in thickness of yarn.
3. **Prepared rolag of wool pulled straight** to overlap the fibers and rolled before knitting. As all the fibers are lying the same say before they are rolled, a smooth finish is easier to achieve.
4. **Carded wool (not in rolags) rolled and knitted.** All cotted (matted or tangled) short ends and foreign matter are removed by the carding machine. This method requires very firm knitting, resulting in heavier garments than methods 2 and 3, but it will give a smooth finish as in method 3.

By practicing the step-by-step instructions of method 3 given below, you can master the basic skills of Kiwicraft. These skills can then be adapted to suit any method.

1. Preparing the wool. Comb or tease the tips of each staple with the fingers.

2. Pulling the wool. Sit on a comfortable chair, preferably without sides. The height of the chair should allow your feet to rest flat on the floor. Fix a long piece of sacking firmly around the mid-thighs, and anchor the ends by sitting on them. The sacking must at all times be kept taut and wrinkle-free. Crossing the feet after the sack is anchored gives the desired result.
Take a small handful of prepared wool in the left hand. With both hands and wrists in a relaxed position resting on the thighs, grasp the tips firmly with the thumb and first two fingers of the right hand. Do the same with the left hand at the base of the staple.
Now drag the fibers apart just enough to overlap and *lightly* roll the pulled part of the wool with the right hand, letting the thick soft roll pass to the right.
The final step of rolling uses the same technique as above. Pull the wool to the left, holding firmly with the right hand at the same time. This time you are trying to get even yarn of the thickness required.

The pulling is most important and if done properly, needs only one light roll forward and one firm roll back with the left hand. Let the rolled wool pass to the left. If you require a very light, soft, bulky yarn, adjust your rolling accordingly.

Another method which is both quick and easy is to wind the wool onto a thick knitting needle instead of rolling it on the knees.

Hold the wool in the left hand with the knitting needle in the right. Pull out a small sliver of wool and hold the end firmly against the needle with the thumb and forefinger of the right hand and about 2" to 3" from the tip.

Twist the needle over and around the wool. Continue to draw out and twist. The wool will be wound onto the needle and a light twist will automatically take place. Draw out as evenly as possible. If thin patches occur, break and overlap while knitting. Keep pushing the wool down the needle. When the needle is full, wind the wool off into a ball.

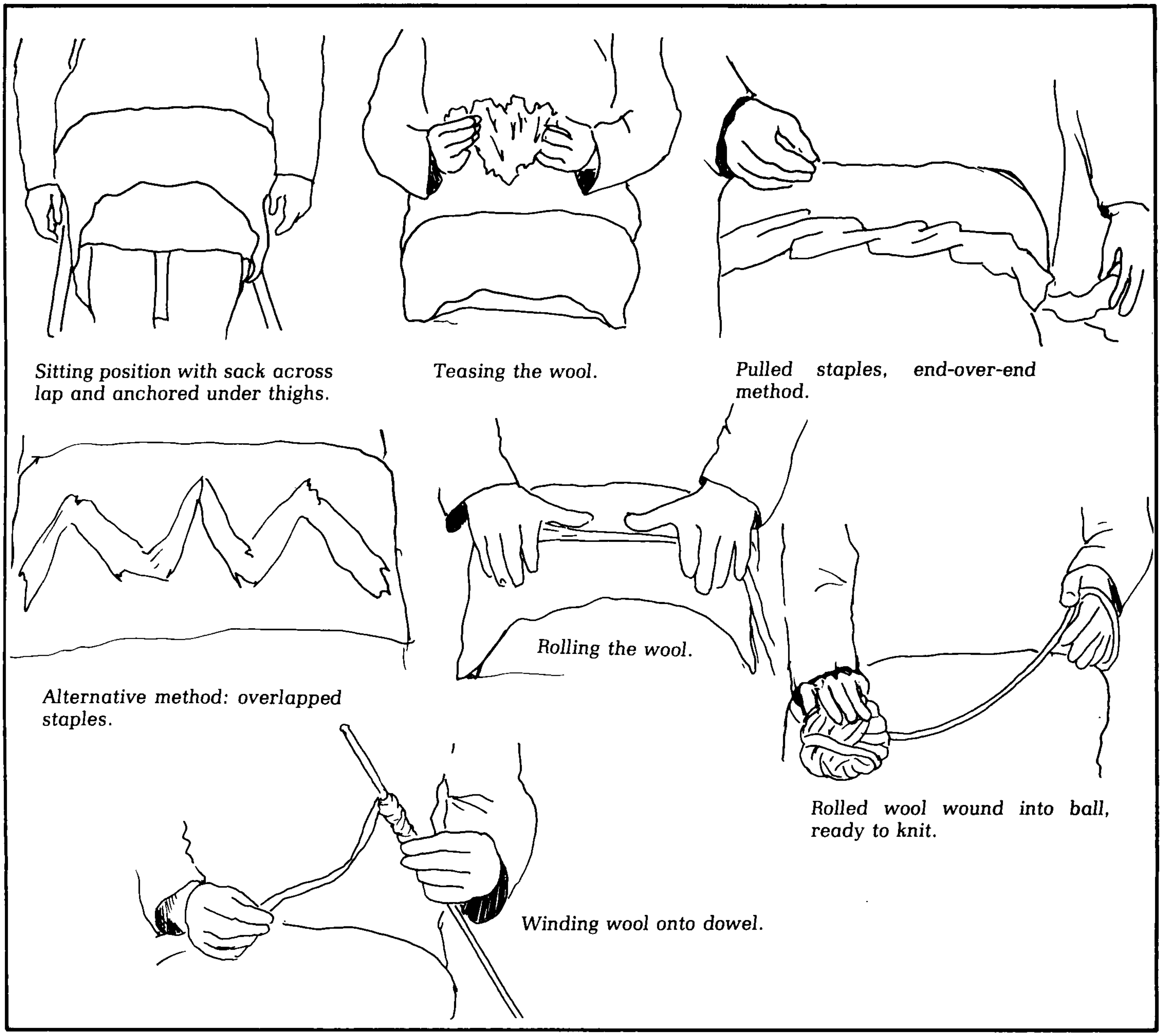
Before knitting, no matter which method you use, always wind the prepared yarn into a soft ball, as it is important that you commence knitting from the end you began rolling. When knitting, hold the thread between the index and middle fingers, not wound around the little finger.

Knitting from the fleece does not restrict the choice of pattern or garment, provided the thread is rolled with its ultimate use in mind.

Stocking stitch or cables are most effective, and Fair Isle and Maori designs can be added to give the garment originality.

As a general rule, use knitting needles one size smaller than the pattern states. Work the knit rows rather loosely, but the stitch at the *end* of each row should be firm. Circular needles can be used but are not as satisfactory as straight ones, as the stitches have to be handled more during each row.

Always knit a tension sample first. Cast on using the needle between the stitches method, but as the ribbing will be less elastic than a ribbing using spun wool, fewer stitches will be required for the ribbing. But



Sitting position with sack across lap and anchored under thighs.

Teasing the wool.

Pulled staples, end-over-end method.

Alternative method: overlapped staples.

Rolling the wool.

Rolled wool wound into ball, ready to knit.

Winding wool onto dowel.

increase along the last row to obtain the desired number of stitches for the main part of the garment. Smaller needles or slightly firmer rolled wool could be used as an alternative.

Sew up the garment using *spun* wool.

A Kiwicraft garments takes approximately the same amount of time as a handspun garment of the same dimensions to complete.

Your Kiwicraft yarn can be crocheted if you so desire, and it is also very suitable for handwoven inlay patterns.

Washing: The garments are almost waterproof in use, but very absorbent and heavy when put into soapsuds, so must be handled carefully when saturated. It is recommended that they be either "spin dried" in a pillow case in a washing machine, or put through the wringer between towels, and dried flat.

Suitability of fleece: Colored and variegated fleeces are very suitable for Kiwicraft, as the method of pulling and rolling allows the garment to be knitted following the natural shadings of the fleece without the sharp transitions of color sometimes evident when a spinning wheel has been used. Chalky or demi-luster fleeces are the easiest to work. Brighter wools will give a more attractive finish but the closer crimp of many of these makes rolling more difficult.

Hints: Powder on the hands will help if the fleece is very greasy. A very dirty fleece should be dipped in hand-hot water and dried on a wire netting frame up off the ground to allow the air to circulate underneath. Use a little lanolin on the lap-sack when rolling a washed fleece.

The advantages of Kiwicraft as a craft are several. First, it requires little equipment, which makes it a very inexpensive hobby. Second, it is a craft for all ages. Children soon become very skilled. Third, Kiwicraft garments are soft-textured, extremely light weight, warm and hardwearing. Their shower-proof qualities make them very popular with sportsmen and with women. □

DESIGNER YARNS: SLUBS & SPIRALS

by Doloria Chapin

Handspinners rejoice! Our present era is the most exquisite period in history for handspinning. Never before have we had such a variety of fibers at our disposal. Fine equipment is available. Good instruction is easier to find—good teachers, good books, fine exhibits and demonstrations.

Whereas, historical threads were evenspun of simple fibers, dyed with natural dyes and then worked as embellishments or fabrics, we can now advance into a higher skill using a good foundation of color and design study, to spin the most beautiful yarns and threads that have ever been made. They are so beautiful they need not even be worked by other textile means, but can be hung or stretched, by themselves, into areas of eye-catching beauty. Modern spinners can spin any yarn or thread for any purpose, except chenille, which is a woven thread. Man-made extruded filaments, cut and crimped, can be handspun, and the monofilaments can be used in plying with handspun threads.

Once the basic spinning techniques are learned, it is exciting to venture into the area of exotic, designer's or fancy yarns, as they are often termed. There are beaded, wrapped, bouclé, mock chain, knopped, cloud, flake, Knickerbocker, diamond, crepe, nub, and slub yarns. Dome are very difficult to do, take advanced skill and considerable time to make. Some of the prettiest yarns are the easiest to do. Some are so simple that beginners do them naturally. Let's start with those. They belong to the **slub** family of yarns.

A slub yarn is one of the most beautiful yarns. It can be varied by diameter, length of slub, size of the *base* thread, color, and fiber. It can be a singles thread or a plied yarn. It can be plied with similar threads, a metallic thread, silk or other luxurious thread, beads, chains, or contrasting colored thread. All undulating, slub, knopped, beaded, flake, cloud, or Scandia yarns should have a uniform base thread. (See Figures 1 and 2.) The undulations or flecks can be scattered, uniformly spaced, or vary in diameter, but the base thread must be constant. This will give a uniform stitch gauge in knitting or crocheting, and an overall texture to weaving.

A slub thread can be used as an accent when the greater portion of a project piece is plainly worked with a uniform thread which corresponds to the base thread or the fancy yarn. The slubs must be planned to come as designed for the area. Slubs are made by most beginners before they learn thread control, so the directions can be simple. The difficulty lies in the proper and intended spacing and size of the slub.

To make it easier, think of your active as the *lead hand*—the one that works closest to the orifice or spindle. (See Figure 3.) The *holding hand* is the one that holds the fibers. Between the two is the *drafting area*. Thread size is determined by the *amount* of fibers drafted or pulled thinner between the two hands. Twist will rush into thinned fiber areas first, but skip over the thick fiber areas when tension is applied to the spinning thread. By controlling the thick and thin area diameters, the slubs can be spaced, shortened, or elongated as desired.

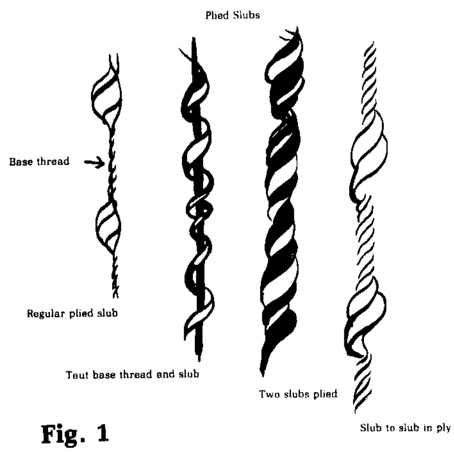


Fig. 1

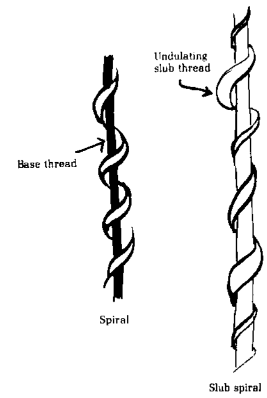


Fig. 2

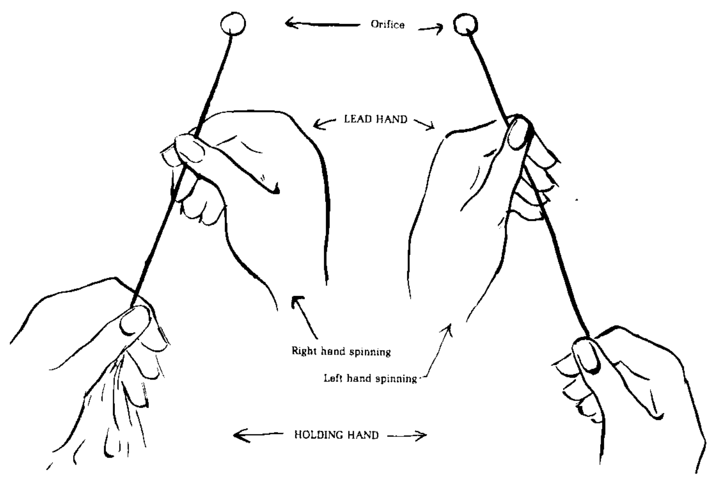


Fig. 3

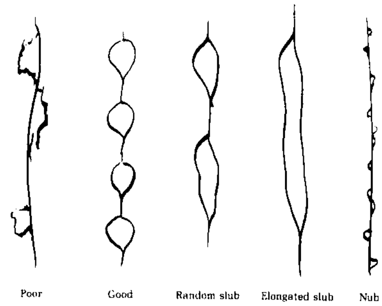


Fig. 4 Singles slub yarns

Different fiber character and construction change the appearance of slub yarns. Combed top or sliver will make a smooth thick and thin thread, while roving or woolen carded rolags made of short, fine fibers, will make a decisive change in the thick and thin yarn appearance. The thicks will be softer and poufier in the latter fiber preparation. Scandia type yarns are one of the most defined of the slub yarns. The Scandias have full, round, short, and smooth lumps at even intervals. They need to be dense, using short, high or medium count wool with 1½" to 2" staple. Card well and roll into a dense unruffled rolag. (See Figure 4.)

It should be easy to proceed to slub yarn spinning once the Scandias are mastered. Simply draft or pull less and less as the twist crawls into the thickening fibers, then draft more and thinly after the slub diameter is reached. This tapers the slub. Work as slowly as possible, allowing time to adjust the fiber bulk diameter. Slubs can be as abrupt or as elongated as you choose.

If there is too much overtwist in the thin areas, try plying with a plain single thread of similar coloring, or a contrasting one. Try a metallic thread for fancy gift wrapping tie yarn. Perhaps a silk thread would do as well on a brilliant or deeply colored wool. The plying allows the overtwist to be reduced, coming closer to a neutral ply. It is important that the finished thread have a neutral ply so it won't need a heavy weight or tight stretching to straighten the yarn during the finishing process. Their beauty depends on relaxed fibers and consistency.

Another slub yarn can be made by the previous directions, but spin the slub thread with an S twist, medium t.p.i. (twist per inch), elongating the slubs considerably. Make the second thread finer, using a Z twist, medium t.p.i. Ply the two by twisting Z. Hold the Z thread fairly taught with the *holding hand*, but rush the fat S thread on rapidly with the *lead hand*. This will cause the S thread to spiral softly around the Z thread. The slubs will fatten, and the undulating slub will give great character to the thread. The even thread will be the base thread in this case for it will be nearly straight while the fat thread spirals.

All sorts of color combinations, blends, and variegations can be used successfully in this yarn. Variations in fiber from one thread to another add interest. Be careful of very contrasting colors because they can give a harsh, spotty look to the thread. Subtle, close color relationships or variegated colors prove more effective. The fine Z core or base thread usually works best if it is darker than the spiral thread. (See Figure 1.)

The last technique continues naturally into the spiral thread family. If two Z threads are plied S to achieve the spiral, one has to be let on much faster than the other, which is tensioned. This makes a more uniform spiral than the one using a slub yarn and/or S and Z combination. However, it is not quite as exciting as those.

Start a spinning thread comparable to a singles for a two or three ply worsted yarn. Once underway, having established a good base thread, start the Scandias by pinching the fingers and thumb of the *holding hand* directly over the undrafted, unspun fibers of the rolag just beyond the twist in front of the V—HOLD! Quickly pinch the thumb and fingers of the *lead hand* over the unspun fibers close to the fingers of the *holding hand*. Pull carefully and gently, but as quickly as you can, while still controlling the fibers; be careful not to slide any fingers on the rolag, nor break the pulled fibers apart. Simply *pinch* and *pull!* Let go quickly with the *holding hand*, keeping the tension with the *lead hand*. The twist will jump over the pinched part and twist rapidly in the pulled part. Place the fingers of the *holding hand* as before, just beyond the *lead hand*. Pull between the two hands to thin the fiber bulk again. Repeat this procedure over and over, taking care to keep the "fat" parts uniform and smooth, the thinned pulled parts uniform. By alternating hands, a rhythm is set up and the spinning proceeds rather quickly.

Adjust your wheel so the wind-on pulls as rapidly as you can spin. Tension periodically to keep the twist uniform. Build only ½" or so, then move thread to a new winding area. Treadle at a comfortable speed to prevent overtwist from developing in the thin areas.

The size of the Scandias (the fat, short slub) is determined by the amount of fibers the fingers pinch. Wherever the pinch shuts off the twist, and the thinned fibers are pulled below, the pinched area will slub. Tiny Scandias are produced by pinching half of the unspun fibers and overlapping the fingers half onto the previously spun thin area. One has to "creep up" with busy fingers, just as they pinch onto the thread. Tiny ones won't show up well during the spinning, but will swell when the tension is off or the thread is plied in a second step. Tiny Scandias can benefit from plying with a very fine even thread or a cotton sewing thread of the same coloring. One caution—determine how large the Scandias can be and still pass through the orifice and over the hooks on the flyer!

Once more I would like to reiterate the fine points of fancy yarn spinning control:

1. Fine thread diameter needs and absorbs more t.p.i. without overtwist than a medium or heavy fiber diameter. The latter can absorb only a very few t.p.i. without overtwist. Where there is a variance between these two extremes in a fancy yarn, the drafting speed must change to keep control.

2. Fine threads need to be drafted to a few fibers and held longer while the twist comes in. The tension on the bobbin must be low in bobbin brake systems, or a fine wheel belt used and tensioned loose enough to allow slippage, for super fine thread spinning. There must be a very high t.p.i. to hold the fibers together. Since the thread is so fine, it can't stand jerking or high tension.

3. Super jumbos need large machine carded batts or double batt rolags in order to keep enough fiber bulk in the draft. Don't thin very much, but force the twist into the thick fiber bulk. Keep at least a finger diameter of bulk as it goes into the twist. Work very rapidly. Prepare the fibers especially well in order to keep a uniform thread.

4. Fancy yarns must have controlled t.p.i. and plying in order to present a consistent thread throughout. Since they are so attractive, mistakes show glaringly.

5. Fancy yarns involve fiber, color and design. A thorough knowledge of color and design can't be over emphasized. It can make or break a well spun yarn. Colors, tones, white and neutrals must balance properly or they will make the yarn monotonous rather than sparkling.

Attractive display and creative uses of these designer yarns are the end result, and everyone loves and appreciates them. They are the next plateau of the spinning art. □

ARANS:
A SAGA IN WOOL

by Lee-lee Schlegel

With the coming of the machine age as well as the world-wide demand for the Aran Island gansey (or Irish fisherman sweater), much deterioration and change has come about over the years. No longer are the ganseys knitted on fine "pins", no longer are they made from the stiff, hairy handspun Connemara and Scottish Blackface wool of yesterday which was spun on the high wheel. No longer is the natural greased "Bainin"* wool solely used, and ganseys scream out every color under the sun. New cables have found their way into the ganseys of today; cables unknown to the knitters of Aran in the past. Worst of all, the machine has been taught to turn out "Aran ganseys" all over the world. The last 20 years have brought great changes to the Aran gansey; changes which have not been beneficial.

It is difficult to achieve a clear-cut picture of exactly when the Aran gansey began. My years of research on the ganseys have been both frustrating and fascinating. If nothing else, they have proven the gansey worthy of study as a fiber art form. We can, however, trace the main artistic elements which have come to make up the gansey as we know it today.

In my research I discovered that the gansey designs mimic much of the early Irish art; in metal, wood, stone and the illuminated manuscripts, especially as the Early Christian Period approached (A.D. 400-A.D. 800). The Aran gansey patterns are cleverly grouped to create sculptured relief designs. They are heavy yet intricate pieces of art reminiscent of all the early Irish art which was influenced by the Celts (400 B.C.-A.D. 400), the Vikings (A.D. 800-A.D.1200), and the Egyptian Copts (A.D. 200-A.D. 1000).

The questions remain, however, as to exactly when these designs and motifs were translated into knitting techniques and when the first Aran gansey actually appeared. This could have been as early as the Celts or could have developed in a much later century (perhaps the 14th to 16th centuries) by simply drawing on past designs and concepts known to the Irish people; designs of the past which had always been a part of their daily visual experiences.

The Aran Islanders themselves feel that the gansey began about 300 or 400 years ago. This seems like a logical time reference and would give credence to the theory of the gansey idea having come from the Channel Islands. Because it is an established fact that knitted cabled sweaters were produced in the Channel Islands of Jersey and Guernsey during the 1500's, it is my feeling that the idea came to the Aran Islands by way of the Channel Islands.

If the idea of the gansey did come from Jersey and/or Guernsey, it soon became totally Irish. Like all early Irish art, ideas were brought from many other cultures and were adopted and adapted by the Irish artists and craftsmen to produce forms and designs that became characteristically Irish. Some of the oldest Aran ganseys available for study (circa 1920) still show a strong Jersey/Guernsey influence in that they are patterned only on the upper portion of the body and the sleeves. Very quickly, however, the patterns and designs spread all over the Aran gansey, reminiscent of much of the early Irish art.

If ever "art for art's sake" were true of anything, it is true of much of the early Christian art of Ireland and the gansey seems to be no different. Much of this art is exceptionally "busy", every centimeter being covered with ornamentation. Like this art, the Aran gansey also benefits from being "busy"—the more intricate the gansey patterns, the more attractive and awesome it becomes. This lavishing of ornamentation is a Celtic trait, and they decorated a surface by ornamenting what was already present for pure aesthetic pleasure.

By Celtic art I mean the non-Classical art so well known in the Celtic lands during the first millenium after Christ, an art not necessarily entirely Celtic in origin but entirely Celtic in treatment and feeling. This art, mainly the intricately woven interlaced element in it, has come and gone from Irish art history since its creation.

This guernsey, from the Channel Island of Guernsey, is in a traditional island style. At one time there were different family, or occupational designs, such as fishermen, farmers, etc. But these different styles are not made today as most knitters make the traditional style which is based on an old composite pattern. This guernsey is simple in design. It shows decorative ribbing and side vents, with gussets at the neck and under the arm and set-in sleeves with the armholes having been cut.

National styles of ornamentation ultimately emerge so full of distinctive details and complexity that to the lay mind they have nothing in common. Yet, it will be found that from the same simple beginnings have sprung the most dissimilar forms of symbolic artistic expressions, be they Greek, Roman, Moorish, Egyptian or Celtic. Ornamentation from any culture is always influenced by many other cultures. The idea of panels of decoration stems back to the Middle Bronze Age in Ireland (circa 1500-1000 B.C.) and was carried forth throughout the following Irish art periods. The Aran gansey, of course, is composed of panels, unlike the Jersey and Guernsey sweaters.

In Bronze Age art (circa 2000-600B.C.), pattern was imposed on a surface to fill a void, but with the coming of the Iron Age and the La Tène influences (Scandinavian), a new order developed and pattern and surface became integrated into an over-riding rhythm of the design. The gansey of today, as well as in the past, encompasses both of these feelings.

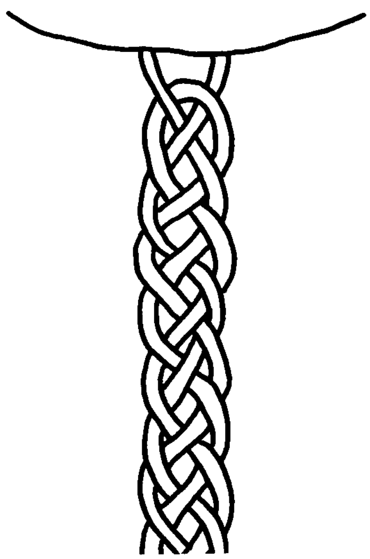
The Early Christian Period of Irish art was composed of two main aspects; one derived from Iron Age motifs, the other of mixed Mediterranean and Northern European ancestry. This second group consisted of interlacements of different types. The most straightforward of these is the broad-ribbon interlace derived from the Coptic and Mediterranean worlds. It is the interlace which we see in the Aran gansey as the complex knitted cable.

A typical Aran gansey using a group of different simple cables, a trellis pattern and a ribbon stitch. This gansey was probably knitted in the early 1950's. Note the many mistakes in the simple cable crossings especially those that are on both sides of the center panel.

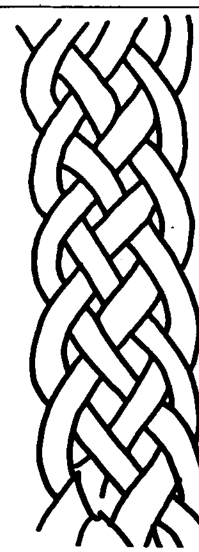
The term "Coptic" is considered something of a catch-all today because of the time span it covers. It does, however, serve to describe the characteristic wool-on-linen woven tapestries, consisting of interlace divided into panels, which were made by the ancient Christians of Egypt from at least the 3rd to the 10th or 11th centuries A.D. The similarity between the Aran gansey and the Coptic weaving is undeniable. Since the Irish adapted many motifs from the Mediterranean in every artistic media, it would have been unusual for them not to also use these designs in their textiles.

Since we know that the Celts knit, we can't help but consider the possibilities of their having used these designs in their textiles. But did the Aran gansey begin with the Celts (circa 400 B.C.-A.D. 400)? Or was the creation of the gansey later influenced directly by the garments which came from Jersey and Guernsey (circa 1600)? Or was it created during the "Celtic Renaissance" (circa 1170-1650) by Irish knitters simply reviving the old Celtic designs in another medium? Questions such as these may never be answered, as documenting a folk art has always seemed unnecessary and perhaps even meaningless.

The people of the Aran Islands are a special people. They live among the rocks and stones, with storms and gales and the sea as their livelihood. Their lives are sparse and their world is barren. They stand at the edge of an unbroken tradition that goes back to the days even before the Celts came to Ireland. It matters not from where the gansey came or when. The Islanders were ready for it, it served their needs; it kept the fishermen warm and dry at sea. The gansey "worked", it was adapted to Irish designs and it was kept. Despite the possible "borrowing", the gansey is now distinctly and truly Irish.



Detail of one type of interlace from the back side of Gaut's stone Cross, Isle of Man. This pattern is almost identical to the Aran Island knitting pattern, the "loose five-strand braid".

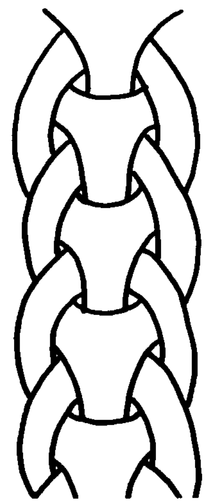


Detail of the broad-ribbon interlace on Christ's robe, bronze Crucifixion Plaque, found in Ireland. This piece of sculpture is dated late 7th century, Early Christian period. Today this design is seen in the Aran gansey as the four-rib knitted braid.

As with much folk art, the Aran gansey's origins, reasons for being and techniques have developed into myths, perpetuated by those wishing it to be so or those who wish to capitalize on a product. It is all important to me, and to the folk art itself, that these myths be dispelled and that the truth, however little of it still exists, be kept in the forefront.

The idea has been put forth, since ganseys became world-known, that each panel of pattern possesses a meaning; that each cable represents some phase of the fisherman's life. It has been stated that the simple cable represents the fisherman's ropes and lines, the knitted zigzag lines represent the stone walls and little paths that cover the Aran Islands, the honeycomb stitch and pattern represents the fruitfulness of hard work, etc. Exactly when or where this began is unknown, but it has no validity from the Islanders' points of view. The Islanders speak Irish, or Gaelic, and it is interesting to note that there are no Gaelic terms for the patterns they use; no meanings, no names. The designs they use are simply designs which are ghosts from their early Irish heritage.

It is often believed that each Aran family has its own patterns, and that drowned and battered fishermen could be recognized and identified by the patterns and designs of their gansey. These patterns were never written down until about 1950, but were passed from mother to daughter verbally and practically. The same patterns and designs would, therefore, have continued within a certain family, but in no way was this intended for the purposes of identification. (The same mistake has been perpetuated concerning the tartans of Scotland. They did not *always* identify a specific family or clan as has been believed.)



Detail of the ring-chain interlace motif on Gaut's Cross (front), Isle of Man. Gaut, the craftsman, was primarily interested in interlace patterns, chiefly the ring-chain motif, of the Scandinavian Jellinge style. All of his patterns have been found in northwest England although his work must have influenced the Irish craftsmen. The Aran Island knitting pattern known as the "horseshoe cable" clearly mimics the ring-chain motif on Gaut's stone cross.

Detail of the central panel of a bronze brooch, textured broad-ribbon interlace (Mediterranean style), dated 6th-7th century A.D. The Aran Braid knitting pattern closely resembles this interlace.

It is interesting to note that these interlaced designs of the Copts and the Celts are very evident in clothing, especially that of Christ's, in Irish sculpture of the 6th to mid-10th centuries. The interlace elements are usually shown in relief rather than incised as tapestry imitation might be; in relief as the designs show themselves in the knitted gansey. It is also of interest to consider that until about 1974, the young boys of the Aran Islands wore "bainin" ganseys for their first communion as well as when a high church official visited the Islands—a monumental religious event for people so isolated from the world. The religious connection of the Aran gansey, the interlaced designs (cables), and the Egyptian Christian Copts can't be dismissed without some thought.

It is felt that the various elements of the Irish Neolithic civilization (before 3000 B.C.) were not conceived primarily as decoration but seem to be in the nature of magico-religious symbols. With this feeling behind the Aran craftsman, he moved into the Christian period still possessing many old motifs and symbols. Perhaps, with the gansey, he still displays folklore terms of his new Christian faith.

Coptic parallels can be found throughout the illuminated manuscripts of Ireland. (The use of a bordered, broad-ribbon interlace can also be paralleled in the Near East.) In this case, however, we need not confine our search for parallels to the manuscripts but can legitimately look to the earlier existing textiles and religious icons for prototypes. Perhaps because of the Coptic type of monasteries on the Aran Islands the islanders eventually adopted the interlace designs to their knitting techniques while using them in all their other artistic endeavors as well.

The Celtic and Coptic interlace continued to be used well into the 14th century. One of the lesser known features of the great Renaissance art of Europe was an interest in simple, uncomplicated interlocked/interlaced patterns. This interlace differed from the Irish interlace but it did move the Irish into reviving their own old interlaced art styles which had faded earlier. This period can justifiably be called the "Celtic Renaissance".

Due to the difficult political situation of the times (circa 1170-1650), these revived art styles seem to have become almost a symbol of nationality. It seems logical that it would have been during this period that the Celtic interlace was put into the Aran gansey if it had not already been done before, influenced directly by the Celts and/or Copts.

The "Celtic Renaissance" flourished briefly and rather pathetically in Ireland, however, and finally ended with the crushing of Gaelic Ireland with the Elizabethan and Cromwellian Wars (early to mid-1600's).

We are forced to leave the possible origins of the Aran gansey with only theories. There is little doubt that a courageous and successful attempt was made to transfer the intricate patterns of the early Irish artwork, influenced by the Celts, the Copts and the Vikings, to knitting techniques. It is unfortunate that, by necessity, exactly when this was done becomes almost irrelevant.

Old ganseys were knitted on four needles, as are the jerseys and guernseys, beginning at the welt and working upward to the neck. The sleeve stitches were picked up around the armhole and knitted down to the cuff. Now most ganseys are done on two needles, the sleeves being either raglan or set-in.

Old ganseys were always pull-overs, different on the front and back, sometimes having buttons across one shoulder. Traditionally, ganseys were of handspun "bainin", but today they are seen in every possible color—a painful experience for the true gansey admirer. The fishermen of the Aran Islands wear ganseys of navy blue (almost black) and once in a while a brown gansey is seen, dyed by local lichens.

The Aran knitter of today fully realizes her commercial value. No longer does she knit her heart and heritage into the gansey, but simply contributes to the family income with her cottage industry. Larger needles are used to speed her work along. There is little pride taken in her work. Cables are used which have been created elsewhere in the world, and the young girls of Aran have no interest in continuing their mothers' business. The Aran Island gansey is dying a fast commercial death.

When we consider that lesser art insights follow profoundly creative works of art (i.e. early Irish art), we must consider the development of the Aran gansey and all its possible influences. Even the vaguest suggestion of a past idea is sufficient to tie a work of art down to something familiar. How can we not include the Aran gansey in an overview of Irish art?

While I was with the people of the Aran Islands I had the feeling that it really didn't matter if their traditional stories of the gansey are the stuff of legend rather than history. What is important is that the Islanders have known an unbroken folk memory reaching far back into the past to which they still hold. It is more than a memory, in fact it is an immediate reality, a person-to-person contact. The Aran Islanders have become the caretakers of the Celtic heritage and somewhere, sometime, the caretakers of the gansey.

Knitting the Aran Patterns

The Aran gansey frightens many knitters; it's seeming complexity is over-powering. When it is broken down into its individual components, however, it is no longer complex or frightening.

When working an Aran gansey, consider the separate panels rather than the whole. Work each panel of pattern as if it stood alone.

All of the general knitting rules also apply to Aran knitting. Gauge is extremely important, however, as cables "take up" much more than in straight knitting and different cables will take up at different rates. It is wise to measure often while working an Aran gansey. Making swatches of the cables before beginning the actual gansey is necessary when designing yourself.

When using your handspun wool for an Aran gansey or any other garment, there are several things to keep in mind:

1. It is best to use a plied yarn rather than a single. This will counteract any overtwist in the yarn and will help to conceal any irregularities.
2. Because of the unusual elasticity of handspun yarn, a larger knitting needle will produce a more suitable fabric. Too small a needle will make a hard, stiff garment. Usually a #7, #8, or #9 knitting needle is best.
3. When blocking, as with any wool garment, extreme care must be taken not to stretch the garment when wet. Preshrinking of the handspun yarn will help tremendously when blocking and lessen shrinkage.

Here are knitting instructions for creating some traditional Aran Island cables, those that mimic the early Irish art in other media.

The Horseshoe Cable

Panel of 12 stitches.
Rows 1, 3, 5, and 7: K2, P8, K2 (wrong side of work).
Row 2: P2, sl next 2 sts. to dpn. and hold in back, K2, then K2 from dpn; sl. next 2 sts. to dpn. and hold in front, K2, then K2 from dpn.; P2.
Rows 4, 6, and 8: P2, K8, P2.
(Repeat Rows 1-8.)

The Four-Rib Braid

Panel of 17 stitches.
Notes: Back Cross (BC): sl. 1 st. to dpn. and hold in back, K2, then P1 from dpn.
Front Cross (FC): sl. 2 sts. to dpn. and hold in front, P1, then K2 from dpn.
Row 1: (K2, P2) twice, K1, (P2, K2) twice (wrong side of work).
Row 2: P2, K2, P2, sl. next 3 sts. to dpn. and hold in back, K2, sl. the P st. from dpn. back to the left-hand needle and P it, then K2 from dpn.; P2, K2, P2.
Row 3: Repeat Row 1.
Row 4: P2, FC, BC, P1, FC, BC, P2.
Row 5: (K3, P4) twice, K3.
Row 6: P3, sl. next 2 sts. to dpn. and hold in back, K2, then K2 from dpn.; P3, sl. next 2 sts. to dpn. and hold in front, K2, then K2 from dpn.; P3.
Row 7: Repeat Row 5.
Row 8: P2, BC, FC, P1, BC, FC, P2.
Row 9: Repeat Row 1.
Row 10: P2, K2, P2, sl. next 3 sts. to dpn. and hold in front, K2, then sl. the P st. from dpn. back to left-hand needle and P it, then K2 from dpn.; P2, K2, P2.
Rows 11-16: Repeat Rows 3-8.
(Repeat Rows 1-16.)

The Loose Five-Rib Braid

Panel of 18 stitches.
Notes: Front Cross (FC): sl. 3 sts. to dpn. and hold in front, K2, then sl. the P st. from dpn. back to left-hand needle and P it, then K2 from dpn. Back Cross (BC): sl. 3 sts. to dpn. and hold in back, K2, then sl. the P st. from dpn. back to left-hand needle and P it, then K2 from dpn.
Row 1: (wrong side) and all other wrong-side rows: K2, (P2, K1) 4 times, P2, K2.
Row 2: P2, (K2, P1) 4 times, K2, P2.
Row 4: P2, K2, (P1, FC) twice, P2.
Row 6: Repeat Row 2.
Row 8: P2, (BC, P1) twice, K2, P2.
(Repeat Rows 1-8.)

The Aran Braid

Panel of 12 stitches.
Rows 1 and 3: K2, P8, K2 (wrong side of work).
Row 2: P2, (sl. 2 sts. to dpn. and hold in back, K2, then K2 from dpn.) twice, P2.
Row 4: P2, K2, sl. 2 sts. to dpn. and hold in front, K2, then K2 from dpn.; K2, P2.
(Repeat Rows 1-4.)

CREATIVE KN

Hand-crocheted wool bubble by Ilka Suqrez.

Reversible wool coat with coyote trim by Monique Recant for Mr. Laurence.

The notion that handspun yarn should be put to special use is not a new one to most handspinners. In fact, most spinners choose their fibers and spin their yarn to suit the end project. But, how creative are these resultant articles? Handspinners producing their own yarns, whether they are "plain" or "fancy", are partaking in the creative "design" process. But, often the creativity stops after the yarn is spun, since the spinner knits the yarn into someone else's pattern.

A look at some free-spirited and handsome knitwear from four knitwear designers should give any spinner-knitter's needles a nudge. The garment industry depends to a large extent on individuals to constantly present new fashion ideas. Knitwear designers usually handknit the original garment which is then duplicated in either hand or machine knits for the mass market or specialized purchasers. These photos are from the files of Woolknit Associates, Inc., a non-profit New York City organization which promotes the use of wool for knitwear. They demonstrate the imaginative use of wool yarns by the knitwear designers.

***Have you done some original designing for the use of your handspun yarns? If so, we would like to hear about them!

ITWEAR

Crocheted vest over hand-knit singlet and warm-up hose, and crocheted cap by Joan Vass

Spin·Off Suppliers' Directory

KEY

E = spinning equipment
F = spinning fibers
0 = other (specified) items
info = information
n/c = no charge
SASE = self-addressed stamped envelope

UNITED STATES

ALASKA

Fairbanks 99701. The Spinning Room, SR Box 40751, (907) 456-7610. E, F; catalog SASE.

ARIZONA

Camp Verde 86322. The Brewery Gulch Spinster, Box 428, (602) 567-4900. E, F; catalog SASE, samples $2.

Mesa 85207. Designs by Parsons, 8402 E. Mangun Rd., (602) 832-5910. F; catalog n/c. See ad p. 64.

Tempe 85281. Fibres & Dyes Ltd., 19 E. 7th St., (602) 968-8861. E, F.

Tucson 85718. Fibre Fantasy, 6431 N. Placita Quicoma, (602) 299-0114. E, F; $1 yarn samples, SASE spinning fibers. Samples.

CALIFORNIA

Albion 95410. Jan Tarr Wool Imports, P.O. Box 164, (707) 937-0377. F. See ad p. 64.

El Cajon 92020. Spin It-Weave It, 840 Leland Pl. Catalog $1.

Encinitas 92024. The Black Sheep, The Old Market, 1010 First St., (714) 436-9973. E, F; catalog $1; samples $1.

Eureka 95501. The Woolmark, 322 Fifth Street, (707) 442-9272. E, F; catalog $1; samples n/c.

La Jolla 92037. Lambswool, 2158 Avenida de la Playa, (714) 459-9982. F; 0 (off-loom weaving supplies, classes); samples & info $.50.

Manhattan Beach 90266. Lydia Hillier—Weaving Spinning Supply Corp, P.O. Box 85, (213) 540-0695. E; catalog $.50. See ad p. 9.

Oakland 94618. Straw Into Gold, 5533 College Ave., (415) 652-SPIN. E, F; catalog $1.

Oakland 94618. Osage Handspun Yarn, P.O. Box 2903. F; info SASE; samples $1 refundable on 1st order. See ad p. 63.

Oroville 95965. The Shuttle Stop & Wool Shed, 700 Montgomery St., (916) 533-7069. E, F, 0 (weaving & natural dyeing supplies); catalog SASE.

Pinole 94564. Clemes & Clemes, Inc., 650 San Pablo Ave., (415) 758-2036. E, F; catalog n/c; samples $1. See ad p. 6.

San Diego 92104. Spin It-Weave It, 2621 University Ave., (714) 444-1820 or 291-SPIN. E, F; catalog $1.

San Jose 95128. The Walking Wheel, 2498 Stevens Creek Blvd., (408) 297-9276. E, F; samples

SASE. See ad p. 64.

San Mateo 94403. Sheep to Shawl, 9-37th Ave., 573-8200. E, F; samples SASE.

Santa Cruz 95060. Bette and Bernard Hochberg, 333 Wilkes Circle. E, O (books). See ad p. 64.

Santa Monica 90405. Weaving West, 2305 Main St., (213) 399-6063. E, F.

Tarzana 91356. Select Books, 5969 Wilbur Ave., (213) 344-5894. O (books); catalog n/c.

Walnut Creek 94596. Fibrous Beginnings, 1733 N. Broadway SP, (415) 935-3611. E, F; catalog $1.

COLORADO

Aurora 80012. Country Fair, 840 S. Havana, (303) 341-9713. E, F; info SASE to Country Fair, P.O. Box 22503, Denver 80222. See ad p. 65.

Berthoud 80513. The Oak Shop, 1600 W. County Rd. 10E. E, F; info SASE. See ad p. 64.

Boulder 80306. Juniper House, P.O. Box 2094. O (books). See ad p. 64.

Denver 80210. Skyloom Fibres, 1905 S. Pearl, (303) 777-2331. E, F.

Fort Collins 80524. The Wool Works, 220 Linden St., (303) 484-2590. E, F; samples SASE.

Palisade 81526. Forte Fibers, P.O. Box 818, (303) 464-7397. F; samples $2. See ad p. 63.

Sedalia 80135. Wild & Wooley Fibers, 1376 S. Perry Park Rd., (303) 688-4387. F; samples $.50. See ad p. 64.

CONNECTICUT

Avon 06001. Book Barn, P.O. Box 256. O (books on spinning, weaving, dyeing); catalog $.75.

East Lyme 06333. S & C Huber Accoutrements, 82 Plants Dam Rd., (203) 739-0772. E, F; catalog $.75; samples $2.

FLORIDA

Orange Park 32073. Linda Snow — Fibers, 3209 Doctors Lake Dr., (904) 264-4235. E, F; catalog $.25; samples $.75. See ad p. 8.

Orlando 32803. The Blooming Leaf, 1810 N. Orange (305) 898-9791. E, F. See ad p. 66.

Tallahassee 32312. The Weaver's Shed, 1415 Timberlane Road, (904) 893-2665. E, F.

Tallahassee 32303. Spin'n Dye, 5005 Stoneler Rd., (904) 576-9516. E, F, O (custom handspinning instruction, books); catalog $.30 stamp.

ILLINOIS

Bishop Hill 61419. Bishop Hill Coverlet Workshop, Box 25a, (319) 263-1425. See ad p. 65.

Carbondale. Fibers Plus, 207 S. Illinois St., 549-2431. E, F; samples & info $.50.

Des Plaines 60016. Serendipity Shop, 1523 Ellinwood, (312) 297-8094. E, F; catalog $1. See ad p. 4.

Edwardsville 62025. Cheshire Looms, 534 Trails End, 288-7364. E, F; info SASE.

INDIANA

Bloomingdale 47832. Down Home Herbs, Earth Senses & Natural Fibers Co., Rt. 2, Box 89, (317) 498-1060. E; catalog SASE.

IOWA

Ames 50010. Fibers to Fabric, (515) 232-5331. E, F; catalog SASE; samples $1. See ad p. 67.

West Amana 52357. Reeves Woodworks, Box 34, (319) 622-3395. E; folder SASE.

KANSAS

Lawrence 66044. Yarn Barn, Box 334, 730 Massachusetts St., (913) 842-4333. E, F.

Peabody 66866. Jones Sheep Farm, RR2, Box 185, (316) 983-2815. F, O (spinning lessons); samples $3.

KENTUCKY

Bradfordsville 40009. Indian Valley Spinning Wheels, Box 17, (502) 337-3268. E. See ad p. 11.

LOUISIANA

New Orleans 70118. Weavers Workshop Ltd., 716 Dublin St., (504) 866-0820. E, F.

MAINE

Penobscot 04476. Spring Ledge Farm, R.D. #1, Box 222, 326-4430. F.

Scarborough 04074. Oak Hill Greenery and Yarn Room, Box 128, (207) 883-5424. E, F.

Yarmouth 04096. Martha Hall, 46 Main Street, (207) 846-9334. E, F; catalog SASE. See ad p. 68.

MARYLAND

Keymar 21757. Red Rock Farm, Rt. 2, Box 262, (301) 845-8744. F.

MASSACHUSETTS

Acton 01720. Reeds, Weeds & Whistles—The Journey Wheel, 29 Main St., (617) 263-0493 (appointment only please). E; catalog n/c.

Amherst 01002. Webs, Box 349, (413) 549-5863. E; catalog n/c.

Boston 02111. Frederick J. Fawcett, Inc., 129 South St., (617) 542-2370. E, F. See ad p. 10.

Braintree 02184. Kiwi Imports (Kamac Krafts), P.O. Box 372. E, F, (617) 848-8741. E, F; samples $.50. See ad inside front cover.

Hardwick 01037. Charity Hill Farm, (413) 477-8542. E, F; catalog & samples $1. See ad p. 65.

Marion 02738. Channing Books, P.O. Box 552, 35 Main St., (617) 748-0087. O (books); catalog SASE. See ad p. 65.

MICHIGAN

Ann Arbor 48104. A Periodical Retreat, 336½ S. State St., (313) 663-0215. O (books & periodicals on weaving, etc.); catalog SASE.

Ann Arbor 48104. Wild Weft Yarns, 415 N. 5th, (313) 761-2466. E, F; samples SASE.

Dowagiac 49047. The Meisterheim's, 32457 Dixon St., (616) 424-5722. E, O (spinning, repairs); catalog n/c.

E. Lansing 48823. Something Special, 5400 Park Lake Rd., (517) 351-6726. E, F; catalog n/c. See ad p. 65.

Freesoil 49411. The Linden Tree, Dept. SO, 491 E. Colburn Rd. O (bookplates). See ad p. 7.

Gobles 49055. The Weavers Web, R. 1, Box 264 28th Ave., (616) 628-4019. E, F; info SASE.

Monroe 48161. RR Spinning Wheel Shoppe, 712 E. Elm Ave., (313) 242-0617. E, F; catalog $.50.

Northville 48167. Traditional Handcrafts, 154 Mary Alexander Ct., (313) 349-7509. E, F; catalog n/c. See ad p. 2.

Romeo 48065. Arachne's Web, 110 W. St. Clair, (313) 752-6022. E, F. See ad p. 66.

Shelbyville 49344. Golden Grain, R. 1, (616) 664-4792. E, O (custom work & repairs); catalog SASE.

Spring Lake 49456. Guild of Shaker Crafts, Inc., 401 W. Savidge Ave., 846-2870. E; flyer n/c.

Tecumseh 49286. Spin-A-Weave, 102 W. Chicago Blvd., (517) 423-6218. E, F; info SASE.

MINNESOTA

Barnesville 56514. Stevens, "Lindgard", R. 2, (218) 863-5648. F; info SASE.

Dent 56528. Oak Stream Studio; Carl & Brenda Ekstrom, Rt. 1, Box 116, (218) 758-2803. F, O (black sheep); catalog SASE; samples SASE.

Henning 56551. Sammen Sheep Farm, Rt. 1, (218) 583-2419. F; samples SASE.

Minneapolis 55414. Wool-N-Shop (North Central Wool Marketing), 101 27th Ave., S.E., (612) 338-1813. E, F; catalog $1; samples $1.

MISSOURI

Columbia 65201. The Weavers' Store, 110 N. 10th St., (314) 442-5413. E, F; catalog SASE; samples SASE.

MONTANA

Great Falls 59403. Two Bobbins Full, Third Level, Old Milwaukee Depot, (406) 452-1841. E, F; catalog $1 + SASE.

Missoula 59801. Joseph's Coat, 131 W. Main, (406) 549-1419. E, F.

NEBRASKA

Omaha 68134. Great Plains Fleece, P.O. Box 34068, (402) 571-1573. E, F, O (dyes, mordants, books); catalog & samples $.50. See ad p. 68.

NEW HAMPSHIRE

Henniker 03242. The Fiber Studio, Foster Hill Rd., (603) 428-7830. E, F; catalog n/c; samples $.25.

NEW JERSEY

Chester 07930. Silver Crown Farm, Rd. 1, Box 363, (201) 879-5746. F; catalog $1; samples $1/card. See ad p. 65.

Clinton 08809. Adventure Hill, Box S-264. O (books). See ad p. 63.

Clinton 08809. Fibre Crafts, 38 Center Street, (201) 735-4469. E, F, O (books, dyes).

Kingston 08528. WoodsEdge Wools, P.O. Box 464, Laurel Ave., (609) 921-3466. E, F; catalog $.75; samples $2 for 2 reference quality sample cards. See ad p. 67.

Lebanon 08833. Oldebrooke Spinnery, Inc., RDI Mountain Road, (201) 534-2360. E, F; catalog $1. See ad p. 65.

Princeton 08540. The Sheepish Grin, 7 Chestnut St., (609) 924-YARN. E, F; catalog $1; samples $1.

Pt. Pleasant Beach 08742. Weavery, 801 Richmond Ave., (201) 899-1166. E, F; catalog $.50.

River Edge 07661. Sheep to Shawl, 902 Kinderkamack Rd., (201) 265-5974. E, F.

Vineland 08360. The Craftsroom, 1852 Joel St., (609) 691-7459. E. See ad p. 66.

Voorhees 08043. The Merri Weaver, 1112 Rowand Court, (609) 772-2165. E, F; catalog SASE. See ad p. 68.

NEW MEXICO

Albuquerque 87107. Las Pajaritas Studio, 6901 Guadalupe Trail NW, (505) 344-5773. E, F.

Albuquerque 87107. Village Wools, 3719 Fourth NW, (505) 344-3184. E, F; catalog $.75; samples listed in catalog. See ad p. 6.

Los Alamos 87544. Salamander Clay and Fiber, 111 Carlsbad-White Rock, (505) 672-3675. E, F: samples $.50.

Santa Fe 87501. Arachne FiberArts, Inc., 217 W. San Francisco, (505) 982-1602. E, F; samples $1. See ad p. 66.

NEW YORK

Buffalo 14207. U.S. Depot, Gerald H. Whitaker Import, 155 Great Arrow Ave. E, F; catalog n/c; samples $6.

Cobleskill 12043. Dutch Barn Weave Shop, RD #1, Box 281, (518) 234-7946. E, F.

Earlville 13332. The Shuttle Shed, E. Main St., RD 1, Box 180, (315) 691-2491. F; Catalog SASE; samples SASE.

Fabius 13063. Doloria M. Chapin American Traveler Spinning Wheel, 2178 Pompey-Fabius Rd., RD #1, (315) 677-3837. E. See ads p. 2 & 67.

Hermon 13652. Simply Natural, RD #1, Rt. 23, (315) 347-3071. E, F; catalog SASE; samples $2. See ad p. 67.

NORTH CAROLINA

Chapel Hill 27514. Bluenose Wools, 409 W. Rosemary St., (919) 967-1157. E, F; catalog SASE.

OHIO

Kent 44240. Wild & Wooly, 1509 S. Water St., (216) 678-3224. E, F; info SASE. See ad p. 67.

Leetona 44431. Midway Mfg. Co., Box 55. E; catalog $.50. See ad p. 66.

Lewis Center 43035. Homespun FiberArts, 1550 Lewis Center Rd., (614) 548-6189. E, F; catalog $.50 (deductable from 1st order); samples $.25 (deductable from 1st order).

Rocky River 44116. Weaving and What-Not, 19285 Detroit Rd., (216) 333-5334. E, F.

OREGON

Bandon 97411. Westerly Webs, First & Chicago, P.O. Box 1388, (503) 347-3682. E, F.

Beavercreek 97004. Bernalou Rosebrook, P.O. Box 46, (503) 632-3122. F; samples large SASE.

Corvallis 97330. Entropy Farm, 6660 Reservoir

Rd., (503) 929-5622. F.
Port Orford 97465. Siskiyou Spinning Wheels, Star Route, Box 131, (503) 332-4783. E.
Portland 97214. Crisp Woodworking Concerns, Ltd., 333 SE 3rd, (503) 238-0503. E; catalog $.75. See ad p. 3.
Portland 97219. Obadiah Tharp Company, 8406 SW 58th Ave. E; catalog $.15. See ads pp. 66, 67.
Scio 97374. Hungry Hill Homespun, 39918 N. Ruby Loop, (503) 394-2731. E, F; samples $.50.

PENNSYLVANIA

Chambersburg 17201. Runtee Fiber, 620 Broad St., (717) 263-9722. E, F; catalog & samples $3.
East Berlin 17316. The Mannings, R.D. #2, (717) 624-2223. E, F; catalog & rug wool samples $.50; complete fiber samples $1. See ad p. 4.
Philadelphia 19127. Wilde Yarns, 3705 Main St., (215) 482-8800. E, F; samples $1. See ad p. 2.
Troy 16947. Fallbrook House, RD 2, Box 17, (717) 297-2498. F; catalog & samples $2. See ad p. 68.

SOUTH CAROLINA

Greenville 29601. The Weaver's Knot, 121 Cleveland St., 235-7747. E, F; catalog & samples n/c. See ad p. 67.

TENNESSEE

Nashville 37212. Rippy Associates Textile Crafts, 1903 21st Ave. South, (615) 383-8485. F; samples SASE.
Sevierville 37862. Joyous Song, Rt. 6, Bradley Chapel Rd., (615) 453-6670. E, F; catalog $.50 + SASE.

TEXAS

Dallas 75251. Las Manos, Inc., 12215 Coit Rd. in Olla Podrida, (214) 661-3695. E, F; samples $1.
Lubbock 79410. Beck's Warp 'N Weave, 3021 34th, (806) 799-0151. E, F; catalog $.50.
Richardson 75080. Spincraft—Col. (Ret.) J.A. Ronin, P.O. box 332, E, F; info n/c. See ad p. 68.

UTAH

Salt Lake City 84102. Intertwine, 101 Trolley Square, 363-9305. E, F; catalog $1; samples $1.

VERMONT

Winooski 05405. The Joys of Wool, 7 West Canal St., (802) 655-3580. E, F; Catalog $.50.

VIRGINIA

Chester 23831. Weaving Lady Studio, 4001 Cresthill Road, (804) 748-7575. E, F, O (Cheviot lamb fleece); samples SASE.
Timberville 22853. The River Farm, Rt. 1, Box 169A, (703) 896-9931. E, F; catalog n/c; samples $1 for fleece & $1 for handspun. See ad p. 8.
Virginia Beach 23462. Handweaver, 340 Coventry Road, (804) 497-1461. E, F.

WASHINGTON

Kelso 98626. Heritage Handweavers, 1619 N. Holcomb Acres Rd., (206) 423-9016. E, F; samples $1. See ad p. 68.
Seattle 98109. Pacific Search Press, 222-B Dexter Ave. N. O (books). See ad p. 9.
Puyallup 98371. The Country Weaver, 105 Meeker SW, (206) 845-7852. E, F, O (dyes & mordants); info SASE.
Seattle 98166. Seattle Spinners Supply, 16059 19th Ave. SW, (206) 242-3030. E, F; catalog n/c; samples $1.
Seattle 98105. Weaving Works, 5049 Brooklyn Ave. NE, (206) 524-1221. E, F; catalog $.25; samples $.25. See ad p. 68.
Tacoma 98466. Fibers Etc., 7216 27th , (206) 565-5280. E, F. See ad p. 69.
Tacoma 98402. Phantasmagoria, 311 South 11th, (206) 383-2041. E, F, O (books); catalog $1.

WEST VIRGINIA

Green Spring 26722. Whitehorse Mountain Woodworks, P.O. Box 23, (304) 492-5098. E; catalog n/c. See ad p. 67.

WISCONSIN

Antigo 54409. Sheepy Hollow, Rt. 1, Box 247, (715) 627-7980. F.

Johnson Creek 53038. V&E Wrensch Ranch, Rt. 1, (414) 699-2996. F; samples SASE. See ad p. 69.

Madison 53703. Weaving Workshop, 817½ E. Johnson St. E, F; catalog $.25.

Prairie Du Sac 53578. Cheshire Studio, 363 Park Ave. E (imported English wheels), F; info SASE.

Washington Island 54246. Sievers Looms, Dept. IN. E; catalog SASE. See ad p. 69.

CANADA

ALBERTA

Lethbridge T1J 2L2. Your House, 418 9 St. S., (403) 329-1854. E, F. See ad p. 69.

BRITISH COLUMBIA

Surry V3S 2N3. Patrick Green, 15459 84 Ave., (604) 596-8119. E (carding machines); catalog n/c. See ad p. 69.

North Vancouver V7G 1M9. Handicraft Hut, 461 Dollarton Hwy., (604) 929-2616. E, F; catalog, info. See ad p. 11.

Richmond V6X 2Z8. Craft Cottage, 7577 Elmbridge Way, (604) 278-0313. F; catalog with samples $2. See ad p. 8.

Vancouver V6R 2G5. Romni Wools & Fibres, 3779 W. 10th Ave., (604) 224-7416. E, F; catalog n/c; samples $10 for full set or individual pieces. See ad p. 5.

NORTHWEST TERRITORIES

Grise Fiord X0A 0J0. Grise Fiord Eskimo Co-operative. F (musk ox wool).

ONTARIO

Carleton Place K7C 3P3. Dutch-Canadian Spinning Wheel Co., Box 70, (613) 257-2508. E; catalog n/c. (Wholesale only.) See ad p. 7.

Elmwood N0G 1S0. The Wolery, (519) 364-1669. E; samples $1 refundable with 1st order. See ad p. 69.

Mississauga L4V 1K6. Gerald H. Whitaker Import, 6291-9 Dorman Road. E, F; catalog n/c; samples $6. (Also depot in Buffalo, NY.)

Waterloo N2J 4A9. Kiwi Imports (Kamac Krafts), Box 431. E, F;, (519) 884-1751. E, F; samples $.50. See ad inside front cover.

ENGLAND

East Sussex. Hedgehog Equipment, Forest Craft Centre, Upper Hartfield, phone-Forest Row (034282) 2686. E, F; samples $2 each (bills only). See ad p. 69.

Northwich, Cheshire. Eliza Leadbeater, Rookery Cottage, Whitegate, phone 0606-882879. E, F; catalog $1 surface, $2 air (cash, no checks); samples $7 (full fibre range). See ad p. 69.

NEW ZEALAND

Ashburton. Ian Baynes Furniture, Box 227, 109-11 Wills St. E; brochure n/c. See ad p. 8.

Auckland. Cambridge Wools Ltd., Box 2572, phone 30769. E, F; catalog n/c; samples n/c.

Auckland. Pipy Craft Ltd., 228 Wellington St., Howick, phone 53-42231. E. See ad p. 5.

Christchurch 1. Kamac Krafts, P.O. Box 13055, Armagh. E, F; samples $.50. See ad inside front cover.

Fielding. Hiamoe Fleece, No. 6 RD, phone 713 Colyton. F.

Te Horo. Wally & Joan Gordon, P.O. Box 42, phone 3215 Otaki. F. See ad p. 69.

SCOTLAND

Fife KY14 7ST. Haldane & Co. Ltd, Gateside, Cupar. E; catalog n/c. See ad p. 11.