

interweave

Volume IV, number 1 Winter 1978-79



NATIVE AMERICAN TEXTILES: AN HOMAGE

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interweave

volume IV, number 1

winter 1978-79

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INTERWEAVE PRESS

About the cover: *Blanket in the Sky, With Diamonds*, from the series, Ghost Rugs, by Janusz Kozikowski. See page 24.

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from the editor:

As I was getting together the material for this issue, my second-favorite magazine, *Quest*, came in the mail with a special section on "The American Indian Mind". The section consisted of a collection of short excerpts from a lot of different sources, and one particularly snagged my attention. It's from *Sacred Circles: Two Thousand Years of North American Indian Art*, the catalog to an exhibition that appeared last year in Kansas City. In the introduction, Ralph Coe comments:

American Indian art celebrates the continuity of a land mass and man's absorption of its features in a way that few European art forms do. A European handbag, although it may have a floral design, does not express the forest like an Indian pouch or shoulder bag does. Indian art expresses something quite different: as an amateur ornithologist I was once aghast at the ceremonial use of wrapped bird skins, lovingly decorated with colored wool or beads, grasses, glass, and rock, and even scalps in medicine bundles, but I feel very differently now. By subtly altering, decorating, formalizing, and packaging these materials the perception of the quality and role of plant or animal life as man's spiritual accompaniment is enhanced. Compare that to putting feathers in a lady's hat; one is meditative formalism, the other just decoration. Indian art evokes a living treasure: nature. Its aesthetic draws us close to the earth.

Coe is speaking more of ritual art objects than utilitarian craft objects, yet it seems

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environments and belief systems of their creators, let us appreciate them in that light.

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IMPORTANT NOTICE

You probably noticed right away that this issue says "winter 1978-79" on the cover, and you're probably saying to yourself, "what happened to the fall issue?" Well, this is it, but we changed its name. Our fall issue has always come out in mid-November; I don't know about your part of the country, but here in northern Colorado fall is long gone by then. And since we've become chronically a couple of weeks behind schedule (due to *Spin-Off*, *Convergence*, inertia, etc.), we decided to just change the season name and move the publication time forward by half-a-month. That means from here on, you can look for the winter issue the first of December, the Spring issue the first of March, Summer in June, and Fall in September. **PLEASE NOTE:** *The volume and number haven't changed, so your subscriptions will still run for the same number of issues that you've already paid for. We are not skipping an issue.*

We're also succumbing to huge increases in paper costs, postage, all the things publishers gripe about, and raising the subscription rate to \$10/year beginning with the next issue. One year \$10, two years \$18, three years \$25. You're welcome to renew now to beat the increase, but we can't accept subscriptions for more than three years in advance. —ed.

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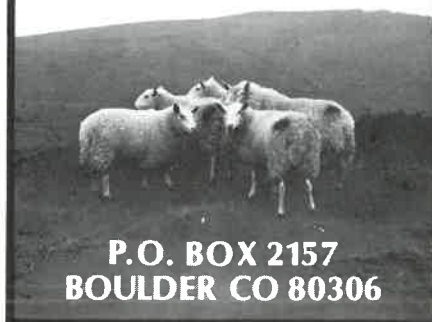
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BOUNCE BACK

The article on me (*Interweave*, May, 1978) was most flattering—except for a *real* boo-boo, which I probably said but I'd like to correct it, or everybody who knows better will realize what a nut I can be! Anyway, on p. 14, paragraph 6: "But they didn't have white sheep in Iron Age Denmark." Preposterous—of course they did! How else would they have had plaids? Bronze Age, ok—but not Iron Age...

Violet, the sheep in your picture, is no more. You remember she had a broken leg—she stumbled and broke another. No sheep can get by on two! But Bill Dyer brought me three good ones—black—to cheer me up.

Anne Blinks
Carmel, California

Thanks to Susie Brock, St. Paul, MN;
Edna Healey, Laguna Hills, CA; and
Connie LaLena, all of whom wrote
concerning Edna Davidson's "thing" in
the August issue of *Interweave*. From
Connie's letter:

The mysterious "thing" that Edna Davidson found attached to the top of her Swedish loom looks to me like the countermarch overhead jacks. That is to say, her loom's shedding mechanism. The jacks pivot on the center round pegs (most looms now use metal pegs or bolts). The removable pegs at the far ends of the jacks merely serve to hold them in place while the loom is being tied up. I couldn't tell from the photograph, but each of the "inside boards" should have a hole drilled clear through each end: these holes accommodate the cord which is tied to the harness sticks (shafts) and the lamms. There are ten sets of jacks, so

the loom has a ten shaft capacity. The whole business sits flat on top of the loom—mine has notches which rest on top of the side supports on the top of the loom. I can't quite figure why the countermarch frame has the side supports which stick out so far from the front and back boards of the frame, but I'm sure that for that loom, there is a very logical explanation. Perhaps it makes the width of the countermarch frame adjustable so that more jacks can be added. There are very good diagrams of countermarch mechanisms and how they work in Worst's *Foot-power Handweaving*, in the *Manual of Swedish Handweaving* by Ulla Cyrus, and in *Looms 'n Yarns'* pamphlet, *Countermarch Explained*. . . .

Connie LaLena
Grand Junction, Colorado

Edna Healey adds, "The jack type loom is most popular today, but can't hold a candle to the countermarch loom in my opinion."

We've just settled into Jakarta and I'm anxious to begin natural dyeing my 8 Wyoming fleece I brought with me. I took Anne Bliss's workshop in Casper and am grateful for the thorough lessons as I'm on my own now to try the many and varied tropical plants right in my own yard.

If you know of any dyeing books pertinent to this part of the world I'd appreciate a mention of them in one of the forthcoming issues.

Leslie Lingley
Jakarta, Indonesia

Can any readers direct Leslie to good Asian dye literature? - ed

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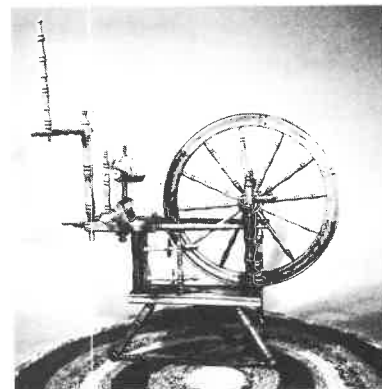
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news&events

1978 was an important year for the development of regional fiber organizations. Major conferences included the Midwest Weavers and the Northern and Southern California Conferences; first-time meetings were held in Georgia, Missouri and Arizona.

The Arizona Meeting was a convocation of eight guilds from all over the state. Held at a Scottsdale resort, the three-day event included workshops and lectures, demonstrations, guild and commercial exhibits, a fashion show, and juried exhibit.

Keynote speaker was Kaethe Kliot with commentary on contemporary lace.



Left: From the Arizona Conference juried show: coat by Shirley Millsap, liturgical robe by Carol Munson, and rag rug by Clara Papenhagen.

Right: On the runway—handspun cotton dress by Kathy Mincer, painted-warp stole by Carol Colburn.

The juried show was representative of the state of guild weaving in Arizona—relatively conservative, loom-controlled, impeccably crafted, and with an emphasis on handspun fibers. Subtlety was the word for Marilyn Gilsdorf's handspun cotton Swedish lace yardage, as well as Harry Linder's two small, framed studies in handspun, weft-faced pattern weaving. Traditional flat tapestry was evident in several entries; Mary Dieterich's *Wood Ibis* was notably delicate and well-crafted. Carol Ann Munson's ikat dyed chasuble was striking in its simplicity. Fashions shown at the Sunday morning brunch emphasized utility and grace.

Next year's conference will be hosted by the Flagstaff guild, and is expected to be a craft-in in the woods of northern Arizona.

The Southern California Handweavers Conference is set for March 6-11, 1979 at the Santa Maria Fairgrounds. Pre-conference workshops are scheduled for March 6-8, with the conference to meet on the 10-11. Guest speaker will be Nell Znameiowski. Write Minor Terry, 812 East Mill Street, Santa Maria, CA.

The Michigan League of Handweavers will meet June 8-10, 1979, to hear major speakers Gerhardt Knodel, Naomi Towner, and Lois Vann. Workshops following the conference will be conducted by Towner, Brigita Fuhrmann, Kathryn Lipke, Nancy Lyon and Ed Lambert. Write MLHC, 2612 Englave Drive, Ann Arbor, MI 48103.



Craft Range Magazine is a new regional expansion of the former Colorado Artist-Craftsman newsletter, published in Denver by Carol Maree Hoffman. *Craft Range* will cover craft news in the mountain-plains region; the first issue included a special focus on northern New Mexico crafts, along with regular news, events, features, and calendar. The bi-monthly magazine is available at \$10/year (\$2/issue) from 6800 West Oregon Drive, Denver, Colorado 80226.

Among the 41 craftsmen selected for NEA Craftsmen's Fellowship grants are fiberists Cornelia Breitenbach, Los Angeles; Kris Dey, Los Angeles; Sheila Fox, East Setauket, NY; Carol Goss, Boston; Michael James, Somerset Village, MA; and Gary Trentham, Opelika, AL. Claire Zeisler represented

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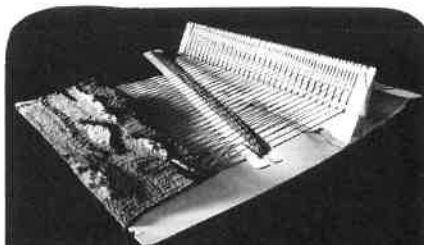
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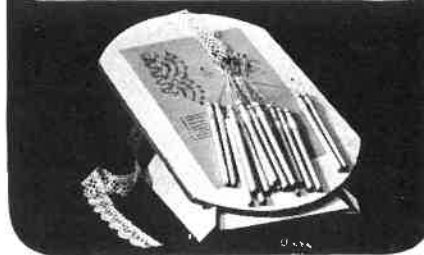
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fibers on the panel of six which reviewed some 10,000 slides from over 1400 applicants.

A new two-year program in Crafts Management is being offered by North Country Community College, Saranac Lake, New York, under the directorship of fiberist and teacher Nina Holland. For further information, write Mrs. Holland at NCCC, Malone Extension Center, 101 East Main Street, Malone, NY 12953.

Twentieth Century Lace is the theme of an upcoming tour of Czechoslovakia, Yugoslavia, Austria and Hungary which will be led by Jules and Kaethe Klot in May, 1979. The 16-day study tour will include museums, schools, workshops, ateliers, special exhibits, and collection opportunities; it promises unusual opportunities to learn about the flourishing art of contemporary lace in eastern Europe.

Silk screen printing and weaving are on the curriculum for 10 week sessions at the Craft Center, 25 Sagamore Rd., Worcester, MA 01605. Classes are scheduled to begin on January 29 and April 9.

Six sessions on the business of crafts has been on the agenda at the School of

Arts and Crafts, Portland, Oregon. Weekly panel discussions and lectures have covered such topics as business practices, copyright and contract law, and marketing. These offerings reflect a growing concern that craftsmen have training in sound business practices. For information on future offerings from the school, write 616 Northwest 18th Avenue, Portland, OR 97209.

The fall catalog from Fiberworks, Center for the Textile Arts, includes a wide variety of course offerings, seminars and workshops by 31 teachers. For catalogs, write Fiberworks, 1940 Bonita Avenue, Berkeley, CA 94704.

SHOWS, FUTURE

A second annual *Mini Tapestry Exhibit* is being sponsored by The Gathering of Kansas City, Missouri. Entries for the juried show (either slides or actual pieces), must be submitted by February 1, 1979. Works must have been executed within the last two years, and may not exceed 12" x 12". Write for a prospectus from The Gathering, c/o Mini Tapestry, 919 West 44th Street, Kansas City, MO 64111.

Objects '79 Designer-Craftsman Show will be juried this year by Rose Slivka, editor of *Craft Horizons* magazine. Application deadline is March 30, 1979; write *Objects '79*, Western Colorado Center for the Arts, 1803 North 7th Street, Grand Junction, CO 81501.

All surface design techniques on fabric or related materials are eligible for submission to *Surface Design '79* at the School of Art Gallery, Kent State University. Open to residents of IL, IN, IA, KS, KY, MI, MN, MO, OH, PA, WV, and WI, slides are due by January 15. Write Lynette Janke-Weber, "Surface Design '79", School of Art, Kent State University, Kent, OH 44242.

The Craft Center of Worcester, Massachusetts, announces its 9th annual craft fair on May 19-20, 1979. Five slides and a \$5.00 fee should be submitted by February 1, 1979, to Craft Center Fair, 25 Sagamore Road, Worcester, MA 01605.

The *Marietta College Crafts National '79* is set for October 27-November 25, 1979. Write MCCN'79, Arthur Howard Winer, director, Marietta College, Marietta, OH 45704.

Jockey Hollow Gallery, a new craft shop-gallery in Morristown, New Jer-

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THE BASIC BOOK OF TWINING

Esther Warner Dendel. Drawing on the ancient craft of basket-twinning, the author shows you how to make baskets, bags, dolls, a pillow, a necklace, collars, a rug, and much more. She clearly presents all necessary information and techniques—materials, securing warps, hand motion, tension control, braiding, lattice and warp twining. With precise, illustrated, easy-to-follow instructions. 100 pages, 8 x 11, 16 color plates, 196 black-and-white illustrations, \$7.95 paper, \$12.95 cloth.

LOOM CONSTRUCTION

Jeri Hjert and Paul Von Rosenstiel. Here are easy-to-follow, illustrated instructions for building an inkle loom, a tapestry frame, two different four-harness table looms, and a four-harness jack-type floor loom. Clearly presented with 160 measured line drawings, this explicit book also shows you how to build shuttles, a weaver's bench, and other accessories. No involved carpentry is required. 144 pages, 7⅞ x 10¾, 160 measured drawings, 47 halftones, \$7.95 paper, \$11.95 cloth

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Jackie Battenfield. Ikat is the technique of tie-dyeing yarns that produces patterns with characteristically blurred edges in the woven fabric. Jackie Battenfield describes and illustrates ikat with numerous examples of both traditional and modern patterns. She gives you up-to-date information on color mixing, and tells you how to develop the necessary dyeing skills. 102 pages, 8¼ x 9¼, 100 halftones, 16 color plates, \$11.95

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Max Simmons. Here is a beautifully illustrated book for craft dyers, both beginners and advanced. It describes the methods used to color the main textile fibers, using both natural dyes and commercial dyes. All the recipes have been tried and tested in modern dye houses—although some of them are more than 200 years old. Also includes detailed methods for testing color fastness and washability. 96 pages, 5½ x 8½, 28 color photographs, \$4.95 paper

TRIBAL RUGS

Jenny Housego. The superb weaving traditions—both flat-woven and knotted pile—of the most important Iranian tribes are shown and described in this beautiful volume. The author explains the basic techniques and design elements, and paints a fascinating picture of rug weaving as an integral element in the life of the tribes. 180 pages, 8¼ x 8, 136 plates (36 in color), \$7.95 paper, \$14.95 cloth

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Else Regensteiner. Now in paperback, this best-selling guidebook for weavers who know the basics is once more available. Else Regensteiner—often called "the first lady of weaving"—describes and illustrates a wealth of beautiful projects for home furnishings, clothing, toys, wall hangings, and sculptural effects. Hundreds of exciting weaves are illustrated. 144 pages, 346 illustrations, 16 color pages, \$9.95 paper

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sey, invites professional craftsmen to submit slides to director Kathryn McGuire at 985 Mount Kemble Avenue, Morristown, NJ 07960.

SHOWS, CURRENT

Fiber works by Elinor Evans, Ann Matlock and Margaret Sheppard are included in *Texas Crafts*, a touring exhibition of craft work and slide presentations of the artists in their studios. The exhibition, which presents objects from 17 contemporary Texas craftsmen, was juried with function as a primary criterion. "The works are beautiful and sometimes unusual, but all are of the highest quality, and they are usable," comments Michael Metyko, curator of the exhibition. The exhibit will be on tour through June, 1979.

Fiber sculpture by Joyce Campbell is being featured at The Fiber and Print Works Gallery in South Pasadena, California, through December 24.

Textile constructions by Kris Dey are on display at the Allrich Gallery, 2 Embarcadero Center, San Francisco during November.

Woven Colorscapes by Carolyn Thompson are on display through

January 3 in the Santa Barbara Museum of National History Gallery.

Singular Expressions at The Elements Gallery in Greenwich, Connecticut, includes landscape tapestries, pillows, and wearable art by Marcia Phillips. Subtle colors and textural interests hallmark her work. Also at The Elements during October were ikat wall cloths by Susan Goldin. Working in fine silks and rayons, Goldin's hangings capture "special quiet moments" suggestive of sky, sea, and contours of the land.

"Fiber Forms '78", embracing current work by artists living in a broad sweep of middle and southern states, opened to the public at the Cincinnati Art Museum July 15 through August 13.

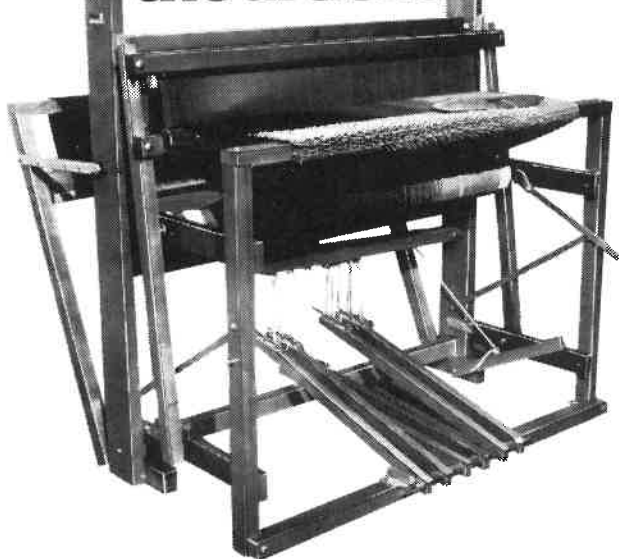
This major exhibition of fiber art featured 65 works by 39 artists from the area between Pennsylvania and the Rockies and including the southeastern coast. The works were selected by the Weavers Guild of Greater Cincinnati, sponsors of the exhibition with the cooperation of the Museum. The opening of "Fiber Forms '78" coincided with the Midwest Weavers Conference at the University of Cincinnati.

"Although styles, concepts and materials appear in exciting variety in works by fiber artists today, a new formalistic sense is shared now in contrast to the extremely tactile and less structured works of the late '60's and early '70's," said Beverly Semmens, guest curator and member of the Weavers Guild. Ms. Semmens is Associate Professor at the University of Cincinnati.

A renaissance in use of natural materials could be seen in some works, for instance "Grape Vine Basket" by Dorothy Gill Barnes of Worthington, Ohio, and a return to historical weaving techniques in others while at the same time some artists used exotic manmade materials, such as mylar and lurex, or adapted looms to original and innovative purposes. "The level of craftsmanship throughout was of the highest quality," Ms. Semmens said.

Working with the Weavers Guild in planning and installing the show was Carolyn Shine, the Museum's Curator of Costume, Textiles and Tribal Arts. "It has been very exciting during recent years to see the art of manipulating fibers burst out of the traditional boundaries of two dimensional textiles into a wider context where it now

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From "Fiber Forms '78": foreground on low stand, Knitted Forms by Ruth Kuo; left to right, Kentucky Image: Fence by Arturo Sandoval; Black and White Movement by Silvia Heyden; Shroud IV Llorona by Joan Lintault; Encapsulation I by Beverly Semmens; and Spiral Environ by Jon Wahling.

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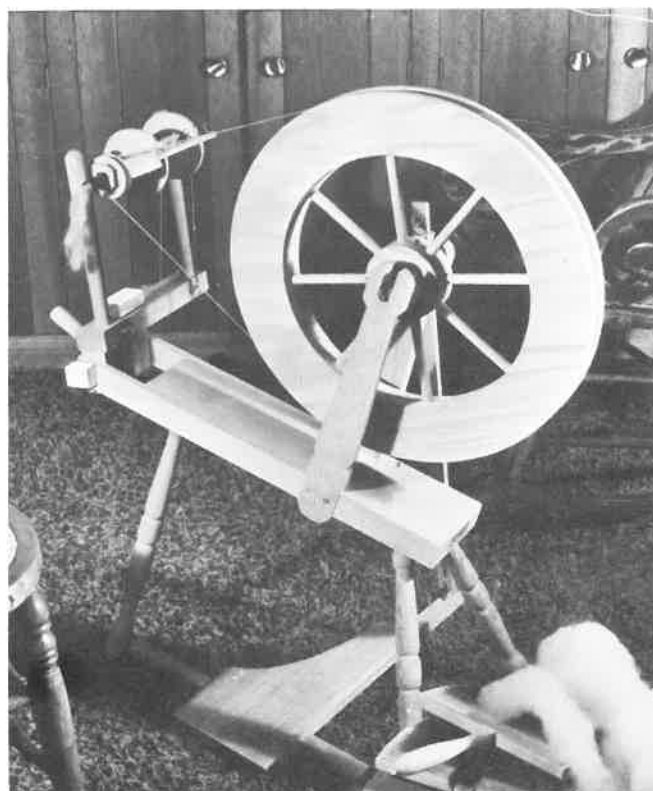
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meets painting and sculpture on equal terms," Ms. Shine wrote in her introduction to the checklist.

Although many of the works were wall hangings, others like Gary Trentham's linen baskets were designed to be viewed in the round and possessed true sculptural quality. Some pieces were conceived with practical purposes in mind, such as the crocheted "Baroque Cloak" by Susan Lathrum, of Menomonee Falls, Wisconsin, and others with a cheerful tongue in cheek, as the tiny "Constellation Container" by Jan Hoffmann of Cincinnati, a coiled basket from which small stars escaped.

Heightening the variety of the works was their range in size. Jon Wahling's "Spiral Environment" incorporated nine and a half foot hangings suspended from the ceiling in five separate groupings, while another work by Ms. Hoffman, "Red Hot Pot" was three inches high and two inches in diameter. Among the large works was M. Joan Lintault's "Shroud IV Llorona" (96" x 72"), made of woven strips imprinted in part by a photo process.

The new Albuquerque Museum is scheduled to open in late June of 1979 with a major New Mexico crafts invitational exhibit. Final selections are

now being made for *One Space, Three Visions*, which documents the three major cultural thrusts to be found in contemporary New Mexican crafts. Traditional Indian, traditional Spanish, and contemporary work will be included; purchase funds from several grant sources will enable the Museum to make a number of works part of their permanent collection. A major catalog is being prepared for national distribution.

The Acadian Weavers and Spinners Guild will sponsor a Blue Ribbon show on March 17-18, 1979, at the Howard Johnson Conference Center, Lafayette, Louisiana. Open to all weavers and spinners. Write Anne Shirley, 109 Templeton Drive, Lafayette, LA 70508.

The Tucson Handweavers and Spinners Guild presents its first public juried exhibition, *Tucson Fibers '78*, at the University of Arizona Student Union gallery November 30-December 13. Handspun and handwoven pieces ranging from traditional functional to experimental have been juried by Harry and Olive Linder.



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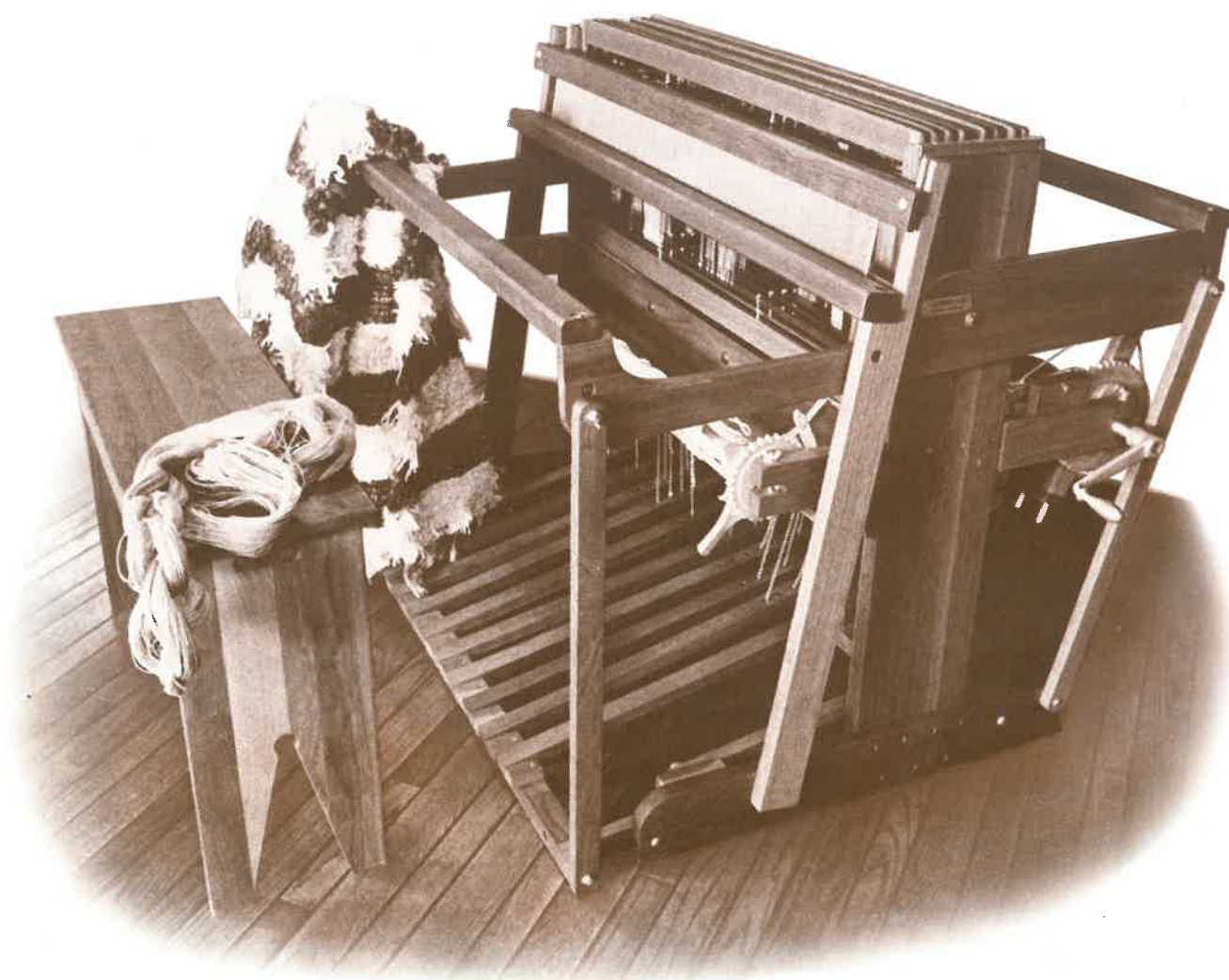
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lorraine martiniuk ling has more in common with e.e. cummings than lower-case letters—she, too, is a poet, as well as a weaver and former ranch hand and teacher. lorraine lives near Mission, British Columbia, and has been spinning, dyeing and weaving since 1971. A current project is translating some of her poems into visuals ("a very slow and difficult process," she notes). lorraine's article on Salish weaving (p. 38) grew from her contact with those who are keeping the craft alive in the Fraser Valley along the Canadian border.



Betty Atwood is a native Vermonter with a great love of the American Southwest. An associate professor of textile design at the University of Vermont, Betty spent her sabbatical in 1972 as well as a summer research fellowship in 1977 studying prehistoric textiles in New Mexico. Some of the fruits of her investigations are found in the article on p. 20, where ancient techniques are given contemporary applications. Betty holds an MS in art education from the Rhode Island School of Design, and has shown and taught throughout the Northeast.

Noël Bennett's life on the Navajo reservation began in 1968 when her then-physician husband joined the Public Health Service. In Tuba City, Shonto and Gallup she studied under 19 different weavers, among them Tiana Bighorse and Helen Tsinnie, learning, over a span of ten years, everything from shearing, spinning and dyeing to the actual weaving. Noël now lives in Corrales, New Mexico, where she continued to weave, teach and write. Her *Working With the Wool*, a collaboration with Tiana Bighorse, is a classic in its field; *Designing With the Wool* is due out from Northland Press soon. Noël holds an MA from Stanford and has taught at Notre Dame and the University of New Mexico.



Ramona Sakiestewa, author of the article on p. 34, is a Hopi whose Indian heritage and childhood as the step-daughter of a Navajo trader and rug

expert have led her to a career in studying, producing and preserving Pueblo textiles. Mona has worked on the staff of the Museum of New Mexico and on the state's art commission; she has taught Navajo and Pueblo weaving throughout the Southwest.



There are often a lot more people behind the making of a magazine than those who get bylines. For instance, for the Cherokee basketry article beginning on p. 28, I must thank Kenneth Foster of the Cherokee Arts and Crafts Commission, who spent most of a day transporting me through the hills and hollows of northeastern Oklahoma, and all the people I met there who shared their work; Betsy Olson of the Gilcrease Museum in Tulsa, who kept calling back right up to press time with fascinating bits of information she had turned up; Steven Richmond of the Indian Arts and Crafts Commission in Cherokee, North Carolina; Isabel McIntosh of the Philbrook Museum; Dr. Garrick Bailey of Tulsa University; and Marty Hagerstrand of the Tsa'la gi Museum, all of whom were generous with their time and information on what proved to be a pretty elusive subject.

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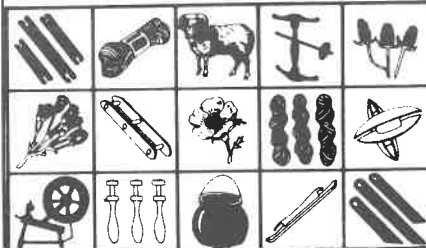
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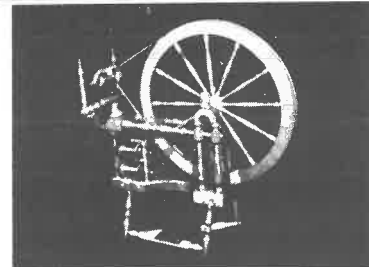
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I am a Navajo. My name is Tiana Bighorse Butler. I am 58 years old. My hometown is Tuba City, Arizona. I went up to the 9th grade in the Tuba City Boarding School. Then my mother got sick. I have to take care of her for a whole year. I'm her only daughter and I got three brothers. There was nobody else to take care of her. Two very important things I learned from my mother: cooking corn flour in the Navajo way, and how to weave a rug.

The year I took care of my mother I learn something about my great grandmother and the culture she carried on for us to use in our lives. That is what my mother wanted me to learn. She felt that I should have an education and

she blamed it on herself that mine had stopped. She said, "I got sick. That is why you miss all these school years." But I love her so much. I just quit school to take care of her. Good thing I did, she lived for just a few more years.

From the time I was little my mother was always weaving. My mother used to weave big rugs and she especially liked to make the Storm Pattern design. Five feet by seven feet was her regular rug size. When I was seven years old, I started to help her weave. I would sit by her and fill up the space where she left it for me. I could do this just in the plain areas. I thought I was doing it to see if I could; and my mother thought I was just playing around. But pretty soon I could really do it good and I began to get very interested in weaving. Finally she show me how to put the yarns in to make design, and how to hook yarns together. I have a hard time with that hooking at the edge of the design.

I started school when I was eight years old. My mother put me to school then and after that I have to go to school all the time. When I come home in the summertime, I help her with the weaving. One summer she told me to learn how to card wool and spin it. I have to do it by myself. She said, "I will not be by your side all your life—spinning wool and carding wool for you. You have to do it by yourself." I did learn it and I learned how to dye wool. I have to know by lifting the wool, how much dye to put in. I sometimes make a mistake. That is how you learn something—if you know where you make a mistake.

I dye with plant dyes. Some of the plants are hard to get and you have to know which plant to pick so you will get certain colors that you want. Some plants grow on the mountain and some grow on the mesa and some in sandy places. They all make nice colors.

My mother didn't put up a small loom for me to learn. She just tell me to sit by her and help her with what she is weaving. She likes to weave big rugs. She was a fast weaver and spinner. One day I decided to put up my own loom. Without her help I put up the warp and started my own loom. My mother was very proud of me. Finally I finish my own rug. It was a big one. I did it without nobody's help. I think to myself, "I have made it." I used to just think about the design I am going to make. I just put it in my head—just count the warps, tie a string on the middle warp, measure bottom to top, and make a dot at the middle. Then when you weave your design to the middle, the design will reverse. If you don't make the mark, the design might be crooked.

My mother died when I was twenty-two years old. This weaving had been coming through the family a long time before that. It was a century ago that the weaving was coming through my mother's family.

It is good to know how to weave and it is satisfying. But you have to learn how to be patient—you have to sit in one place and weave all day. And the spinning and carding is just the same, too. You have to sit there making yarn for your rug.

When I was raising my children I didn't have a regular job. I just weave. I buy food and clothing for them. I called it working. It's just the same as working eight hours a day. I think it's important to learn weaving and the Navajo culture. The culture has been good to me. I've been weaving all these years now, and I support myself all this time.

My mother used to teach me how to spin good yarn, and how to pack the yarn tight in weaving. She always said that the rug should be well-beaten with the fork. If you weave it well, it will last a long time. No matter how big the yarns you are using, the rug should be well-woven.

I follow her instructions, even now. My weaving is always well-packed and each design I use is special. The design I like to do most is the Storm Pattern. There is a story to each part of the Storm Pattern. There are four squares at the corners which they say are the four sacred mountains that divide the Navajo reservation. Going to every square you can see lightning. And there is a design like a diamond that they call starts and there is a water-bug too. The gray is always on the background; that is the sky.

Nowdays they make lots of design in their storm patterns. But I still like the old-fashioned design that is simpler. That is the kind I make.

I know four different kinds of weaving: regular weave, a spotted weave, double-weaves, and the two-face-double-weave. Besides rugs I also make purses with woven straps, saddle blankets, and the old style dress that the Navajo women used to wear a long time ago. The two-face and double weave I learned from my friend Noel Bennett.

Once you know how to weave a regular weave and how to count the warps, then it's not too hard to learn the different kinds of weaving. The regular weave uses two shed sticks for your warp; the other kinds of weaving take four. And the tools you use when weaving are hard to get. They should be tough so they won't break. Everything for the weaving should be tough—even the ropes, the wires and the warp should be tough.

When you begin to make a rug you have to decide what kind of rug you're going to make and how big: a floor rug or a wall rug. The floor rug must be strong and thick; the wall-rug can be thinner. Then you card some wool for warp and spin it into thread on the spindle. You have to know how many spindles-full will make a big rug. I know two of my spindles full of warp will make a saddle blanket 30" x 60". I know also that this will take a whole week to do.

Next card the wool for your yarns and spin them the way you want them: skinny or fat. It takes quite a while to spin them and put them into skeins. Then you can dye the white ones whatever colors you want.

If you want to use the plant dyes you have to hunt for the plants. It takes longer to dye with the plant dye than the store dye. The plants you have to boil all day; the store dye is all ready to use.

When you decide on the design you want to make, just think about it. I don't draw my design. I just think about it in my head. You can weave faster that way.

My mother also taught me how to weave neat. When you make a mistake you just have to take it out. And when you pound your yarn down with your fork, she always said not to leave any yarns hanging down. That makes your weaving look bad. And she taught me how to use strong yarns throughout—none of the cotton string that will break. If one of the warps break you have a hard time tying it back. Her warps that she spun never broke—they were spun so strong.

My mother used to tell me all the stories about how the weaving started a long time ago. She said that my great grandmother said that the weaving comes from the Shell-Woman. There is also a song that is called the Weaving Song, and a song for carding and one for spinning. My mother used to sing while she is weaving. She said these songs comes through the family generations. It started from my great-great-grandmother.



Nowdays there is lots of different kinds of design. But I still remember those old designs that my mother used to make. I like to weave these designs so they will not be forgotten. It used to be that the people relied on weaving more. People used to make their own dresses and weave their own blankets. They make it thick to keep warm in it. All the families know how to weave in those days because they need something to wear for themself, and blankets for the family.

After that the government gave them clothes and blankets and food. From then on the weaving started to go away. Just a few families didn't forget to weave. My great-great-grandmother was one of them. She didn't forget. It is a great contribution to us that she carried alone this great culture for us in the family. My mother have four sisters. She was the only one that cared for weaving. She liked it and weaving was the only way for her to support us and herself.

I am very grateful about my great-great-grandmother. In those days it was hard to weave. There was a lot of fighting going on on the reservation. The cavalry was all around. People just hid themselves in the mountains and wove. They make dresses and blankets. Because of the fighting they had to weave quick. That's why the dresses had no design in it and the blankets were made with stripes. There was always somebody to stand guard for them.

My great-grandmother always said that even in those days with all the fighting going on, they didn't forget the "Weaver's Path". You always have to put it in before you finish the rug. Just put the yarn all the way across. No matter what color you put in, just weave it all the way across two or three times. The "Weaver's Path" is very important to weavers.

Learning how to weave came through to my grandmother, to my mother and to me. I think the main thing you ought to learn first is to have lots of patience—to sit in one place every day till the weaving is done. You do the same way carding and spinning—just sit there till you have enough yarns to use.

After the year when I was with my mother, taking care of her, she taught me how to cook corn-flour the Navajo way. My father used to plant lots of corn and we dry them for winter. First I started grinding corn with two rocks that the Navajos use. The bottom one was 12" x 17" and 4" thick. The top one was 3" x 12" and 3" thick. It was as wide as your hand. The first time I tried grinding it was very hard for me. I have blisters on my hands. The next time I try it I do it better. But it is too hard and it takes too long to make the flour real fine.

When you cook the corn-flour you have to have boiling water ready. You also have to have twelve sticks that are tied together to mix with. These are the special things you have to have in your hand when you are cooking corn-flour. I cooked for my mother every day for the whole year. Sometimes I make a mistake and she just told me to do it again.

Cooking with corn-flour is just the same as learning how to weave. In weaving you have to have a lot of special things on hand. If you don't have them you can't make the rug. It takes too long to cook with corn flour when you have to grind the corn first. It's no wonder these days that Navajos don't want to cook corn-flour. Weaving is like that too.

I am very grateful about my weaving. I makes lots of friends by weaving a rug for them. There is one person in particular that came into my life through weaving. We became good friends and she was very interested in weaving. She wanted to learn how to weave. I think to myself that no non-Indian would like to weave so I started teaching her how to spin and card—and then to weave. I was so surprised she learn everything at once. Her name is Noël Bennett. After all these teachings we both agree to write a book about weaving. We both work on it. It take us two years to complete. The book is published and we share the money. The book's name is *Working With The Wool—How To Weave a Navajo Rug*. It is the weaving that makes our friendship close to each other. I know it is a great book for the young generation. They are using our book to teach children in the boarding schools, and even college students, too.

My mother used to tell me not to forget all these things she taught me. She said, "Keep the spindle and carders in your hand; don't ever store them away. Someday you will live on it. You will need it in your living way."

I promised my mother I would never set aside what a great culture she taught me.

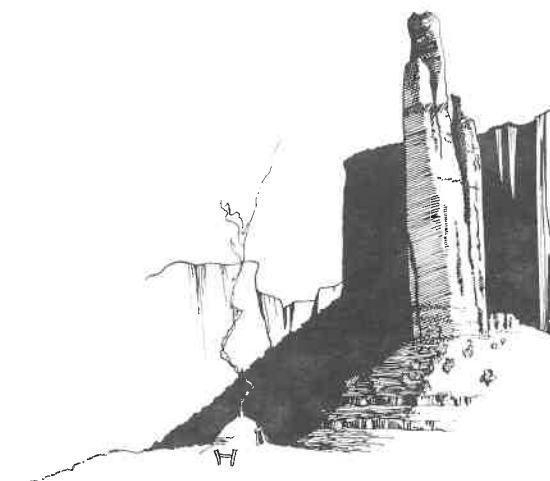


*Above: Lilly Nez, spinning in hogan.
Left: Tiana Bighorse.*



Photography by John Running





From Designing with the Wool

by Noel Bennett

Upper left: Vera's mother with Navajo spindle.
 Lower left: Vina with first rug on loom.
 Below: Helen Tsinnie of Tuba City with Storm Pattern on the loom.



Deep in shadow the woman stood motionless—dark hair, dark skin, dark eyes heightening obscurity. Across her velvet blouse arms folded tightly. Beneath her satin skirt feet were planted firmly. I found myself there before her—feeling as an intruder—and suddenly quite unsure as to why I had ever come.

"You're here on an important mission," I reprimanded myself, impatient at my sudden reticence. "This is your chance to find someone to teach you to weave!"

Navajo weaving! Here was a beauty I felt strongly drawn toward. Here was a process I urgently wanted to learn and to integrate within. My physician-husband, just out of internship, had joined the Public Health Service. We were in Tuba City, Arizona. On the Navajo Reservation! This was my chance—if only I could find someone to teach me.

"She speaks good English," the words from the day before rang in my ears. It was Clara, her daughter-in-law, who had assured me. "She speaks good English. You ask her," she had prodded. And so, clinging to this encouragement I had come now to pose the question.

To look at her at this moment was to disbelieve she spoke at all. Her expression was neither one of welcome nor unwelcome. I estimated her age somewhere in the early 50's—and yet timeless. Clara had said she would ask first. Had she forgotten? Or had she asked and the weaver said "No"? Again I looked to the face for an answer, but the expression lent no cause for hope.

The hogan behind was handhewn of cedar and lovely. The earth beneath was red and hard where many feet had trod. The curious expressions of her children and grandchildren now fronted a circle—staring at the stranger who had unexpectedly appeared in their camp.

Trying to formulate the words, I reasoned my alternatives. She looked too traditional to speak English. Of course, if this were so, words would be useless anyway, I reminded myself. On the other hand, suppose she *did* speak English and Clara *had* asked her. Well, then she would already know why I had come. And again words would be superfluous! A smile seemed the only remaining course of action.

It was a difficult smile to find and slow in coming. But this time as I looked up, the shadowy visage cleared, revealing a nicely featured face—not particularly friendly,

but not unfriendly either. And most of all it was a wise and clear face. I felt my smile broaden.

For whatever time the situation required, I awaited her response. And it came. It came with a change of expression, a shift of weight, and then a crossing of the well-trod earth to a near-by corral. With economy of motion, she reached forth removing a sheep-skin that hung casually atop the rail. And in that simple gesture a shimmering of golds, browns and rusts—like the sun, earth and bodies themselves—were brought to life. Her weaving rose unveiled before me.

It was a textural masterpiece, the whole. Even. Clear-featured. Definitive. Like the weaver herself. I stepped forward to admire. My fingertips scanned the surface. I could feel the lanolin of the raw wool and the rhythmic joints perfected from years of repetition.

"It's beautiful!" I blurted out. "Clara said you were a good weaver and you are!" It was an impulsive, spontaneous reaction. It was a statement of pure fact. The kind requiring no reply. But an answer came nonetheless. It was spoken after the proper period of silence. It was spoken haltingly by one unsure of the vocabulary—but spoken by one willing to try, and in English: "I should be. I've been weaving since I was seven."

Such was my introduction to Tiana Bighorse: Halting, unsure, but positive. And later, when I *could* find the words to ask if she would teach me, her reply was equally to the point: "How long do you have to learn," she stated.

Knowing that the family would be in Tuba City for at least two years, there seemed no need for further thought. But I waited my proper period of silence, trying to repress the confidence I felt toward the answer to follow. I formulated the simplest, least embellished response: "Two years." But her clouded expression did not change and I found myself quickly and unexpectedly adding, "Will that be enough?" Eyes were shifted down. Lips were still. The transient expression that had clouded her face had vanished and her face was void once again. She had returned to her former position encased in hoghan shadows. Eternity lapsed before I received the considered reply: "Perhaps."

It has been nine years since that meeting day. Many times I have relived those moments, recalling her economical choice of words. They were uttered by one who had been weaving for half a century to a stranger just wanting to undertake the craft. And with the passing of time I have come to further understand their Truth; two years has *not* been enough!

During the years 1967-1976 Tiana Bighorse was one of many weavers who took me under wing to teach me Navajo weaving and Navajo way. In fact, during the family's time in and around the reservation, about 20 different women made their rounds—checking on The-Doctor's-Wife-That-Weaves; patiently showing, correcting, advising. At one point Tiana Bighorse mentioned she had always wanted to learn the Diamond Twill. Surprised that a weaver of her competence didn't know the method, I inquired. Her answer echoed what other weavers had already said: the Navajo are "stingey" with their knowledge.

The concept of "stinginess" is quite understandable when one considers the context. In this culture of unwritten language, knowledge is selectively handed down, difficult

to come by, highly prized. Not available from books, learning can be acquired only by apprenticing to One-Who-Knows-And-Is-Willing-To-Impart. This is generally possible only from a close relative and at great personal expense. Additionally, since "to teach" means "to show", and words of instruction are few—much perseverance and dedication are required of the learner. Under this system, it takes years to obtain any real understanding and once acquired, this hard-earned body of knowledge—now a form of power—is in turn not freely given.

Tiana Bighorse had always wanted to learn the Diamond Twill. Since it was not in her mother's repertoire, the technique was not passed along in her "formal weaving instruction". There *was* an aunt, however, who could weave that way. On several occasions Tiana Bighorse had visited her and indicated an interest in learning. On one occasion, she had even been permitted to watch her weave. But the process was complicated and not evident from the surface—and naturally her aunt never offered an explanation! On another occasion she again broached the subject of learning, only to have a cousin intervene with the suggestion: "Make her give you all her jewelry and *then* show her how!" "So," Tiana Bighorse concluded, "I never learned."

Needless to say, when I offered to show her both the Diamond Twill and the Two-Faced, she was an avid learner and her appreciation was obvious. To her, it was a fulfillment of a life-long wish. And as for me, I was only too glad to put something back into the reservoir from which I had so constantly drawn.

Years have passed. Friendships and trusts have strengthened. Together our dreams have budded and blossomed. What started as a wish to preserve Navajo weaving techniques for younger generation Navajo girls has far exceeded our expectations. In 1971 Tiana Bighorse and I co-authored *Working With the Wool—How to Weave a Navajo Rug*. Since that time the book has been reprinted six times, and its use is now widespread: in reservation boarding schools, at Navajo Community College, at the University of New Mexico in Gallup, and well beyond. It is with great satisfaction to both of us that we have seen weaving circles and universities throughout the country recognize the beauty of Navajo weaving and identify with the process.



Noel Bennett and Tiana Bighorse at the time their book, *Working With the Wool*, was published.

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WEFT WRAP OPENWORK

by Betty Atwood

Weft-wrap is a very unusual and little-known hand-weaving technique that seems to be unique to the prehistoric Southwestern United States. Unlike many other weaving techniques in the Southwest, its counterpart has not been found in Mexico, Central or South America. Archeologists have known about the technique for many years and drawn it out in many fine diagrams. Few handweavers have heard of it or practiced its intricacies until recently, however. I became intrigued with it several years ago when I first saw examples of it both at Montezuma and Tonto National Monuments in Arizona. The examples of it are not numerous because of the fragility of the material—primarily cotton. It has been found in sites in Arizona and New Mexico but most commonly in southern Arizona where conditions of dryness have preserved it better. One piece found is thought to have been a child's poncho; another piece a bag. Most are fragments too small to definitely indicate their initial purpose.

Weft-wrap has been described by Kate Peck Kent as a "kind of embroidery done on the loom". It also resembles "drawnwork", a technique that needle workers have done for many centuries. However it differs from the latter in that it is done entirely on the loom during the weaving process. It is done on a plain weave set-up and in the early examples the number of warp threads varied from ten to 34 ends per inch. This technique can produce an open fabric with many types of motifs possible. Very small or large openings can be executed, depending on the number of warps and wefts involved. Some of the prehistoric pieces employed an all-over repeat; in others, just one motif was used. It is generally thought that these early southwesterners produced the intricate designs with a bone, yucca or cactus spine needle. The finely spun cotton warp would have been stretched on a frame loom similar to the contemporary Pueblo or Navajo loom. It can be done today on any two or four harness loom, but one must still use a needle to make the "wraps".

There are several types of weft-wrap. They are parallel; oblique; a combination of these first two; and oval or round holes and unit designs which combine parallel, oblique and the hole technique. We will deal here with the first three types.

Here are some helpful tips for the weaver before starting out on a weft-wrap project:

1. In all of the weft-wrap techniques the wrap is done on an open shed and the weft is threaded through a blunt needle such as a crewel needle.
2. In all of these wraps there are certain key numbers of warps and wefts to keep in mind. These are noted in each of the specific directions and in the table.
3. Thread counts are very important just as key numbers. Starting the wrap on the correct warp thread (sometimes a rising warp thread, sometimes a lowered) is essential. In spacing motifs a very careful count must be kept.

4. Do not thread the needle with too long a weft thread—but be sure it is long enough to reach across the warp without having to be pieced. Wrapping takes up quite a lot of weft. About three times the width of the warp is usually a safe length to use. Piecing of weft can take place on the plain weave rows.

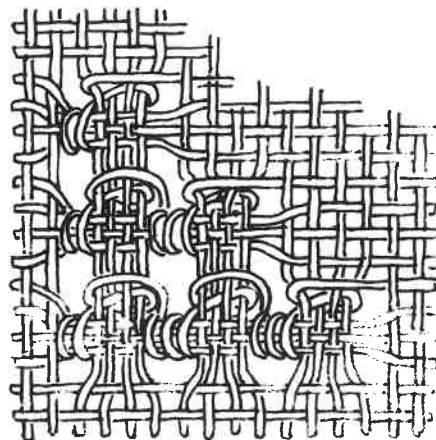
5. A smooth weft as well as warp thread will be more suitable than a textured one. The design will of course show up much better.

6. The side of the weaving you start from is also important. Some wrapping is done from the left—some from the right. This is also noted in specific directions.

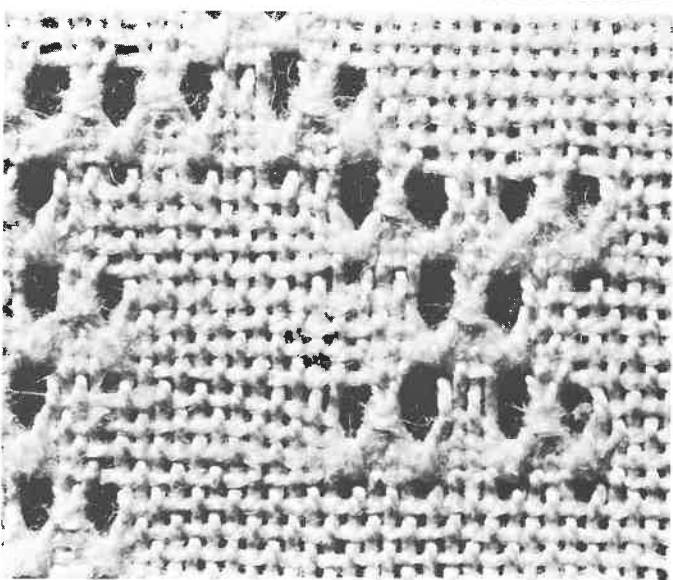
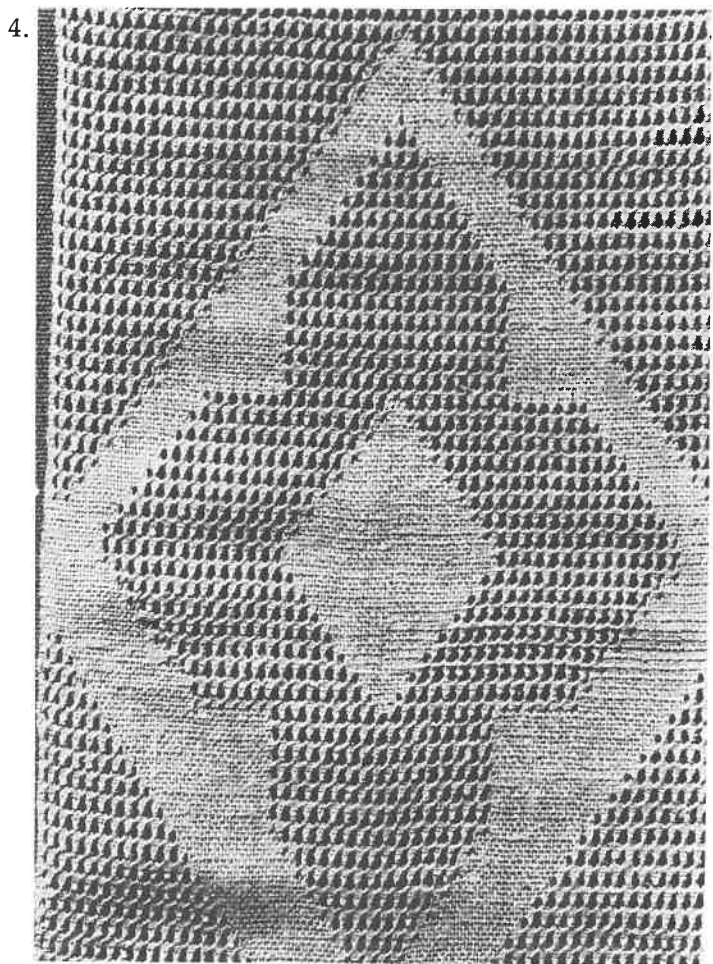
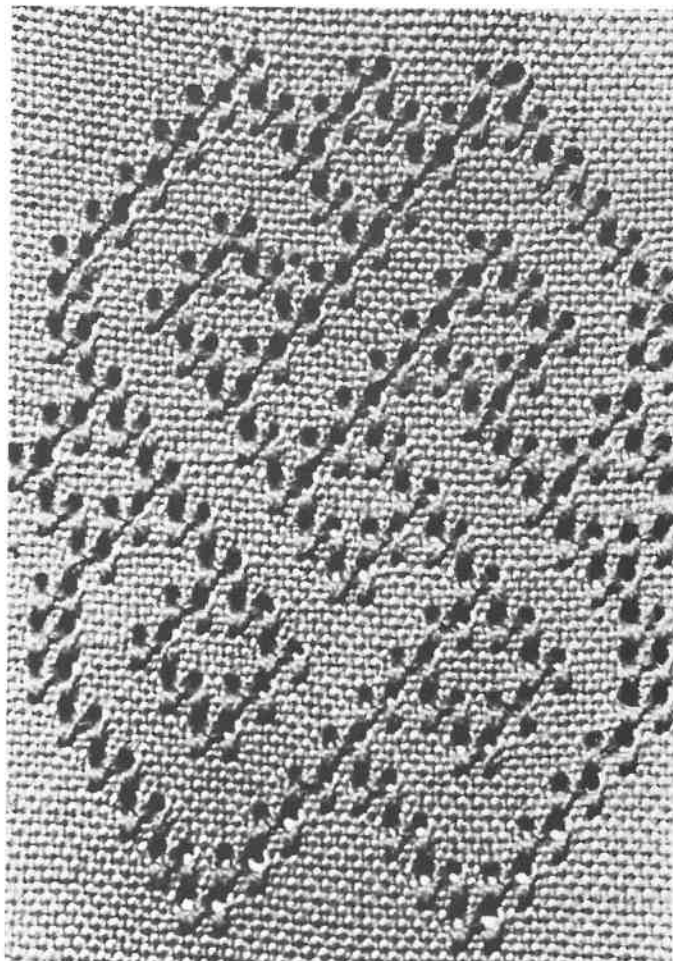
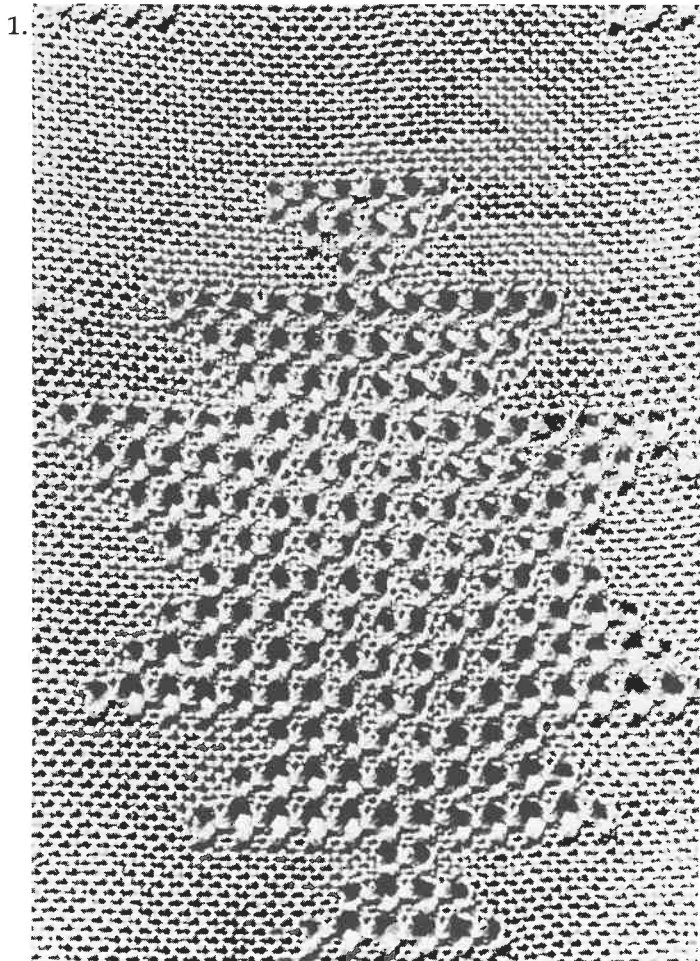
7. Do look up the good diagrams that are available—particularly in Kate Peck Kent's books. A photocopy of these by your side when working can be very helpful.

PARALLEL WRAP

Parallel weft-wrap is perhaps the easiest and probably the fastest of all of the wraps. In this one the key number is four, and the starting is usually on the left. Three weft threads should be inserted first, ending on the left side of the warp. The fourth weft goes into the desired spot for the wrap to begin, and the last warp thread it goes over should be a lowered warp thread. Then the needle should be brought down under the three previous wefts bringing it up through and wrapping it around them twice, then through the shed of the next four warp threads—back under them and wrap them twice. The needle then goes down under the three weft threads on the right and wraps twice. This completes one wrap and it can be continued across the entire warp if desired for an all-over effect. If you are following a pattern, it is convenient to draw it out on graph paper using one block for every four warp threads. In other words if the pattern uses 20 blocks, it is 80 threads wide. There are many interesting motifs possible either garnered from nature, from books or from one's imagination.



Parallel weft-wrap

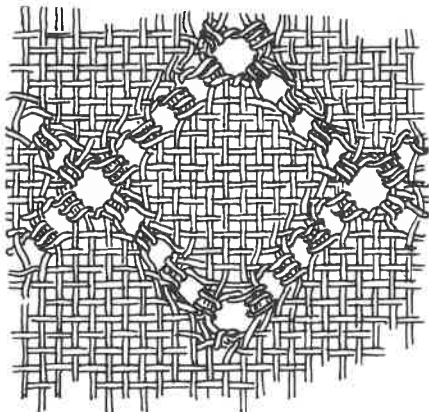


Clockwise from top left: Traditional motif in parallel weft-wrap; parallel wrap in "Knot" motif; closeup of parallel wrap; and hanging in parallel weft-wrap.

There are some variations on the parallel wrap. One is wrapping around three times instead of two. In another one, an extra twist is given around the third weft to keep the "hole" open before the horizontal wrap around the warp threads. Still another one has the weft going through twisted warps on the left side of the hole. Wrapping can also be done from the right to the left with the process described simply reversed.

OBLIQUE WRAPPING

Oblique wrapping is done with two weft shots—one plain weft and the second weft doing the wrapping starting on the left side of the loom. This type of wrapping is done diagonally, and the direction of the angle regulates the direction of the wrapping. This type also wraps one weft and two warp threads together each time. Another thing to remember is that when the angle goes to the right, you pick up the weft *first* and then wrap warps and weft together three times. When the angle is going left, you will not need to pick up weft first, but wrap two times. On the point where the angles meet they will form circles and all angles will point toward the center of the circle.

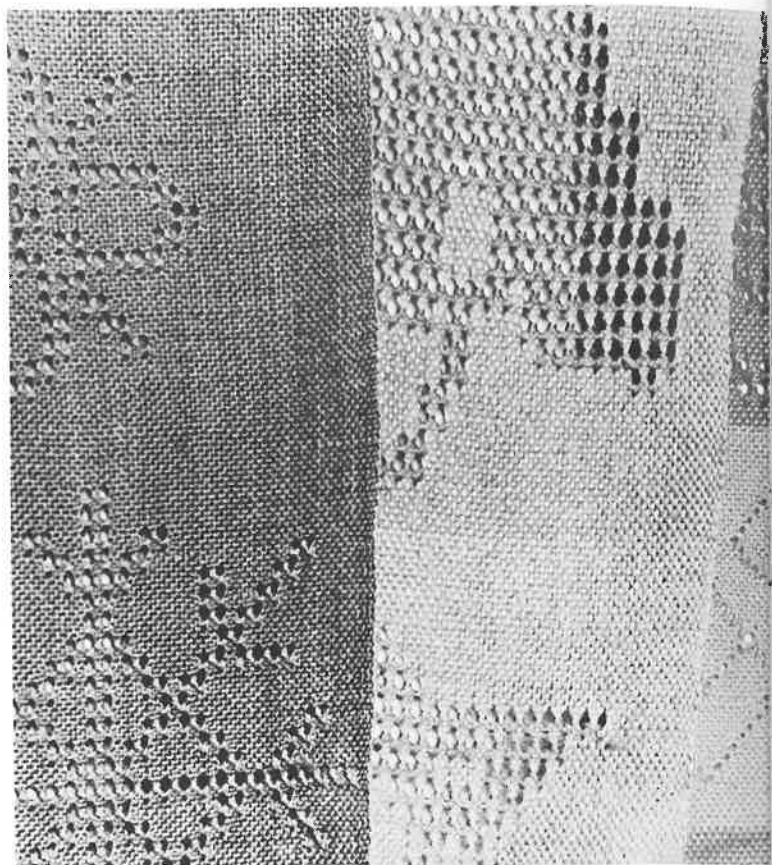


Oblique weft-wrap (after Kent).

There is a variation of the oblique wrapping that forms a double row of wraps, and wraps three times around warps and weft. In this wrap, as in the parallel, it is important to start the wrap *after* you have been over a lowered warp thread. The oblique wrap is a slower one to do than the parallel because only one plain weft is done between the wrap wefts.

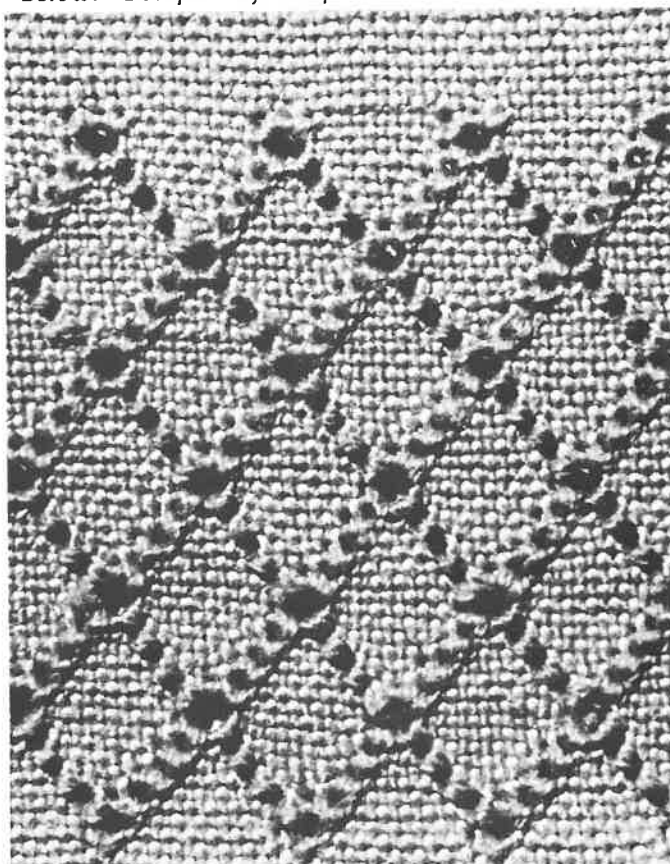
PARALLEL-OBLIQUE WRAPPING

Parallel and oblique combined is faster than the plain oblique. This type of weft-wrap uses three wefts plus the fourth which enters on the left side as in the first two types. To start the hole on the left, take the weft over the last warp thread, then under that one and the next one, coming up through and under the previous weft—over the weft and behind the next two warp threads and through the shed to the right. Weave three shots of tabby ending on the left. Come through the next shed to within four threads of the hole previously formed. Repeat the same "stitch" as on the left side—then wrap once around the next four warp and three weft threads in a diagonal direction from right to left. The weft then goes up through the four warp threads from right to left, wraps twice, then down to three weft in center of hole, wraps two times, over through next shed of four threads, wraps twice, then down to right hand diagonal, around four warp threads and three weft, one twist around next warp thread and through remaining shed. In figure 7 you can see the diamond-like pattern that this wrap makes as it moves to the left and right.

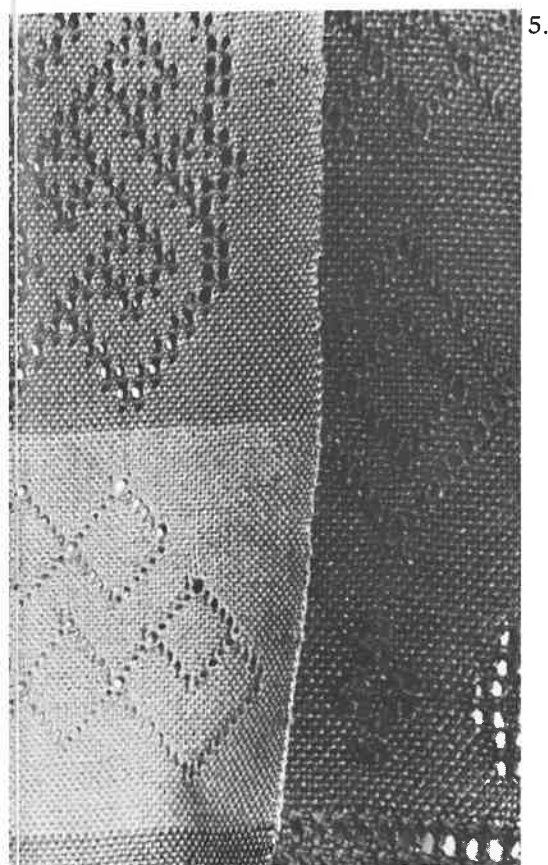


Above: Samplers showing a variety of motifs in parallel and oblique wrap.

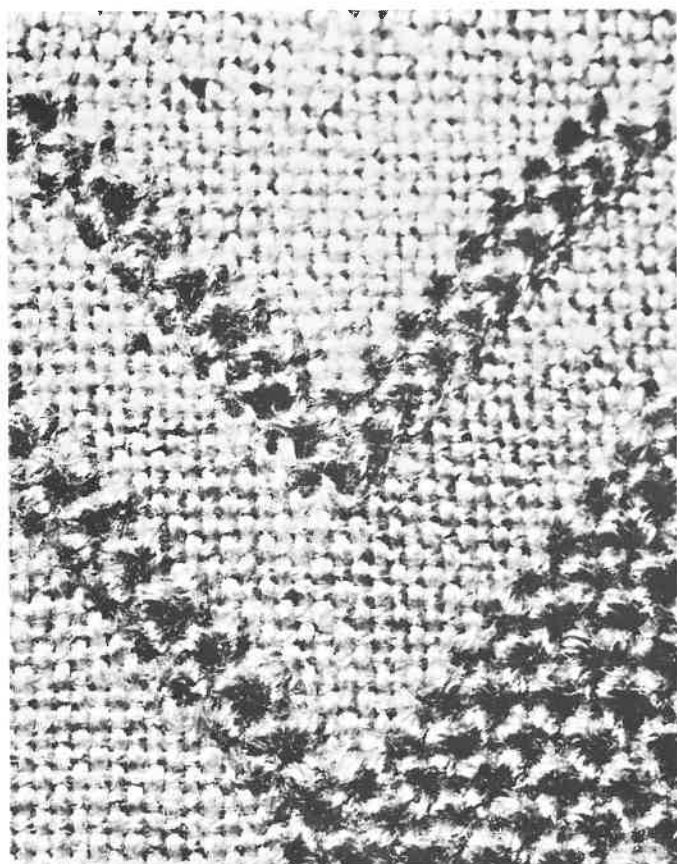
Below: Oblique weft-wrap.



6.



Below: Parallel-oblique weft-wrap.



The ancient examples of weft-wrap used five types of designs. The contemporary weaver can combine these and make up his own motifs. The early examples included zig-zag designs; parallel rows of holes; patterns built along oblique lines but confined to particular areas; and lastly the unit design which was complete in itself.

Exploring the above types of designs will give one ample experience, but designing one's own motifs and patterns gives the most satisfaction. There are many patterns which are suitable for weft-wrap to be found in books of needlework designs. If these are graphed out they will be easy to follow. Keep in mind the number of warp threads each block should represent and the fact that the intervening wefts will elongate the design. Sometimes shortening the number of blocks lengthwise (up and down) is necessary to keep the proportions of the motif.

Most of the work I have done in weft-wrap has been on a warp of cotton or linen, set 15 e.p.i. The weft has been of a similar size but usually in a slightly different shade to give a more vibrant and pleasant color effect. I would not suggest using a much finer thread until you have mastered the technique.

As to the uses of this technique in specific projects, I believe the sky is the limit! Wall hangings, table linens, clothing where an open-work is desired such as blouses, skirt borders, stoles and many items that weft-wrap would put a very personalized stamp to—all can be achieved by this uniquely American weave. Contemporary weavers will find it most rewarding.

TABLE

TYPE OF WRAP	WEFTS	TIMES WRAPPED	NO. WARPS WRAPPED
Parallel			
Type A	4	twice	4
Type B	4	three	4
Oblique			
Type A	2	2 x left	2
Type B	2	3 x right	2
Parallel/ Oblique	4	twice	4

REFERENCES

- Gladwin, H.S. (E.B. Sayles on Textiles) *Excavations at Snaketown*. Medallion Papers. Globe, Arizona, 1937.
- Haury, E.W. et. al. *The Stratigraphy and Archeology of Ventana Cave, Arizona*. University of New Mexico Press. Albuquerque, 1950.
- Hough, Walter. "Culture of the Ancient Pueblos of the Upper Gila River Region, New Mexico and Arizona". *U.S. National Museum Bulletin 87*. Washington, D.C., 1914.
- Kent, Kate Peck. "An Analysis and Interpretation of the Cotton Textiles from Tonto National Monument", *Archeological Studies at Tonto National Monument, Arizona*. Southwestern Monument Association Technical Series. Vol. 2 1958.
- "The Cultivation and Weaving of Cotton in the Prehistoric Southwestern United States". *American Philosophical Society Transactions*. New Series. Vol. 47, Part 3. Philadelphia, 1957.
- Tanner, Clara Lee. *Prehistoric Southwestern Craft Arts*. University of Arizona Press. Tucson, 1976.

GHOST RUGS



Above: Stars and Stripes Forever, J. Kozikowski, 1977.

Upper right: Dyed in the Wool Indian, J. Kozikowski, 1975.

Right: Agueda Martinez, N. Kozikowski, 1976.

These three pieces show the evolution of the idea of rug portraits.

At far right is Polish Cross (N. Kozikowski, 1978) showing personal ethnic influence combined with traditional Spanish and Indian motifs.



About three years ago, Janusz and Nancy Kozikowski of Mendenales, New Mexico, were weaving Indian and Spanish portraits in vegetal-dyed tapestry technique in which the subject wore, held, or stood in front of a blanket. It soon occurred to him, Janusz says, "that the rug itself was worthy of portraiture, especially the old Navajos with their character."

He dyed a lot of variegated shades and uneven colors to give the impression of age, wear, deterioration, lazy lines, wobbles, etc. "I then began to see them as expressions of a thought process, i.e. a Navajo woman weaving in the wintertime finding she didn't have enough of a certain shade to do a uniform piece, so she would re-design it to incorporate what was available. The beauty of the necessity of improvisation."

Janusz goes on to explain that "Later, after doing some landscapes it occurred to me that the rug itself is a landscape with distinct coordinates: the four directions or horizons, the plane of the earth, the stripey patterns found in the New Mexico landscape. Also, the design of the rug became more universal. Living in a predominantly Spanish village with Spanish weavers about, it occurred to me that a striped rug, indigo and natural black, would be a common denominator of not only Indian and Spanish culture, but basic weaving everywhere. As the rugs began slowly to fade into the sky behind them, beginning to become transparent, a friend (Noel Bennett) suggested that they looked like ghost rugs. I thought that an appropriate title for the series, which is still evolving."

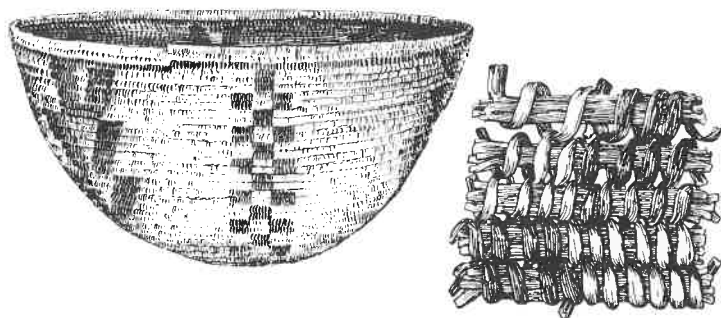


BASKETRY TECHNIQUES

a sampler

These illustrations are from a reprint of Otis Tufton Mason's contribution to the Smithsonian Institution's annual report for 1902: "Part II, Papers Describing and Illustrating Collections in the U.S. National Museum—Aboriginal American Basketry: Studies in a Textile Art Without Machinery".

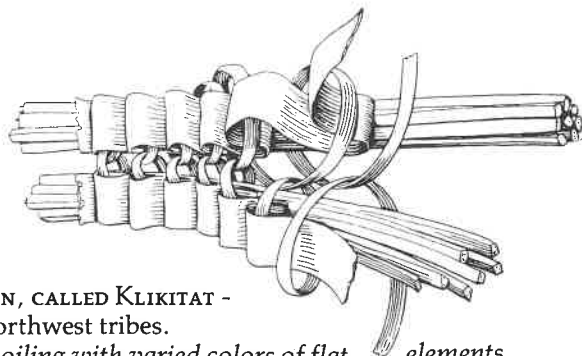
Unfortunately, this excellent report on Indian basketry techniques, materials, ornamentation, symbology, and uses is now out of print, but Rio Grande Press (Glorieta, NM 87535) has given us permission to reproduce a number of its sensitive and instructive line drawings.



Left: COILED BOWL - Coahuilla Indians, California.

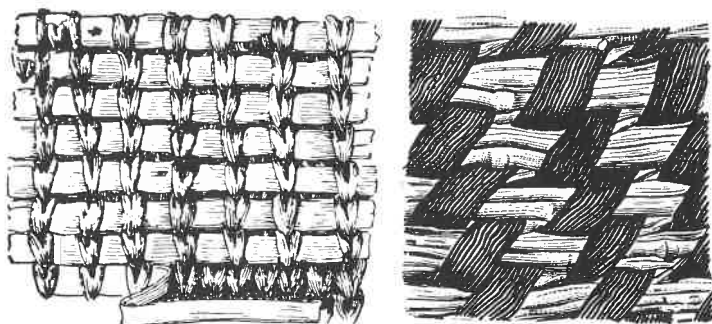
Right: SQUARE INCH OF COAHUILLA BOWL.

Illustrates variation of color to create designs in coiled work.



IMBRICATION, CALLED KLIKITAT - Various Northwest tribes.

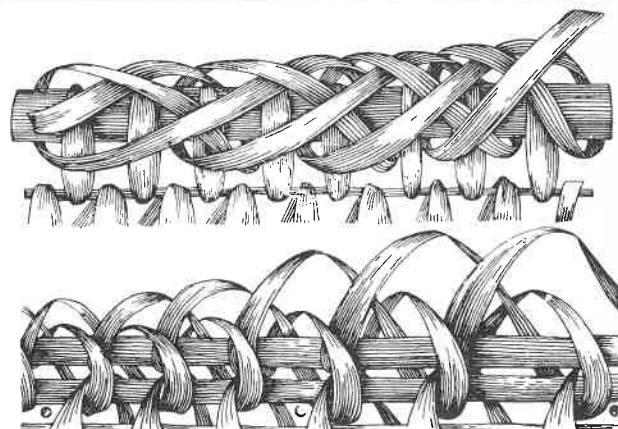
A type of coiling with varied colors of flat elements folded and wrapped to create a colored design which completely covers the foundation and wrapping elements.



Left: OVERLAYING IN COILED WORK.

A type of imbrication in which a straw of grass is enclosed under a stitch; it is then turned back; a second stitch is made and the strip of grass is turned over it to yield alternation of exposed and covered stitches.

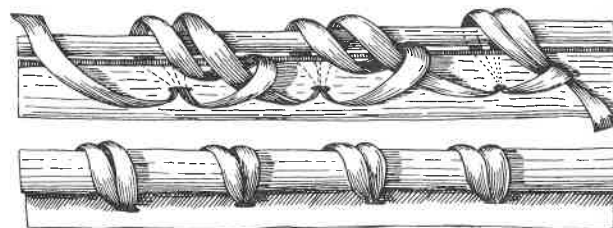
Right: COIL WITH OPEN SEWING ENCLOSING PARTS OF FOUNDATION - Various tribes including Pima, Arizona.



SINGLE-STRAND PLAITED BORDERS.

Above: Sia Indians, New Mexico. A single strand is wrapped around a hoop to give a braided effect.

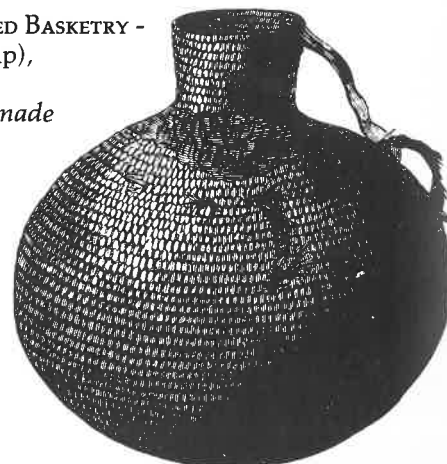
Below: Havasupai Indians, Arizona. Two foundation elements are wrapped with a single strand.

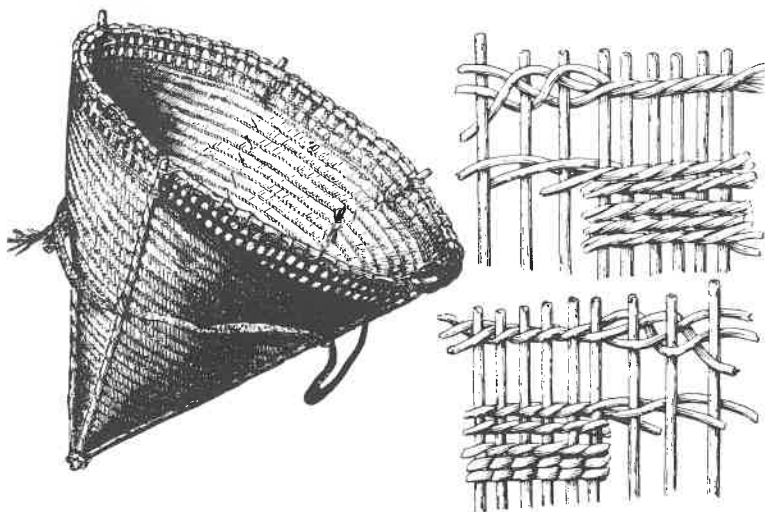


COIL AND KNOT BORDER ON BARK VESSEL - Tinne or Dene Indians, Athapaskan family, Yukon River, Central Alaska. Spruce root is wrapped around a rod and through holes in birch bark.

WATER JAR IN COILED BASKETRY - Wolpi (a Hopi group), Arizona.

Coil foundation is made by laying two rods side by side with a splint on top.

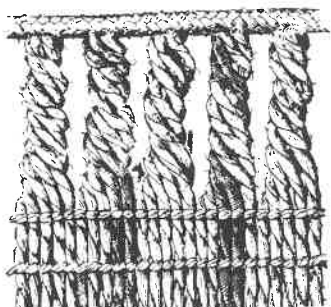




Left: CARRY BASKET, THREE-STRAND BRAID - Klamath Indians, Oregon.

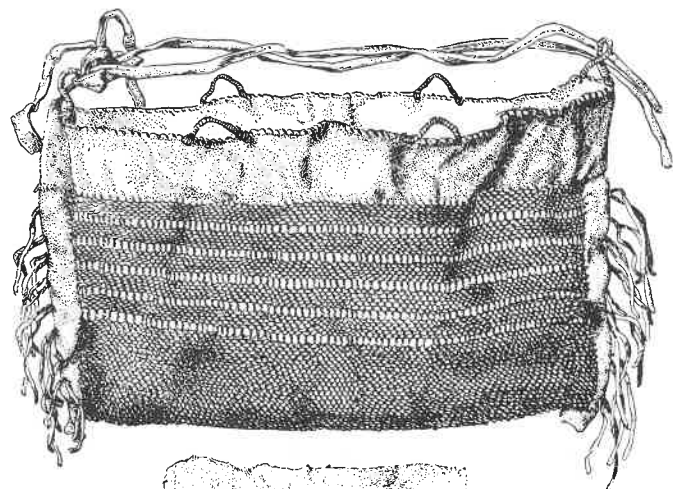
Right: THREE-STRAND BRAID AND TWINED WORK - Used widely throughout the Southwest and Northwest.

Three strands are braided around the warp elements, creating a different effect on the interior and exterior.

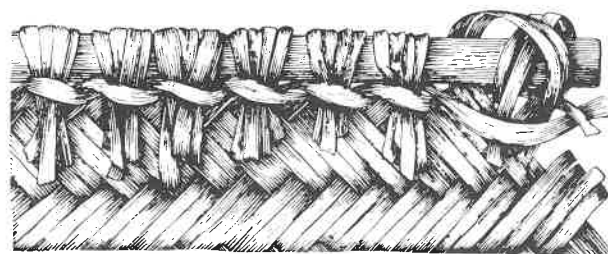
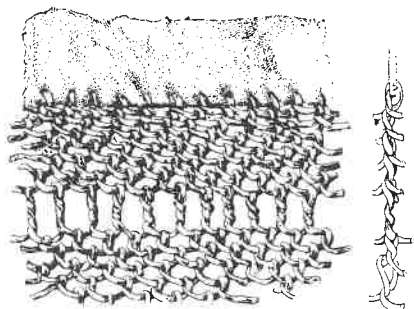


BORDER BRAIDED FROM WARP - Border type found in Mammoth Cave, Kentucky, and Washington State.

Warp ends are twisted in groups of five and then made into a continuous braid.



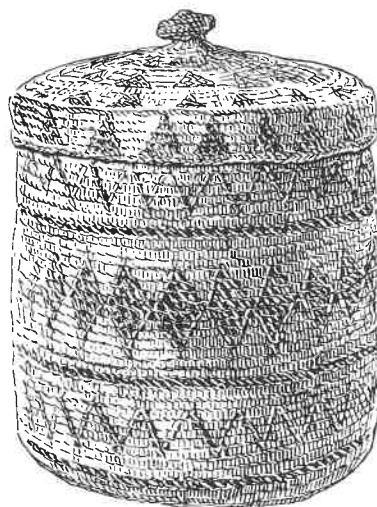
DOG RIB INDIAN GAME BAG - Athapaskan, N.W. Canada.
Done in netting with twisting to make openwork rows.



WEFT AND WARP FASTENED DOWN WITH TWINE

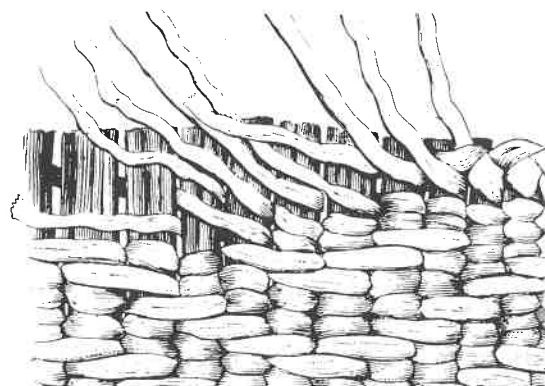
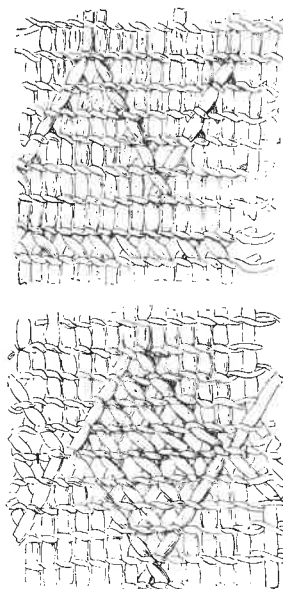
- Example is Zuni, New Mexico.

Warps are brought over a hoop and wrapped with another element.



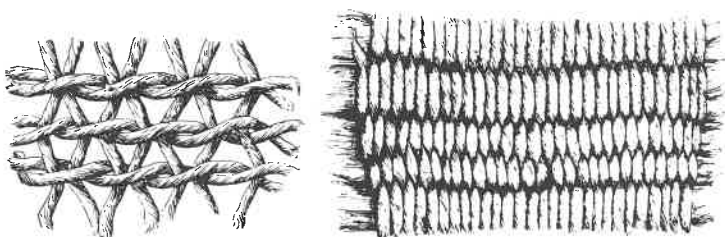
ALEUT TWINED BASKET - Alaska.

Shows the creation of designs through warp crossing.



MIXED TWINED WORK - Haida Indians, British Columbia.

Plain twining is mixed with diagonal twining over several warp elements to create a geometric design.



ANCIENT TWINED WEAVING - Preserved in impressions on pottery, Tennessee.

A horizontal and vertical version of two-strand twining over single and multiple elements.



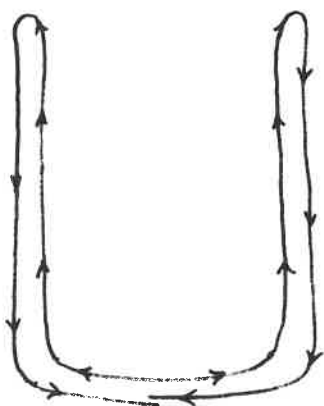
DOUBLEWEAVE BASKETRY OF THE CHEROKEES

Consider this nutshell history of the Cherokee Indians. A numerous, adaptable, and sophisticated tribe of the Southeastern United States, they were split asunder in 1838 when some 16,000 were forced-marched to Indian Territory (now Oklahoma) on the infamous "Trail of Tears", with a full quarter of their number perishing along the way. A few hundred Cherokees avoided removal by hiding in the hills, and today make up the "Eastern Band" on the Qualla Boundary in North Carolina. No sooner had the Western Cherokees established their life in the Ozark Plateau region of north-eastern Indian Territory than the Civil War divided this portion of the tribe ideologically, and guerrilla fighting and full engagements destroyed the homes, schools and businesses they had spent 25 years building up. Then, little more than another quarter-century after the Civil War, new pressure on the Federal government by white settlers resulted in the breaking up of tribal lands and their eventual absorption into Oklahoma when it achieved statehood in 1907.

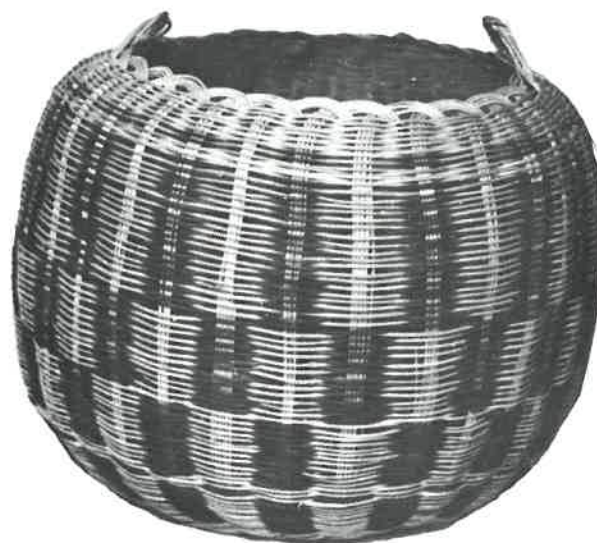
What effect does violence, repeated disruption and geographic uprooting have on the cultural artifacts of a people? Virtually all Native American groups have these unfortunate factors in their history. An interesting example to look at in the case of the Cherokees is their doubleweave basketry and the way it has evolved into two distinct forms, almost disappeared, and been revived again over the past 150 years.

The doubleweave baskets of the Eastern Cherokees in North Carolina are plaited of split rivercane in a twill technique. The inside structure is

woven first; at the top edge, the weaving elements are doubled over and woven downward to meet at the bottom. The bottom joining is done in such a way that it doesn't show; it appears to be a continuous surface. This results in a double-walled container which has the advantages of greater stability, the shiny surface of the cane showing on both the inside and outside, and the possibility of different designs being worked inside and out.



Twillled canework is of ancient origins, with prehistoric fragments of matting having been found in the caves of Tennessee and Kentucky. Dr. Frank Lamb says that twillled canework originated in this hemisphere with the Chitimacha of the Mississippi River delta, and then radiated north and east to the Creek, Choctaw, and Cherokee. It is similar to twillled canework of Guiana in South America (Mason). How far back the doubleweave structure used in conjunction with twillled cane baskets goes is not clear. But James Adair in 1775 described nesting sets of 8 or 10 clothes baskets made in twillled cane by the Cherokees, and the 19th Annual Report of the Bureau of Ethnology mentions that such sets of baskets were double woven. Some early sources describe baskets as being woven of elements



Contemporary lidded doubleweave basket of twillled split rivercane by Eva Wolf of Big Cove, North Carolina. Photo courtesy of Qualla Crafts Mutual, Cherokee, N.C. Large doubleweave basket of buckbrush runners by Lucy Mouse of northeastern Oklahoma; about 1940. Courtesy of the Philbrook Museum, Tulsa, Oklahoma. Opposite: Doubleweave baskets by Eva Wolf at her home. Photo courtesy of Qualla Crafts Mutual.



"Rivercane, of the three materials used by the Cherokees in their basketweaving, has always been the material that challenged me in making the many designs that lend themselves to this material. It was in the late fifties that I realized that there were only two older basketweavers who could do the rivercane doubleweave baskets..."

Eva Wolfe of Big Cove, North Carolina, is regarded as one of the best of a handful of craftsmen who practice rivercane doubleweave today. She learned the craft from her mother and perfected it under the direction of her aunt, Lottie Stamper: a 1977 NEA grant was only the latest of several awards of recognition her work has won over the past 20 years.

Eva, her husband Amble, and one of her 11 children, Jonah, typically begin the spring by making a trip to gather enough rivercane to last for the next three months. Bloodroot for brownish-red dye is also gathered in Spring. Eva's tools consist of a bush knife to cut the cane, a hunting knife with well-padded handle for "busting" the cane, and a pocket knife for scraping the strips. Each stalk of cane yields four strips for weaving; busting and scraping is notoriously hazardous work because of the keen edges on each strip. A typical basket, like the one Eva is weaving here, might consist of 120 strips.

"I prefer rivercane...because of the patterns I can see in the weaving. Each basket is special..."

from publications of the Qualla Arts and Crafts Mutual, Inc.

For information on ordering baskets, write:

Arts & Crafts Mutual

P.O. Box 277

Cherokee, North Carolina

consisting of two strips of cane laid back to back; however, this might be a faulty description of the doubleweave structure.

The Eastern Cherokees also made single-walled twill cane baskets, oak splint baskets, and wickerwork of oak splints and honeysuckle vine; but all forms of basketmaking declined in importance during the century of turmoil and civil war following the Removal. The formation in 1935 of the Indian Arts and Crafts Board under the Department of the Interior encouraged renewed interest in native crafts; the Qualla Arts and Crafts Mutual offered additional incentive for local craftsmen. Even so, by the 1940's only two or three women on the Boundary carried the knowledge of how to make doubleweave baskets. One of these, Lottie Stamper, became the local "dean" of basketry and taught doubleweave and other techniques to such younger craftsmen as Carol Welch, Eva Wolf and Rowena Bradley



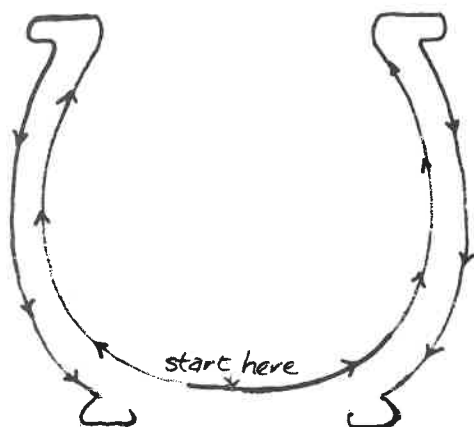
Doubleweave basket by Carol Welch of the Qualla Boundary, North Carolina.

Doubleweave baskets being made today by these and a few other craftsmen tend more toward the decorative than the functional; the old twill patterns and soft colors of bloodroot, walnut and butternut result in museum-quality pieces that are finding a market among collectors.

Meanwhile, in the Cherokee Nation in Oklahoma, a distinctly different kind of doubleweave basket is found today. Made in a wickerwork technique from buckbrush runner (or in some cases from imported reed), these baskets share the concept of a double-walled structure with the doubleweave

baskets of the Eastern Cherokees; but whether they are the product of uninterrupted evolution is difficult to determine.

Like the twilled rivercane baskets, these wickerwork baskets are started at the bottom of the inside wall. At the top of the inside wall, either a flat or scalloped braided edge is worked; then the "warps" are turned downward, the outside wall is woven, and the bottom edge is finished with a braided border that conceals the warp ends and helps the basket stand upright. Unlike on the twilled baskets, the warps of the outside wall do not meet at the bottom.



At what point did these basket-makers make the transition from twilled flat elements to wicker tubular elements? One possibility is that basketmaking was interrupted entirely during the difficult years during and after the Removal. Then on resuming the craft, perhaps they took the materials most readily at hand and adapted the remembered weave structure and construction details to suit the materials. However, there are no dated specimens that go back further than about 1940, and 100 years is a long time for a craft to lie dormant and then spring back up spontaneously.

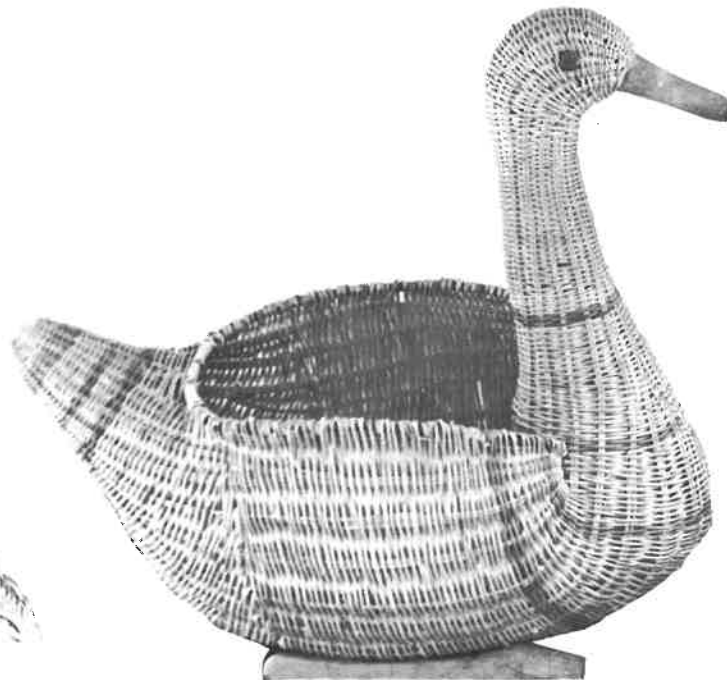
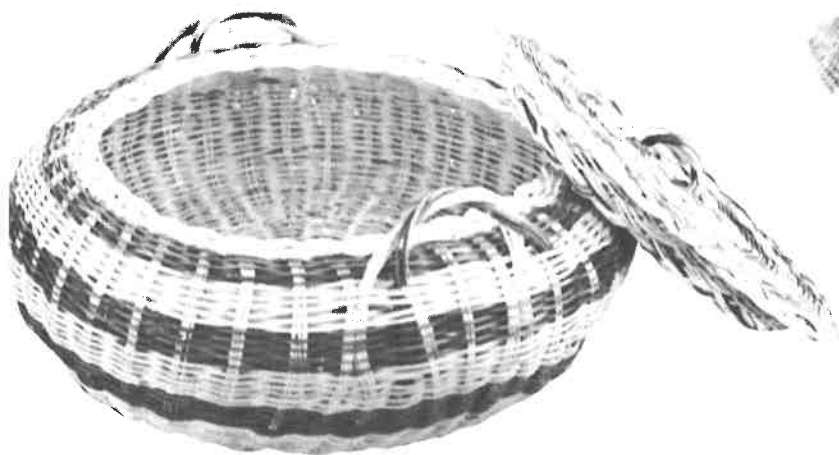
Dr. Garrick Bailey, head of the Department of Sociology and Anthropology at Tulsa University, feels that twilled cane baskets were made by the early Oklahoma Cherokees, and that this form of work declined when the cane became scarce. He cites a twilled cane blowdart case in the Field Collection of the Philbrook Museum in Tulsa as evidence of this. If the Oklahoma Cherokees did indeed do twilled cane work after the Removal (as the Choctaw and possibly the Creek did), this would speak of a more orderly evolution of the craft.



"When I was a little girl my mother gathered the buckbrush and would sell it to the people over at Eucha. I used to tell her 'give me some, I want to try that.' But she wouldn't let me have any. One day while she was gone, I took the little runners that she had cut off, and made me a basket. She was so surprised."

Sally Lacy of Kenwood, Oklahoma, has been making doubleweave baskets off and on for the last 43 years. She doesn't gather the buckbrush herself anymore, but buys it in lots to be boiled, stripped of its bark, and trimmed of the many runners that branch off its tangled length. Sally makes more of her baskets on commission, but likes to try new shapes and patterns. She remembers trying a number of years ago to copy animal-shaped baskets that she saw in a catalog of imported wickerware. She enjoys the bright colors from household dyes, but her customers prefer browns and golds and the softer shades from walnut hulls and other native materials. Sally soaks the buckbrush as she weaves to keep it pliable. The large clothes hamper she's working on here will have a fitted lid.

For information on ordering baskets, write
Cherokee Arts and Crafts
P.O. Box 807
Tahlequah, Oklahoma 74464



Two doubleweave buckbrush baskets of the 1950's, probably by Jennie Sapp of near Jay, Oklahoma. At left, a lidded work basket, at right, a goose basket. This type of basket resulted from experimentation with new forms over the last few decades, and has become popular. Both baskets are owned by Chris Bolton, Berthoud, Colorado.

Informal accounts push the dates of wicker doubleweave back a bit further than 1940. Sally Lacy (see box) remembers that a group of Cherokees at Eucha (in present Mayes County) were making doubleweave baskets in 1934. Her mother gathered buckbrush and sold it to them; Sally taught herself to make baskets after watching them do it. However, Eucha has been under the water of a manmade lake for a number of years, and its former inhabitants long since dispersed. Betsy Olson of the Gilcrease Museum in Tulsa feels the technique goes back at least 60 years. She has childhood recollections from the early 1920's of a Cherokee acquaintance of her mother making doubleweave buckbrush baskets to sell to customers in Chelsea, Rogers County.

Marty Hagerstrand, curator of the Tsa'la gi Museum in Tahlequah, speculates that, for lack of firm evidence to the contrary, wickerwork doubleweave should be regarded as a product of the last 50 years or so. He mentions one possible source of its birth (or rebirth) might have been the influence of the Keetoowah Society, a movement started by Baptist missionary Evan Jones in the 1850's to strengthen tribal identity and interests by returning to some of the traditional ways. This group was the forerunner of the Nighthawk Keetoowah, a still more conservative group that even today is thought to number several thousand members. The Keetoowah Society is chiefly religious and political, though, so whether its influence would extend to crafts is questionable.

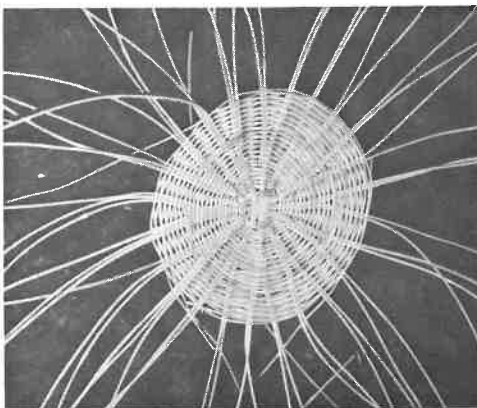
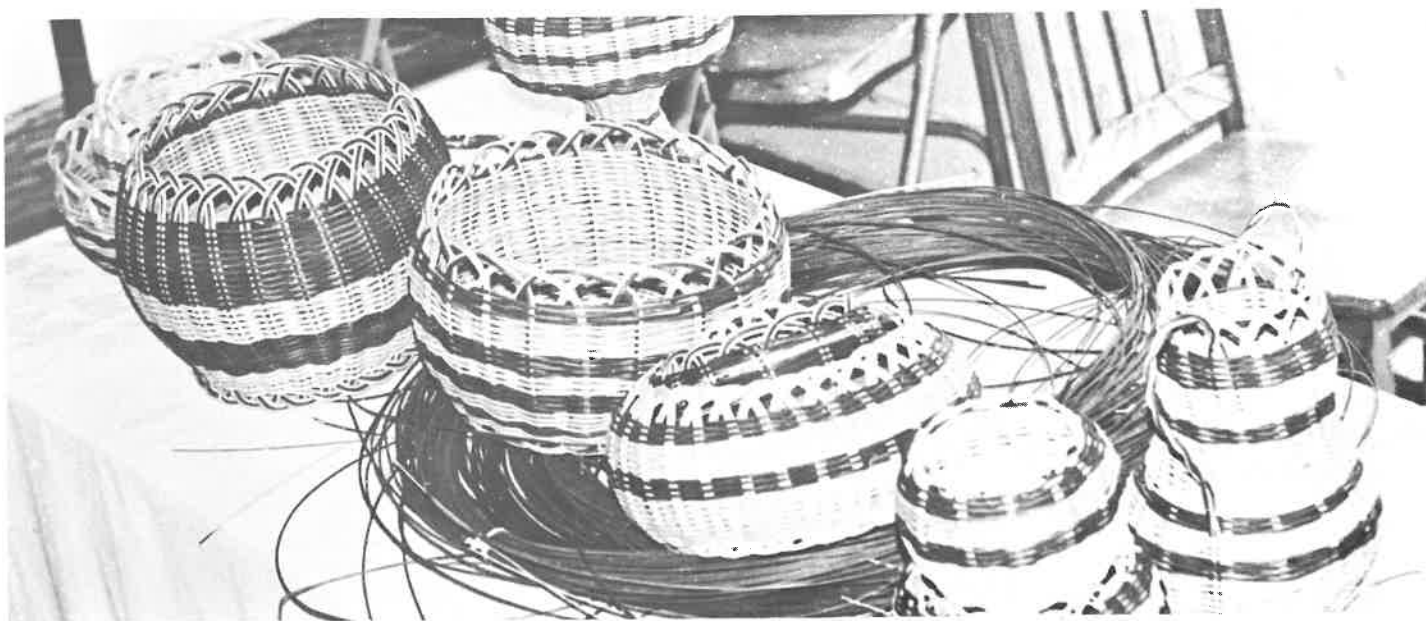
Continuing ingress of Eastern Cherokees into the Nation, particularly the arrival in 1881 of a band of some

120, could have helped maintain or renew knowledge of the old crafts as they were still being practiced in the east. But while the Eastern Cherokees did make baskets of wickerwork honeysuckle, they seem not to have made double walled pieces in this way.

Looking at these two forms of basketry, and trying to relate them to the history of their makers, seems to raise more questions than it answers. There remains a tantalizing gap of at least 80 years during which this major craft form of a tough and resilient people underwent a striking and untraceable transformation.

BIBLIOGRAPHY

- Foreman, Carolyn Thomas. *Cherokee Weaving and Basketry*. Muskogee, Oklahoma, 1948.
- Lamb, Dr. Frank W. *Indian Baskets of North America*. Riverside, California: Riverside Museum Press, 1972.
- Mason, Otis Tufton. *Aboriginal American Basketry: Studies in Textile Art Without Machinery*. Annual Report of the Board of Regents of the Smithsonian Institution, 1904. Reprinted, Glorieta, New Mexico: Rio Grande Press, 1970.
- Speck, Frank Goldsmith. *Decorative Art and Basketry of the Cherokees*. City of Milwaukee Public Museum, 1920.
- Whiteford, Andrew Hunter. *North American Indian Arts*. New York: Golden Press, 1970.
- Wright, Muriel H. *A Guide to the Indian Tribes of Oklahoma*. Norman: University of Oklahoma Press, 1951.



Above, Mary Foreman of Oaks, Oklahoma, works on a single-weave buckbrush basket in a fancy shape, while her grandson James Fields, Jr., at age seven maybe the youngest basketmaker in the Cherokee nation, looks on.

Above right: Baskets typically begin with 12 warps divided into two crossing groups; basket at right has been woven from the bottom to the top edge, and is ready to be turned.

Right: Nellie Tucker of Oaks works on a small doubleweave basket.



PUEBLO WEAVING: A RENAISSANCE

by Ramona Sakiestewa

When I began thinking of what I would write about Pueblo weaving, I casually asked friends what would they like to know. What is Pueblo weaving... "Isn't it a lot like Navajo Weaving?" they queried. They clearly understood that it wasn't after hearing me sigh and watching me grimace. This, however, is a fairly common response. It is I who cannot see the "forest for the trees," and must continually remind myself that everyone is not as involved as I am with the minute details of this art.

It is true, however, that Navajo weaving has been more widely documented and has been in the "limelight" since before the turn of the century, even though Pueblo weaving has a universal tradition among Prehistoric and Historic Indians of the Southwest and Plateau country. The manufacture of baskets, sandals, tump lines, sashes and

cordage have been found in what is now southern Colorado, Utah, southern Idaho, Arizona, and New Mexico. Off loom and finger weaving techniques were applied utilizing plant fiber (bast), animal, dog, and human hair, between AD 300 and AD 700. Evidence of these techniques has been found in the form of imprints and design motifs on pottery, but the textiles themselves were subject to climatic abuse and did not survive in quantity.

Cotton and the loom seemed to have made their debut into the Southwest simultaneously, about AD 700, from southern Arizona. This was an apparent upward growth of textile technology from Peru. There, weaving had become an art form several hundred years prior to reaching what is now the southwest United States. The Pueblo Weaving which developed as a result of the introduction of cotton varied from open-work to painted and tie-dyed fabrics, as

well as tapestry, twill and embroidered textiles. Today's Pueblo textiles differ from prehistoric pieces as a result of direct interchange with outside cultures. Many weavers dropped these prehistoric techniques with the availability of dry goods, and later still, when manufactured apparel was introduced.

During the late Seventeenth century, it seems that Pueblo men passed on their weaving skills to Navajo women. These new weavers quickly developed their weaving to such a point that they were marketing their blankets to both Spanish and Pueblos. At this juncture in history, Pueblo and Navajo Weaving took their separate ways. Navajo weavers maintained a commercial liaison with traders; and with the final definition of the "reservations" have evolved, to date, geographic patterns such as Two Grey Hills, Tec Nos Pos, Wide Ruins, etc. Pueblo weaving, however, was primarily perpetuated for religious and ceremonial use; and therefore it became less visible and viable for outside consumption.

Native American lifestyles and philosophies have not been easy to maintain since the discovery of America. Conquering this continent, and particularly the West, have been life-long occupations of many generations of non-Indians. Some of these people have been sincere and well-intentioned in their dedicated efforts towards "saving" and educating Native Americans—whereas others were interested in taming the Wild West, the people, the land, at all costs. Native Americans, as well as immigrant Americans have been undergoing assimilation for two hundred or more years.

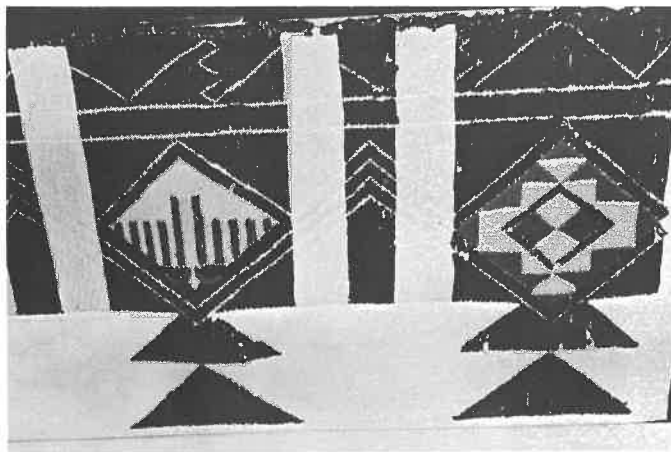
During the last ten years, there has been a steadily growing reversal of the "Waring Blender" culture. The recent popularity of *Roots* shows that the American people are taking a serious interest in their origins, art forms, and technologies. People are now studying and assessing their particular cultural origins in relation to other cultures, and are taking pride in the unique differences. Simultaneously, perhaps as a direct result of our technological developments, interest by many people in arts and crafts has resulted in a renewal of self-expression, i.e., cultural expression.

The Pueblo cultures have been no different. We have maintained our "Indian-ness" in urban and technological situations (via arts and crafts), as well as in our Pueblos. It is fortunate that we have our cultural expressions; and more specifically, they reflect the survival of our religious and philosophical traditions. With the influx and interest of younger generations, it is becoming less unusual to see 300 or more dancers participating in ceremonies among the Rio Grande Pueblos. It is particularly impressive to see how completely and beautifully costumed each dancer is. The dancers' ages range from elders in the Pueblo to three- and four-year-old children. Dances are a part of the religious ceremonies of each Pueblo, with the prayers of each dancer resulting in rain, an abundant harvest, and good providence for all people.

Each female dancer can wear any combination of the following:

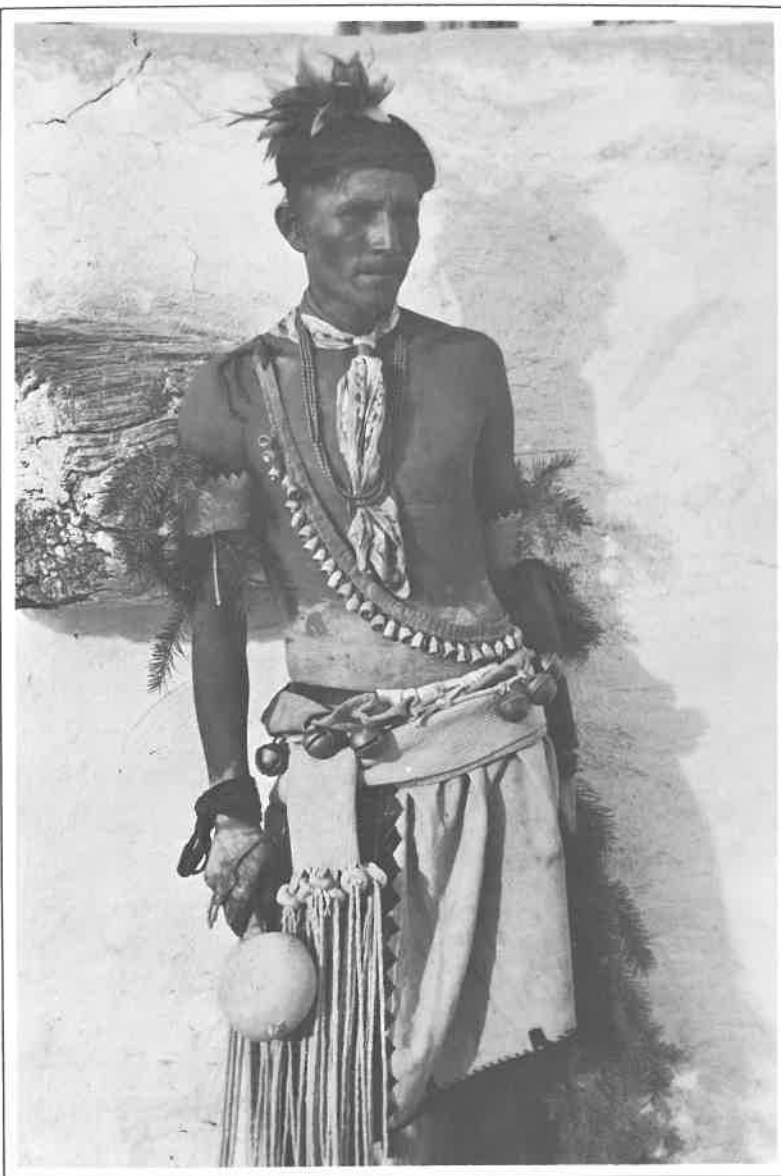
- Hand-sewn underdress (influence of dry goods introduction)
- Hand-woven manta (dress) with embroidery
- Hand-woven belt
- Hand-woven hair tie
- Hand-crocheted or knitted leggings
- Hand-sewn backscarf (decorated with commercial ribbon and lace)

Opposite: A Hopi weaver, 1897.



Top: Detail of embroidery on white cotton manta. Above: Detail of black manta. Photos by Carol J. Bodily, courtesy Denver Museum of Natural History.

photo by T. Harmon Parkhurst



Right: Paul Trujillo, corn dancer of Cochiti Pueblo; about 1935.

Below: Aida Antoine, San Juan Pueblo weaver, in a traditional weaving class sponsored by the Oke Oweenge Crafts Co-op at San Juan Pueblo, and taught by the author.

Opposite: Unidentified women of Zuni Pueblo.





Each male dancer can wear any combination of the following:

- Hand-woven and embroidered kilt
- Hand-woven and embroidered breech cloth
- Hand-woven sash or belt
- Hand-woven or embroidered shirt
- Hand-crocheted shirt or leggings

In addition, both male and female dancers are wearing hand-made moccasins with wrappings, hand-crafted jewelry, hand-made rattles, hair ornaments, shell, leather or feather accoutrements. If one were to completely outfit a dancer from the moccasins up, one would become acutely aware of the monetary investment involved; but fortunately "Trading" is still a favorite pastime of Indian people. Various Pueblos are sponsoring workshops in embroidery, sash, belt and manta weaving. The traditional weaving techniques are now the foundation for non-traditional developments. The emergence of contemporary styles and techniques can be seen in the manufacture of pillows, purses, and embroidery of capes, vests, dresses and aprons. Exhibitions and shows, such as those sponsored by the Museum of Northern Arizona, The Hopi Show, the Heard Museum, the Eight Northern Pueblos Arts and Crafts Market, the Southwestern Association on Indian Affairs Indian Market, provide weavers the exposure and opportunity to promote their crafts to both Indian and non-Indian consumers; prior interest had been generally limited to collectors and museum curators.

The new trend of museums is toward becoming community-involved cultural centers rather than exclusive repositories for artifacts. They have helped most recently in providing exhibits of cultural collections to the public. This, combined with the re-identification of younger Pueblo generations with their culture, and the increasing awareness of textile arts by the general populus, is creating a Pueblo Textile Renaissance.

I, for one, am enthusiastic about this revival in Pueblo culture, and am delighted that I can share my cultural expression with more and more people from all walks of life.

SUGGESTED READING

- Brown, Rachel. *The Weaving, Spinning, and Dyeing Book*. Alfred A. Knopf, New York. 1978.
- Colton, Mary-Russell. *Hopi Indian Arts and Crafts*. Museum of Northern Arizona, Flagstaff. 1951.
- Fontana/Faubert/Burns. *The Other Southwest—Indian Arts and Crafts of Northwestern Mexico*. Heard Museum, Arizona. 1977.
- Fox, Nancy. *Pueblo Weaving and Textile Arts*. Museum of New Mexico Press. 1978.
- Kent, Kate Peck. (upcoming on *Prehistoric Pueblo Weaving*). University of New Mexico Press. 1978.
- Tanner, Clara Lee. *Prehistoric Southwestern Craft Arts*. University of Arizona Press, Tucson. 1976.

SALISH WEAVING,



THEN & NOW

by lorraine ling

Weaving was once a full-time occupation for Salish women, who created baskets and mats, blankets and other weavings of great prestige. The blankets they made, in addition to functioning as cloaks and bed coverings, were important items of wealth. Blankets would be distributed as gifts, often by the hundreds at a 'blanket feast', and in conjunction with other ceremonies such as weddings and burials. But with the coming of Europeans came the ubiquitous 'Hudson's Bay blanket', which achieved popularity over the handwoven ones because it was so much more quickly and easily obtained: 60 fresh salmon for one in 1857. In addition, the people were under pressure from missionaries to give up their traditional ways of life, especially their feasts and ceremonies, and as this took place weaving gradually lessened in importance.

The revival of Salish weaving, the remembering and rediscovering of skills and techniques, was initiated in the early 1960s. Mary Peters translated her family basketry patterns into rug-weaving designs and worked on a loom built like those she had seen as a child. At the request of Oliver Wells, who had become involved in reviving the art, Adeline Lorenzette wove a white goat-wool blanket. With the late Mr. Wells to support, encourage, arrange exhibits and otherwise father things, the group of weavers expanded. A club was formed in 1971; carding and spinning equipment and looms were bought or built.

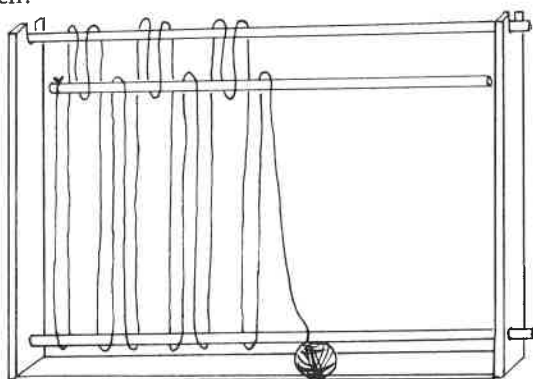
The Salish Weavers are now cooperatively making and marketing their products through their own store in Sardis, British Columbia. There are about 40 members, although not all of those are working at any one time. Work is divided: some members prepare, spin and dye the wool for others to use in weaving. A few of the weavers spin and dye their own; some of the spinners knit as well. Six women are active spinners and the store purchases their wool at a price per pound according to size: more for the lighter yarns than for heavy rug wool. Weavers work individually, producing mainly rugs and wall hangings, as well as blankets, chair covers and other things. These are purchased by the store, with prices calculated by the square foot. Some members have specialized in bookkeeping and other business skills and take responsibility for the store and sales.

The freedom and flexibility that existed in the early weaving have allowed it to be translated into the present. Traditional methods and designs have been explored and adapted to suit contemporary weavers. By experimenting with local plants, they have expanded their range of color. Some technological changes have been made to lessen the amount of tedious work involved.

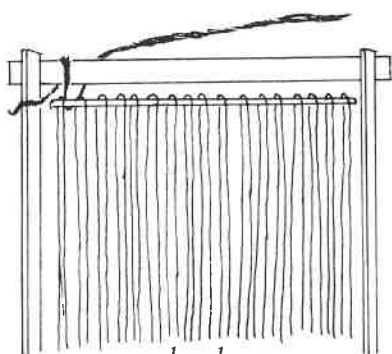
Early weavers made use of two types of looms: the one-bar or three-piece loom, and the two-bar or roller loom, both of variable size. The one-bar loom consists of two uprights and a cross-bar. Pre-cut lengths of warp are

folded in half over a small rod, which is then laced securely to the cross-bar. Tension is introduced by weights hung from grouped warp threads. This loom can be conveniently hung from the ceiling and raised as the weaving progresses; pieces are woven from the top down. Plain weave was the traditional technique used; the loom seems to have been used in rug- and mat-making and for items such as capes and dancing aprons which often had a warp of cedar-bark fiber for firmness.

The two-bar loom is the type commonly associated with Salish weaving, and is referred to as the 'Salish loom'. It is composed of two uprights which are slotted to receive two rotating cross-bars. Slots can be made at various heights, and many contemporary looms are made with a series of slots so that the length of the warp can be easily changed. On the early looms, the width of the frame could be adjusted by using sets of rollers of different lengths; one museum piece has rollers 13 feet long. Looms now in use are often not adjustable in width; the uprights are attached to a base and sometimes the lower roller is fixed in position as well.



warping: two-bar loom



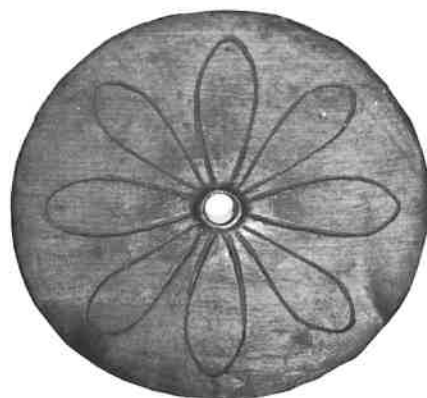
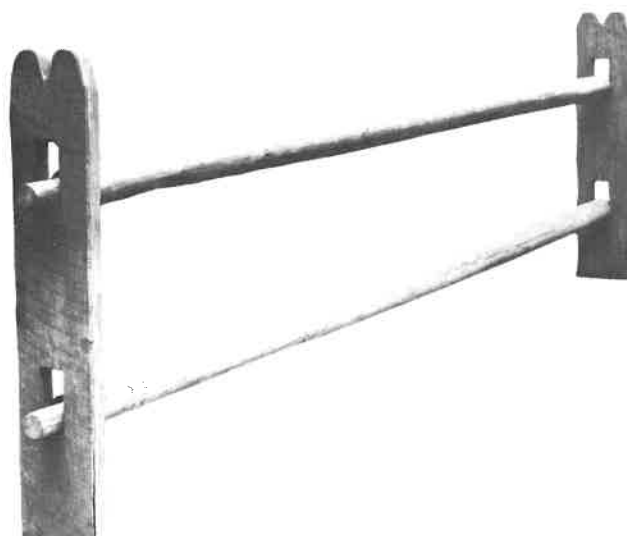
one-bar loom

The two-bar loom can be warped just as a frame, with the warp thread fastened to one roller and wound continuously around both rollers to the desired width, spacing the warps evenly. Warping was usually done this way when the finished piece was to have a loose fringe. With this method, finishing was important; pieces woven this way were generally twined at both ends, if not for the whole length. The piece would then have to be cut off the loom unless both rollers could be slid out. The cut ends or loops would then be knotted. Adeline Lorenzetto's goat-wool blanket was warped this way. The main body of the blanket is twilled, with 4-inch bands of twining at each end.

To achieve a clean edge, or when the full length of the warp was to be woven, a second warping method was used. A 'loom string', a cord or narrow rod, was floated between the cross-bars, providing a reversing-point for the

Opposite: Mountain goat and dog hair blanket, 3'10" x 3'7 $\frac{3}{4}$ ".

Below: Wooden two-bar loom; carved and painted wood sword for beating fibers; and large wooden spindle whorl with incised decoration (9 $\frac{1}{2}$ " x 9 $\frac{1}{4}$ ").



Photos courtesy of Museum of the American Indian, Heye Foundation, New York



Fragment of an old blanket. Photo courtesy of the Museum of the American Indian, Heye Foundation.



Perth Rug by Anabel Stewart. The designs are the running diamond which means track or trail, the lightning for great power of wrath against evil, and the half-diamond for passage of time.

warp thread and helping to keep the tension even. The warp thread is attached to the rod, passed over a roller, and over the rod and the same roller again before being looped over the second roller. In this way, two surfaces are created; the strung warp is actually folded around the rollers so that the length of the weaving is double the distance between the rollers. The weaving can then be moved to be always at a convenient working height. When the weaving is completed, the loom string is pulled out and the two ends of the piece fall apart without cutting. The remaining looped ends can be knotted or will hold a rod in the case of a wall hanging; for a rug they are usually chained together, one into the other across the width for a firmer edge.

With both warping methods, wedges are driven in to fix the rollers and to increase tension. The wedges were removed, providing slack when the woven sections needed to be moved.

The two-bar loom was traditionally used for the large goat wool blankets and ceremonial blankets. Both were usually twilled in either a 2/2 or a 2/1 twill, with the order of crossing stepped further along one warp each time. Warp and weft were usually both wool. Twining—paired wefts twisted around warp threads—was used for outlining shapes, in borders to keep edges firm, and sometimes in the body of a piece for variation in pattern and surface texture. Some blankets were woven entirely in twined weave.

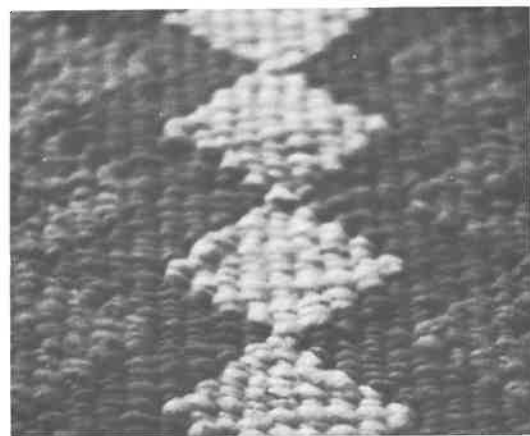
Blankets were rectangular, but the length varied according to intended use. Cloak blankets were commonly about 6' x 7'. Bedding would be woven in sizes of 6' x 12' to 6' x 18'. Blankets longer than this would be exclusively wealth and trade items, although all the blankets had prestige value.

Salish blankets can be further categorized according to type of design: the plain blanket and the Nobility blanket. In the old days, the most common blankets were the plain ones. These were woven in the natural white of the wool, and were often decorated with color in horizontal or vertical stripes, usually black and/or rusty brown, often in a zigzag pattern. Colored warps were sometimes used, and in post-European times, strips of blanket or coating materials were occasionally woven in as decoration.

Nobility blankets were smaller, about 30" x 36", and were much more complex in design. One design type was of a series of vari-colored stripes of geometric shapes. A second type was one in which the design was centered, usually with narrow borders around it. Anabel Stewart's *Perth Rug* is of the first type; it is a design restored to the Salish weavers when Oliver Wells brought back a picture of an artifact piece found in a Scottish museum. The center-point patterns are credited to the early weavers around Yale, B.C.

The material used in blankets was usually goat wool, although dog hair was often combined with or substituted for it. The prestige value of a blanket increased with the amount of goat wool it contained. The heavily-patterned Nobility blankets were made entirely of goat wool whenever possible, and woven completely in twining. Other upperclass extravagances exist in rumor, such as a cloak made of down on a warp of soft nettle fiber; however the common people made their cloaks, mats and bedding from cedar bark.

In addition to the cedar, milkweed, cattails, nettles and other plants were made to yield workable fiber. Long ribbons of the inner bark of cedar were boiled for as long as two days, and then worked by bending, twisting, and



Upper left: Remnant of an old-time plain blanket, twilled in white with woven red stripes.

Left: Detail of a piece by Monica Phillips (Williams), showing the texture of the twined surface.

Above: Hanging by Marlene Green. The designs are diamond for love and understanding, the half-diamond for passage of time, the cross for paths crossing, and the rainbow for promise. About 3' x 4' in yellows and greens.

rubbing between the hands until it was pliable. Strips of the desired width could then be torn off and plaited into mats, or the material would be pounded to shreds and combed for spinning into twine or cord. Yellow cedar was preferred to red, possibly because its inner bark is more resilient and sinewy than that of red cedar. Yellow cedar bark tends to peel in strings rather than splinter, so it is easier to work with and produces a stronger cord, less subject to fraying.

Nettles were gathered in the fall and dried; for processing, they were dampened enough to make the bark flexible, but so that the pith remained dry and brittle. The split stems were rubbed over a blunt edge to separate the pith. After soaking and sometimes boiling, the fibers could be rolled into cord, or further separated by beating for spinning into a soft twine, strong enough to make fishnets and fishing line. Fibers were obtained from milkweed stems in a similar way.

The wool used in the old days was mountain goat wool, gathered from thorn bushes in the spring when the goats were shedding. Sometimes a whole fleece would be available when a goat was killed for meat; the wool was removed from the hide by soaking so as not to ruin the fibers. Dog 'wool' was sheared from a special breed of dog, now extinct. Supplementary fibers such as the 'cotton' from fireweed, milkweed and cattail, the feathers and down of birds, and other animal hair were occasionally used; these were mainly decorative elements used to enhance the surface texture of the weaving. They could be mixed with the wool before it was spun by beating one into the other with a beating-sword until they were thoroughly blended.

In preparing the wool for spinning, it was picked over by

hand and cleaned by beating into it a powder made from diatomaceous earth (pipe clay). The wool was then made into rovings by rolling and blending it between palm and thigh.

There were two types of spindles. The large ones were 3' to 4' in length with a whorl measuring about 8" across; the smaller spindles averaged 18" in length with a whorl of 2" to 3" across. Spinning was done sitting down, holding the pole at an acute angle and twirling it in the air so that the wool was twisted around the pole above the whorl. In using the larger spindles, one hand supported the pole; the smaller spindle was much lighter, so one hand fed the wool onto the spindle. A spindle was chosen according to the type of yarn wanted—the smaller spindle made a finer, stronger thread. Warp yarn was plied by attaching two separate strands of yarn to the same spindle.

Today, domestic sheep's wool is universally used. Wool from local flocks is carded on drum carders and spun on a variety of machines. One type is a converted treadle sewing machine developed on Vancouver Island by people in the Cowichan sweater industry. A hand-built spinning head is driven by the treadle mechanism. The head is a spool type: a spindle with a whorl at each end and a bar above with guide hooks. Wool is fed in from the side, through openings large enough to allow for the spinning of heavy yarns. In other locally-built spinners in use, the head is the same but is built into its own frame and has its own treadling system. Some spinning machines are just a head mounted on a table and driven by the motor from an electric sewing machine. Carders are often motorized as well.

(continued on page 50)

For many dyers working with natural materials, the term "native dyes" is indicative of plants or other dyestuffs which may be found in the dyer's locale. "Exotic" dye materials, on the other hand, are those which the dyer must purchase or obtain through barter. Exotics are often the "old" dyestuffs which have been used for centuries: indigo, cochineal and kermes, logwood, fustic, madder, etc.

In thinking about "native" dyes, one might also consider the dyestuffs found and used by the native Americans. These peoples were as diverse in habit and attitude as the areas in which they lived. Their lives and industry were early comprised of nomadic foraging and hunting, and later of agrarian pursuits. In general it can be said that the native Americans used what was at hand, with ingenuity and creativity, to color bodies, animals, homes, and religious and other hand crafted articles. Colors taken from nature were reapplied by the native Americans to enhance their environment as well as to assuage the spirits or embody strength in battle.

What did these peoples utilize as dyestuffs? According to early anthropological reports and collected artifacts, plants and minerals were the major sources of color—at least until the coming of the white traders with mineral pigments and aniline dyes. These later dyestuffs were manufactured in the eastern United States and brought by traders in powders or lumps to the Indian groups. The trade colors most frequently found after the mid-19th century were vermilion, red lead, chromate of lead (yellow), Prussian blue, chrome green, ivory black, lamp black, Chinese white and zinc oxide. (Recognize any of those? Check an art materials store for colors of oil paints.) Indigo, cochineal, and other "exotics" were also trade items.

Centuries before the white man's intrusion, the native Americans developed and used many techniques for obtaining color from plants and minerals. Because they ate native plants and used them for medicinal purposes, the derivation of dye would have easily occurred during the cooking process or during fermentation, perhaps first observed as a natural process taking place along streams or after rain. Use of urine or natural metal salts as mordants or fixatives was probably accidental at first, but later uses of certain dyes or stains found them mixed with oils, blood, or water as dispersing agents alongside the purposeful use of mordants.

Historically, certain colors have held significance for particular events or attitudes such as black for mourning or death, red for danger, and white for peace and innocence. Though supposedly not informed of the early Greek, Egyptian or Chinese connotative meanings of color, the native Americans often utilized similar color patterns in their own designs. For the native American, the color arrangement and selection were very important. Because of this, many native groups assigned colors to the directions of the compass. Among three southwestern groups, the Zuni, Navajo, and Moki (Hopi), the following color distinctions were made:

	North	South	East	West
Zuni	Yellow	Red	White	Black
Navajo	Black	Blue	White	Yellow
Moki	White	Red	Yellow	Blue

One can observe that in defining compass points these groups used only the three primary colors—red, blue and yellow, plus black and white. This same color usage applies to many designs, sometimes with further mixing of primaries to obtain secondary greens, oranges, and purples.

Warpaint aptly describes the death-danger uses of black and red. For example, the Cherokee going to battle combed his hair with bear grease anointed with Bloodroot (*Sanguinaria canadensis*) and he painted his face red all over except for one black eye ring (from soot) and one white eye ring (white clay). The Crow (Absaroka) on the warpath painted his forehead red (red iron oxide). But perhaps the most bloodthirsty appearing of all were certain groups of Dakota who painted their faces from the eyes to the chin red (red oxide paint), or the Osage braves in the front line of battle of whom half painted mud under their left eye on the cheek and the other half of the braves who did the same on the right cheek. These Osage warriors also painted mud on the corresponding cheeks, shoulders, and thighs of their horses. Even the Tlinkit, residents of the rainy northwest coastal area, painted their faces red and powdered their hair with red resin dust before tying in white eagle feathers.

Not only the men were painting their faces. An anthropologist named Stephen Powers reported in 1881 that the Shastika women smeared their faces daily with choke-cherry juice which gave them a "bloody, corsair (pirate-like) aspect." And, both men and women of many tribes used various plant or mineral colors in tattooing, either for decoration or as part of a medicinal cure. Most common of the tattoo colors was a black obtained from powdered charcoal from willow twigs or other similar woods. This powder was rubbed into pricked skin (punched with sharpened bones); or in some cases, a threaded bone needle was drawn through the charcoal and then under the skin as deeply as possible.

Native Americans applied their knowledge of coloring their own skin to the animal skins used for robes, teepee covers, bags, and articles of clothing. Paints were usually mixed in small clay pots sometimes made in a complex of two or four with handles. Chewed sticks, little brushes made with plant fibers tied to stick handles, animal bones (either carved or not), and hands were used to apply the paint to body or tanned skins. One practice found among several groups was the boiling of some animal part, such as the beaver tails often mentioned. The resulting liquid (which was really a glue) was used to draw the outline or figures on the hides. Then, after the "glue" had dried, the paint was applied over it. The paint adhered to the glue which was stuck to the hide; this provided some measure of permanence to the design.

The decorative painting of pottery involved mineral paints and often the smoke from the fire to finish the color-

to buffalo hides

by Anne Bliss

ing and design of the pottery. Porcupine quills and basketry materials were dyed with a variety of plants and minerals including Bloodroot (*Sanguinaria canadensis*) for red, species of Alder (*Alnus* spp.) for tan or reddish tan, and various ferruginous clays for red, brown, black, or yellow. Paints were usually mixed from water and ochers, while the dyes and stains most often came from plants or a combination of plants and ochers mixed with water. Certain materials, like the weaving fibers for baskets, were often mixed with iron-rich streambank clay, kept wet, and left until the materials absorbed a black color. Animal fibers were most often dyed with plants, though there have been recorded uses of naturally found minerals. The Aleuts used a naturally occurring copper carbonate for blue. The Navajo used (and still use) ochers in combinations with plants to obtain certain colors (as black from sumac, pinon gum, and yellow ocher burned until it darkens); and the Navajo also use a native alum (almogen) as a mordant.

Many of the plants we use today as dyestuffs have a long history of use among native Americans. The partial reference list below mentions a few of these and the colors obtained by native Americans; we obtain the same colors today.

MINERALS:

Ochers: iron rich clay (red, brown, yellow, black) used for skin, fibers, pottery

Soot, Charcoal: from willow or similar wood (black) used for skin

Blue clay: blue used for pottery in the Mississippi Valley

White Sheels: white used for pottery, skin

White clay: white for paint on skin, pottery

Micaceous Iron, Graphite: black used for skin

Blood: from antelope or deer used to make red or tan markings on skin

PLANTS:

Yellow: Alder (*Alnus* spp.); Dock (*Rumex* spp.); Goldenrod (*Solidago* spp.)

Red: Cedar bark (*Juniperus*); Resin from spruce, hemlock and pine; Berries and other fruit such as Chokecherry and other *Prunus* species; Bloodroot (*Sanguinaria canadensis*); Purple corn (*Zea mays amylacea*)

Blacks: Sumac (*Rhus* spp.); Butternut (*Juglans cinerea*), Oak (*Quercus* spp.)

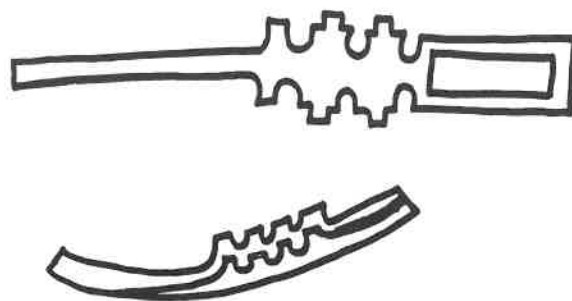
For further information about native American uses of colors obtained from natural sources, please consult the reference list below.

Annual Reports, Bureau of American Ethnology, Smithsonian Institution, Washington, D.C. 1880 and following years. (out of print; check the government documents section of large libraries)

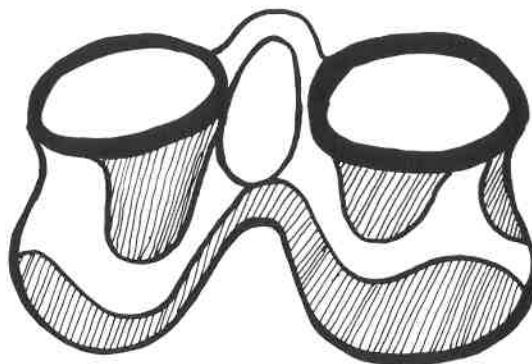
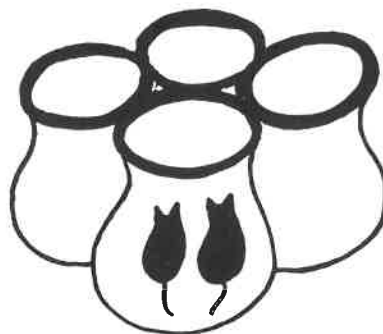
Bryan, Nonabah G. *Navajo Native Dyes*. U.S. Department of the Interior. 1940. (out of print).

Colton, Mary-Russell Ferrell. *Hopi Dyes*. The Museum of Northern Arizona, Flagstaff. 1965. (out of print).

Densmore, Frances. *How Indians Use Wild Plants For Food, Medicine & Crafts*. Dover, New York. 1974.



The Naskapi peoples in Labrador used powdered trade pigments mixed with crushed fish eggs as a fixative. This paint was then applied to skins with little painting tools carved from bones. The tools were carved in such a way as to allow the painter to keep lines evenly spaced or to make regular bars, dots, or circles.



Zuni paint pots called "hel-i-po-ka-tehl-le" if they were large or "hel-i-po-ka-tehl-tsan-na" if small. These were single or multiple pots often with handles in which mineral colors were mixed with water.

spinning WHEELS PRODUCTION

by Brucie Adams

This article was originally meant to be an examination of pricing handspun yarn. As Convergence '78 drew near, the chance for meeting or contacting a number of spinners was too good to miss, and as a result, other questions came up. Lee Carlin was kind enough to allow me to pass a list for names in her session on production spinning. There are many spinners now active and certainly the thirty I wrote are only a very small part of the whole. I wish to thank all those who answered—there were only three who did not.

Because I knew I was prevailing on the time of very busy people, I sent a much shorter questionnaire than I would have liked. For the most part the answers were full and informative. I did not try to explore the philosophy of hand-spinning and hand-spinners, but only asked about the most practical aspects. The questions were as follows:

1) How do you price your handspun yarns? What factors do you take into consideration?

2) Are the yarns you spin for sale the same as you spin for your own use? Do you find it necessary for yarns to look Very Handspun to sell well?

3) What proportion (approximately) of your craft-derived income comes from the sale of handspun yarn?

4) Any comments on being a production spinner?

As for pricing—I can only say that it is a good thing that spinners have a deep love for their craft. It certainly is not going to make anyone rich. Many supplement their incomes by weaving, teaching, raising sheep or goats, and in a variety of other ways. Some, like Paula Simmons, have been spinning for a long, long time (and she *is* making her living by spinning), others have only been spinning for sale for a year or two.

As is to be expected, there are many systems for pricing in use. Two said they use a formula, in both cases three times the cost of the raw material. One prices one way for strangers, and another way for friends she knows will treasure what they have. Not everyone gave specific figures for prices. Paula Simmons has not raised her prices for a long while as a protest against all other prices going up—this in spite of all her costs increasing. I am listing the price for a basic, natural one ply yarn, when this was given, in order to have a comparison. One question I wish I had asked is whether tops or raw fleece is used. Quite naturally some charge a different price depending on if the fibers are prepared or not. Prices range from \$.60 to \$3.00 an ounce.

\$.60 - 1	\$1.50 - 2
\$.70 - 1	\$1.75 - 2
\$.92 - 1	\$2.00 - 3
\$1.00 - 5	\$3.00 - 1

\$1.25 - 2

Obviously, the area between \$1.00 and \$2.00 is the most popular. With many machine-made, imported yarns selling for about \$1.25 an ounce, handspun yarns are competitive with these.

None of the spinners said she took into consideration the cost of soap and fuel to heat water for scouring, nor,

directly, the cost of dye materials and/or mordants. All charged more if the yarns were dyed in some way, most if they were plied, most for the use of colored fleece (which generally is more expensive) or exotic fibers. Only Bette Hochberg (see her article in this issue) prices by the yard. Paula Simmons stresses labeling with both the yardage and the weight, but she prices by weight. Since Hochberg's reasons for pricing by the yard are very good ones, perhaps more spinners will follow her suggestion. Many spin samples of yarn, carefully timing themselves, and then set a value on that time (mentioned were \$4.00 and \$5.00 an hour). Apparently those using raw wool did not count the time spent preparing the fleece. Since it has been my experience that this part takes at *least* as long as the spinning, this does not seem too practical. An exception would be if one were using New Zealand fleece, or one which is exceptionally clean. Several people mentioned they consider various factors, but end up charging "what the market will stand". Some in order to get a good price use exotic fibers or dye processes and materials. That this approach works I witnessed for myself at Convergence when observing the crowds around Victoria Rabinow's booth where she was selling yarns and fibers dyed with her own special process.

Related to the pricing of yarn is the speed of the individual spinner. Several people stressed the importance of having a good, well-maintained production wheel. After trying several at Convergence I was totally convinced (and am now anxiously awaiting delivery of one). I also had the experience of trying one which would not work on the faster pulley unless the bobbin was half filled; therefore, be sure you try the wheel before buying it. Naturally, the degree of commitment to production of handspun yarn must be considered, but being able to at least double output for the same time period certainly is going to make the additional cost of such a wheel practical, if one is serious, or intending to be serious, about becoming a production spinner.

Marketing is important. I got particularly cogent statements from two people about that. Education of the public is probably the most important element. One spinner is very discouraged about this side of the problem and says she spends far more of her time than she wants dealing with it. Miranda Howard, of the Shepherd's Harvest in Evanston, Illinois, says that the yarns she has found to sell the best are those that can be used for several techniques like knitting, crochet, weaving and basketry. Something like a soft-to-the-skin two-ply yarn would do. She also stresses regular production so that a return customer can find the same type of yarn. A regular source of fiber is recommended to add to the uniformity of the yarn. Howard does not feel that spinning many kinds of yarn is a good idea. She says, "Market just one type until the market for that is stable—then branch out into other types and textures. It is better (and less discouraging) to start out with one good yarn in several shades rather than to have

SPINNING PRODUCTION

lots and lots of yarns that one can't keep up with on the production end of things." She feels that money spent on advertising is a good investment. Margaret Weinrod (Albuquerque, New Mexico) wrote, "Repeat individual orders make quite a difference." This surprised me a bit for she is selling in a highly tourist-populated area where one would not expect repeat orders to be a factor. Carol Anne Munson (The Brewery Gulch Spinster, Camp Verde, Arizona) stresses the importance of good business sense and the finding and maintaining of a market. Carol Anne has recently acquired two sales representatives to handle her yarn in Arizona. Pat Anderson (Spinshuttle Studio, Roseville, Minnesota) examined the market in her area and found that there were a great number of "really experienced knitters who use top quality yarns because their level of competence justifies paying a premium for materials." She said that she spins for those who want materials which compliment their own skill, and "garments designed to be worn for years require *Classic* design and *Classic* yarns." Like Miranda Howard, Anderson has found that a soft two ply yarn best suits the needs of her customers. Unlike Howard, though, she has found word-of-mouth to be the best advertising.

Related to advertising is packaging. Paula Simmons emphasized this at Convergence. An attractive label with your name on it to let the customers know that it is made by a real person is a necessity. Annie Kelly (Potomac, Maryland) says, "I like best spinning a personalized fleece and my customers like wearing a hat from Sophie or weaving with Hannah." If yarn is intended for sweaters, it is best to tie together enough for this purpose so it can be sold as a unit. Otherwise a sale might be lost because someone bought one skein, leaving an insufficient amount for a sweater. Supply individual skeins for sale for the person wanting a small amount.

One of the problems of marketing is spinning the kind of yarn which will sell, hence my question is it necessary for yarns to look Very Handspun to sell? I got a variety of answers to this. Obviously Howard and Anderson do not think so; however many people said "yes." The answer certainly lies in the sort of market for which the yarn is intended. The girl I spoke with from the Xochi Spinners coop (sorry and apologies—I forgot to write down her name) said that good yarns did not sell as well as "funky" yarns, particularly at fairs. Perhaps the fair-goer is not as appreciative of craftsmanship and is looking for something obvious to put into a hat or hoop-weaving. I would be interested to know if customers at a fair only buy a skein or two, or enough for a sweater or large weaving. One lady who said I could quote her (but I won't) said, "I spin for people who make wall-hangings, so my yarn for sale looks 'Handspun' (privately I call it 'Yukky')." On the other hand, Margaret Weinrod says, "some basket makers have bought my yarns saying they are the only ones available here which are of consistent enough nature for their purposes."

I am not sure what this is saying about weaving, but most of those who spin for weavers find the thick-and-thin yarns, or those spun from uncarded wool, do the best. Those spinning for knitters have better success with a well-controlled two ply. All agree that there is little percentage in spinning a yarn that duplicates a machine spun. This is reasonable, since in most cases the yarn is selling for a premium price. Several spinners said it did not seem to matter what the yarn was like so long as it is vegetable dyed—one spinner uses commercial yarns for such dyeing and spins natural colored fibers for sale. If people are only buying the mystique of plant dyes, this might be practical.

Several spinners who count themselves as production spinners spin mostly for their own use, incorporating the yarns into item which they then sell. Only the excess yarns are then offered for sale. Jane Armstrong (Livermore, California) started spinning for her own use, but went into production spinning after her yarns attracted attention when she used them to demonstrate weaving at shows.

A couple of spinners expressed a great deal of frustration at not being able to find a market for the fine yarns they like to use personally; most, however, found they could sell the kind of yarn they use themselves.

Only a few spinners gain most of their income from spinning, or selling items made from handspun yarns. Paula Simmons was unique among those I contacted; the others have supplementary incomes of various kinds, some selling sheep, or other related crafts. Two reported that 80% of their craft-derived income came from sale of handspun yarns, one 98%, one 67%, and several 50%. Whereas production spinning may not be supporting very many, it does look feasible.

Most spinners who responded expressed optimism and enthusiasm for production spinning. One simply said, "Help!", but most feel they are moving in the direction they want to, and the public is beginning to understand handspun yarn. Pat Anderson raised the point that production spinners are always going to be producing for other craftsmen—and so will be producing the yarns knitters and weavers like to use, "not yarns spinners like to make." There should not be any incompatibility here, though, as yarn as an end in itself is useless. Anna Siemer (Sebastopol, California) wants to devote a lot of her efforts to education and market development, "so my efforts to sell and teach stores and purchasers about the hats, etc. and wool will spread out in circles and benefit others. I am never the beginning and end of a chain of happenings, always somewhere in the middle, learning from those who were before me and teaching those who follow..." Carol Anne Munson said, "It is a beautiful contemplative vocation and is a link, it seems to me, with all the spinners who have ever spun, who have had the same love/hate relationship with the wheel that I have had."

Maybe a summation is best expressed by Linda Cameron of Winnipeg: "Having a great time, but busy and underpaid."

PRODUCTION SPINNING

DOES IT PAY TO SPIN YOUR OWN YARN?

by Bette Hochberg

"Well, I can maybe see weaving something like that, but I'd never think of taking the time to spin all that yarn."

We have all heard that comment, so let's analyze whether it is worthwhile to spin. If you are counting on selling your weaving, perhaps you can't afford not to spin. Usually handspun items sell more readily than machine spun, because they have a distinctive handmade look. Handspun yarns retain more of the character of the fibres and are more appropriate to hand weaving. If well spun they are generally stronger than machine spun yarns, and wear better.

You are not confined to a limited selection of fibres and sizes, as you are with machine spun yarns. You can choose any spinning fibre from any level of quality. And these can be spun smooth or textured, even or slubbed, in any size and with a light, medium or hard twist. You can use these yarns single or plied—natural or dyed. So you can custom design yarn exactly to fit any project.

Spinning does not require as much time as is commonly believed.

There are many stories and old wives' tales that increase with the telling. Let's look at some of them.

It takes seven or eight spinners to supply one weaver. This is simply not true. One good spinner using a handspindle can supply the yarn for one good weaver using a tapestry, backstrap or other loom at an equal level of technology. A fast spinner on a contemporary production wheel can keep pace with a fast weaver on a modern floor loom.

It takes a day to spin enough yarn for a pair of mittens. Not unless there is something agonizingly wrong with the process. 800 yards to the pound is a size of wool yarn appropriate for mittens. Assuming I would need a four-ounce skein, it would take me 15 minutes instead of a day. I canvassed eight spinning friends about this, and none estimated it should take more than a half hour.

A spinner walks twenty miles a day when using the great wheel. It's not likely this style wheel would be regaining popularity if this were true. To walk 20 miles a day, you would need to spin at 35,000 yards a day—it is unlikely any spinner in the history of the world has ever done that.

It's impossible to spin enough on a handspindle to be worthwhile. If this were true, Europe would have gone naked until the thirteenth century. For at least 9,000 years before the wheel, all threads, yarns, ropes and cordage for clothing, household, war and commerce were spun on handspindles. A fast spindle beats a slow wheel. If you are spinning something which requires a lot of twist—short staple fibres or very fine yarns—you can spin them faster on a good spindle than you can on a bulk-head spinning wheel with a low drive ratio. I have seen good supported spindles give as many as 800 twists each time they are twirled. By contrast, many bulk spinners give only four twists each time they are treadled.

It is possible to make a living selling handwoven things made only of handspun yarns, but it does take hard work and planning. Here are some recommendations:

Choose your equipment wisely. Once you become an experienced spinner you will sometimes want to spin faster than even the fastest wheel. So it's practical to buy the most efficient and versatile wheel you can afford.

Don't limit your spinning to wool. Many other natural fibres require no preparation for spinning and some, like silk, cashmere and camel down, go much farther than wool, and they often sell better.

A sturdy drum carder will save time. This is also a quick way to blend fibres and colors.

If you are doing weft face weaves where the warp is not visible, you might consider using machine spun warp. When you are planning to spin your own warp, always sort out the best fibre for the warp, since it is necessary to spin it more smoothly than weft yarn.

Save time by planning weaving projects, and then spinning for the entire project. For instance, if you decide to weave 10 shawls at one half pound each, you would need to spin about 5 pounds of clean fibre. Decide how many yards of yarn you need, spin, set the twist, and wind on a warp about 25 feet long. Then weave, fringe and finish all together. You will waste less time and use less fibre than if you did separate projects.

If you wonder how to price handspun yarn, you might consider this method. Determine how much you want to earn per yard you spin, and add to this the cost of your fibre. For instance, I might pay \$4 for a pound of clean fibre, and spin it at 800 yards per pound. If I charge a penny and a half for spinning, it would be \$12 for spinning plus \$4 for fibre—or a total of \$16 per pound.

It would take me one hour to spin and a few minutes to set the twist. This is a fair price for doing something I love, and a fair price to the customer. It takes into consideration the lesser time for thick yarn and the greater time for a thin yarn, and the varying prices of fibres.

SSSSSSSSSSSSSPEED SPINNING

by Nancy Thompson

Most handspinners today have resigned themselves to the fact that spinning their own yarn is both time consuming and tedious work, though most of us also find it a soothing way to unwind. But as more weavers and knitters seek a custom look for the yarns they use in their own work, and as the market for handspun yarn as a product in itself also increases, ways to expedite the spinning process become important. Before the Industrial Revolution, speed spinning was universally used. But since the necessity for handspun yarn has virtually disappeared in this country, the need to speed spin has also declined. The typical spinner now uses only the two-handed inchworm method. This is a good, safe technique,

PRODUCTION SPINNING

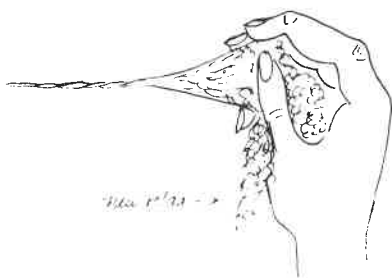
and is best used to spin thick and thin yarn. However, the output of this method can never be accelerated, and it is impractical for many fibers such as cashmere, camel down, and short-staple wool.

Consider the capabilities of your equipment before attempting to speed spin. Some spinning wheels are simply not suitable for this technique. A good wheel for speed spinning should meet the following requirements:

- 1) It should have a heavy, well-balanced drive wheel for momentum and smooth revolution. A poorly balanced wheel will allow the drive band to slacken and jump the track.
- 2) Firm and secure floor contact. Speed spinning puts quite a bit of stress on a spinning wheel, and if it has even a slight wobble this condition will worsen, putting undue stress on poorly designed parts.
- 3) A large drive ratio. To speed spin a fine yarn requires a higher drive ratio than to speed spin a medium or thick yarn.
- 4) Good lubrication. This cannot be over-emphasized. Use a light oil (such as WD-40) for fast moving parts and a heavy oil or grease (such as vaseline) for slower moving parts.

The most important step in speed spinning is to have a well prepared fiber supply. Easy slippage of fibers is essential. This can be accomplished by: 1) carding and picking well, 2) applying spinning oil, or, 3) in the case of a smooth fiber such as alpaca or dog hair, washing prior to spinning. Washing will prevent fibers sticking due to dirt or foreign matter. To spin fast, always avoid wasted or excess motion. This includes keeping the fiber supply within easy reach.

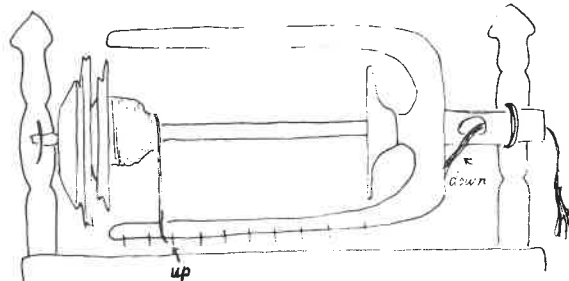
Begin by attaching the rolag (or Z strip) to the leader yarn as usual. Draft out these fibers until the right hand is at least a foot away from the orifice. Never clutch the fiber supply. Now slowly let go of the yarn with the left hand, allowing the twist to travel almost to the fiber supply. The triangular shaped drafting area will be much smaller using this method. Move the drafting hand away from the orifice, keeping just ahead of the twist. Pull against the tension of the spinning wheel to facilitate drafting. Always keep a two-way pulling action on the drafting area. That is, let the tension of the spinning wheel pull these fibers toward the orifice as you gently draft away from it.



Now you may ask, "What do I do with my left hand?" Several things, actually. Use the left hand to make tension adjustments, to reach for each new rolag, to pick foreign matter from the fiber, or to scratch. Occasionally the left hand will be used to roll slubs back and forth between thumb and forefinger to minimize irregularities. Last, it will sometimes be necessary to pinch the spun fibers to make drafting easier. If the fibers in the drafting area are not slipping properly, it is usually due to insufficient preparation.

Splicing can be another time consuming step if you have to stop or slow down to do it. Mastering this step will save time and greatly increase yarn production. The rule of thumb here is, *Always Attach Unspun Fiber To Unspun Fiber*. This produces a structurally sound yarn and an undetectable splice. The feathering of the fibers of the last rolag will be done with the ring and little fingers of the drafting hand. The new rolag will be handled and fed into the drafting area by the remaining fingers and thumb. Your hand should be in the same position as it would be to hold chopsticks. For some people it is easier to splice by reversing this technique, i.e., hold the fibers from the old rolag in the first three fingers, and feed fibers from the new rolag with the ring and little fingers (see drawing).

On a spinning wheel with a two-way treadling action it is possible to change flyer hooks without completely stopping the spinning process and without using the hands. Begin by hooking the yarn on all the flyer hooks, thus filling the back of the bobbin first. When ready to change hooks slow down just enough to allow a slight reversal of the wheel giving the yarn just enough slack to slip off one hook. Then take up the slack and continue to spin.



A common problem of speed spinning is that the yarn along the flyer hooks will flair out in an airborne arc. Bending the hook nearest the orifice into a more closed position will help to minimize this problem. Or you can thread the yarn through the orifice, then under the flyer arm and back on top of the flyer arm at the point where the yarn is to wind onto the bobbin (see drawing).

It has been my experience that nearly every fiber spins best to one size. Whenever possible it is best to spin it to that size. I don't recommend trying to speed spin with grease wool as it is usually rather gummy, especially if it was sheared late in the summer. It is worthwhile to become proficient at several different spinning techniques (matching technique to fiber requirement) and to become a competent spinner with either hand.

in the beginning . . .

Did you ever weave a beautiful piece of fabric, sew it painstakingly into a jacket, and then find that it looks better on the hanger than it does on you? If the fabric is too stiff to drape right or too floppy to hold its shape, too cold in spite of its thickness or too willing to attract dirt, it can be a big disappointment. Though the weave or the size of the yarn could be the culprit here, chances are good that these kinds of disappointments are due to a poor choice of fiber for the job.

Raw fibers, in spite of how they are spun, have certain inherent characteristics that affect how they perform in a finished product. Which particular qualities you want, of course, will depend on what product you wish to make. In making clothing the drape of the fabric will be important, either to make the fabric crisp enough to tailor or soft enough to make a flowing dress. Moisture absorption and heat conductivity will determine how comfortable it feels in the season you intend to wear it. The fabric's washability and tendency to absorb or repel dirt will be important. If it is a drapery fabric you wish to make, you'll want to consider the fiber's resistance to sunlight damage and its inherent fire retarding qualities. Woven sculpture usually requires control of the drape or stiffness of the fiber, some consideration of its tendency to stay clean looking, and some thought about its strength. Whatever your intended product, look at which qualities it demands and what qualities the various possible fiber choices offer. Each fiber has its own natural drape, moisture absorption, heat conductivity, washability, wrinkle resistance, sunlight resistance, and strength.

DRAPE

Drape is important to clothing and often to soft sculpture. In these photos, the same structure (part of a larger piece by the author) is made in crisp commercial nylon and in soft handwoven cotton. The cotton is too limp to hold the intended shape; the nylon is a better fiber for this purpose. These fibers are on opposite ends of the drape scale: nylon is quite stiff, cotton is quite limp. Good drape for clothing is between these two extremes. It should have body but not be too stiff.

Wool and silk are the most satisfying natural fibers to use where drape is important. Some rayons, generally the ones with long filaments, do a fine job of imitating silk in their draping qualities. Shorter filament rayons, or thick rayon yarns, are too stiff to drape well. Linen drapes less well because it is too stiff, even when finely spun. Cotton goes to the other extreme. It is so soft that handwoven cottons have little body. This makes them appropriate where soft folds are called for and a limp fabric is needed. Among the synthetic fibers, orlon, acetate, and some nylons have the best draping qualities. Handwoven polyester fabrics are not very satisfying in their drapability.

MOISTURE ABSORPTION AND HEAT CONDUCTIVITY

How well a fiber absorbs moisture and how it conducts heat both have a big influence on how it feels in a clothing fabric. Non-absorbing fabric feels clammy when the weather is a little too hot or a little too cold. That's why a raincoat is unbearable as soon as the rain stops and the sun comes out. It cannot let your body moisture out. Moisture absorbing fibers will feel more comfortable next to your

skin and will make more comfortable garments for circumstances where the temperature, humidity, or your level of activity is likely to change.

Heat conductivity is the other big consideration in choosing a fiber for clothing fabric. Wool is moisture absorbing but not heat conducting. This makes wool comfortable to wear in a wide range of conditions, but particularly suited to cold weather when it will keep your body heat in. The same qualities are present in the other mammal fibers such as alpaca, camel, and cashmere.

Silk is similar to wool in these two characteristics. Silk is often thought of as a summer fabric, but it is cool only when it is woven as a very thin fabric. In thicker yarns it makes good winter clothing.

Cotton is moisture absorbing and heat conducting, so it is comfortable to wear in a fairly wide range of conditions, but is especially suited to summer clothing since it lets your body heat escape. Linen is also very moisture absorbing and heat conducting.

Rayon is a good moisture absorber but it tends to feel wet and heavy in humid weather in contrast to wool, which absorbs a lot of moisture without feeling wet. Rayon is a good heat conductor, since it is a plant fiber like cotton and linen, so it is comfortable in summer weather.

Man-made fibers are quite non-moisture absorbing. Their heat conductivity depends largely on how they are made. They are not particularly good conductors to begin with but they can be made even warmer by crimping during manufacturing, so smooth synthetics are generally cooler than those made to imitate the look of wool.

CLEANLINESS AND WASHABILITY

How readily a fiber attracts and holds dirt and how easily it gives it up in cleaning are important for clothing, interior design fabrics, and for woven sculpture which will rarely if ever be washed or dry cleaned. Fibers with smooth surfaces as seen under the electron microscope are most dirt resistant since the dirt is not absorbed so it can be more easily removed from the surface by water, solvents, or vacuuming. A nappy surface attracts and holds dirt more, and also requires more care in laundering.

Glass fiber and all the synthetics resist dirt longer and clean more easily than natural fibers. Silk is the smoothest surfaced natural fiber. It sheds dust and gives up dirt easily in cleaning. Linen's hard, smooth surface also sheds dirt. Most of the rayons shed dirt reasonably well. Cotton has a fairly short fiber and a somewhat rough surface, so it holds dust and dirt more than the other fibers already mentioned. Wool, because of its scaly surface, attracts dirt and holds it.

WRINKLE RESISTANCE

In these days of wash and wear fabrics and the electric dryer, we all know the value of wrinkle resistance. Does anyone ever use an iron any more?

Wool and its kin mohair, camel, cashmere, and alpaca are excellent wrinkle resisters. Silk is also very wrinkle resistant. Cotton and linen wrinkle easily. Among the man-made fibers, rayon wrinkles most, dacron wrinkles least, while nylon and orlon fall in between.

FLAMMABILITY

Clothing and interior design fabrics, including fiber sculpture, need some resistance to fire to be reasonably

which fiber?

by Barbara Liebler

safe. There are laws about children's sleepwear and about fabrics for public buildings, and common sense tells us to take a cautious approach to most flammable fibers. All fabrics react to strong heat, but they react in different ways. Acetate, dacron, nylon, and orlon fuse and shrink away from the heat but do not flame. Wool and its related fibers and cotton, linen, and ramie all will burn. Cotton and linen burn with a bright flame and will continue to smolder after the flame is out, but wool burns with a small flickering flame and will not smolder. Rayon burns well, smelling like paper as it burns. Consult the relevant laws and do flame tests on any fabric to be placed in a public building.

SUNLIGHT RESISTANCE

Any fabric that will hang in direct sunlight, such as draperies, will need to resist sun rot. Those readers who live in Seattle may not need to worry about this, but we Coloradans certainly do!

Unfortunately, my sources of information disagree on this subject. Among natural fibers, one source says that sunlight has no appreciable effect on the strength of wool while another source says wool loses strength in sunlight. They seem to agree that, other than wool, the natural fibers fall into this ranking, with rayon being the most resistant: rayon, linen, cotton, silk. Silk rates very low in its resistance to sun damage. Among the man-made fibers, glass, polyester, and orlon keep their strength well in sunlight, while nylon will deteriorate after long exposure. All the man-made fibers, however, are rated higher than silk in this regard.

STRENGTH

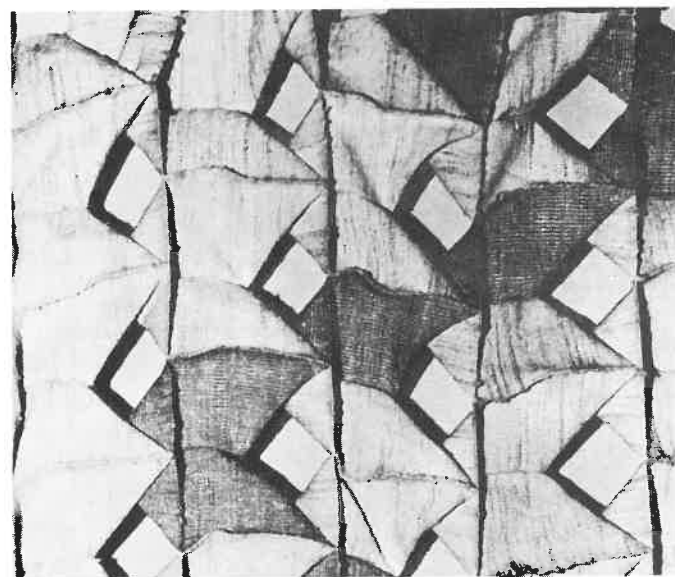
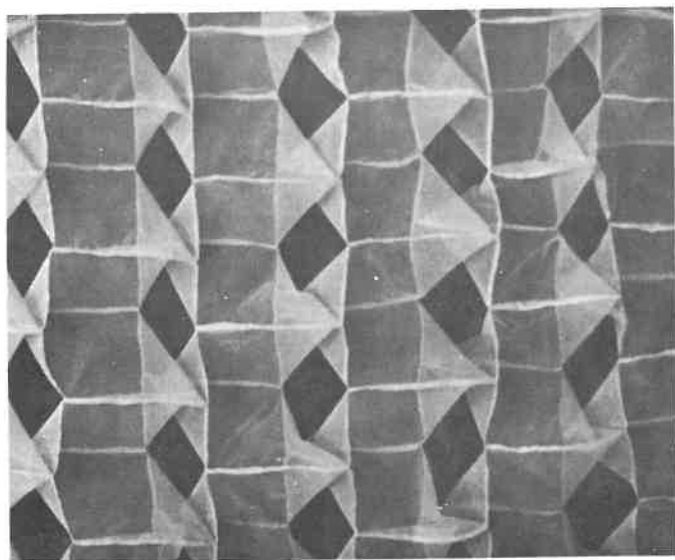
The strength of a fiber influences how long a fabric will wear, especially under heavy use. This is especially important for clothing and upholstery fabrics, for sling chair fabrics and various types of straps, and for large sculptural fiber pieces where the top must support the weight of the whole work.

Strength has two aspects: tensile strength, which keeps a fiber from tearing under stress, and abrasion resistance, which keeps it from wearing away by rubbing. A large fiber sculpture will need tensile strength; upholstery fabric will need abrasion resistance.

For tensile strength, fiberglass, nylon, and polyester rate very high. Silk is the strongest natural fiber, though it is weaker when it is wet. Linen is very strong, and gets stronger when it is wet. Cotton is quite strong and it too gets stronger when it is wet, an increase of as much as 30%. Mercerizing makes it even stronger, though still not as strong as silk or linen of the same size. Rayon is weaker than cotton when dry, and loses 40%-70% of its strength when wet. Wool has the lowest tensile strength of the natural fibers, and is even weaker when wet.

Nylon has great resistance to abrasion, which is probably why it is used so much in commercial upholstery fabrics and carpets. Dacron and ramie are strong against abrasion, while cotton, linen, silk, and wool are rated only fair. Resilience, however, helps a fiber to resist abrasion and wear longer; this helps wool, which is springy, resist abrasion better than linen, which has no stretch. It gets complex!

There is a lot to consider in choosing the right fiber for



The same structure (part of a larger piece by the author) is shown here in crisp commercial nylon, in soft handwoven cotton. The cotton is too limp to hold the intended shape; nylon is the better fiber for this purpose.

the job, and you may have to settle for the best of the possibilities when you find that no fiber is excellent in every quality you need. You may have to sacrifice wrinkle resistance in order to get the right amount of drape, for example, or decide whether heat conductivity or abrasion resistance is more important to your purpose. There is not always a perfect answer, but a careful choice of fiber will save many a disappointed moment.

REFERENCES

- Cohen, Harry and Linton, George E., *Chemistry and Textiles for the Laundry Industry*, Textile Book Publishers, a Division of Interscience Publishers, New York, 1961.
Corbman, Bernard P., *Textiles: Fiber to Fabric*, McGraw Hill, New York, 1975.

(continued from page 41)

Homespun is used as weft, at times in its natural colors, often dyed. A commercial 5-ply wool yarn is used as warp, set at about 3 or 3 e.p.i, although no exact measurement is taken. Pieces are nearly exclusively worked in plain twining, in which the paired wefts catch a single warp thread, causing the design to be reproduced on both sides of the weaving. There is little public demand for twilled Salish patterns; so even though it makes variety for the weavers, it doesn't sell well; so the weavers work in twining. The buying public seems largely unaware that the early Salish weavers made use of such a wide variety of materials and techniques, and that the legacy of Salish weaving is of such richness in experimentation and recognition of possibilities.



Wallhanging by Monica Phillips (Williams). The designs are the diamond for love and understanding, the half-diamond for passage of time, lightning for great power of wrath against evil, and the joined half-diamond for eternity.

The early weavers had developed four colors to use in addition to natural wool and fiber colors—black, brown, rusty red, and yellow—and three mordants—copper, iron, and urine. Hemlock bark, fern roots, or birchbark with an iron-rich mud added, would yield black. Hemlock bark boiled in urine made brown; the husks of hazelnuts made a reddish-brown. Red as well as black and brown could be extracted from alder bark. Yellow came from 'wolf moss' (*evernia vulpina*, a lichen) which was obtained in trade from people in the interior. Oregon grape roots gave a more greenish yellow.

This color range has broadened in modern times to include dozens of different shades and colors extracted from plants, roots, and bark. The dyers use alum, tin, and chrome mordants as well as iron and copper. Colors are

soft; greens, golds, and browns are popular, as well as natural fleece colors. Some top-dyeing is being done, and new dye plants are always being tried.

There were and are no formal restrictions on use or combination of color and design. These have been influenced to some extent by the public's stereotyping of Salish weaving as being limited to geometric shapes executed in twined weave; and as with any art form, the limitations of the medium have some influence, so that straight lines, geometrics, and stylized angular forms are preferred. But the work of the Salish Weavers has been to re-establish their art form as something of the present, and while preserving the past in its simple and beautiful designs, to restore the foundations of their art. Each weaver builds a set of designs; once she develops her interpretations of shapes and how they can interrelate, that design can't be used or copied by anyone else. With the establishment of recognizably-individual styles, a tradition of 'family patterns' and the right to their use is re-established; possibly a situation will exist as with weaving elsewhere, or with quilting, where tie-ups or designs acquire the name of their originator, with the knowledge being passed on to chosen successors.

With its revival, the art form has refined itself and narrowed its scope. The tendency to work with the tradition of the Nobility blanket is maybe partly because the variety of patterns and combinations offer wide possibilities for exploration and development of personal designs.

Salish weaving as it exists today does represent a revival. The spirit of exploration, the simple technology, the adaptability, have all been preserved, and Salish weaving is a growing and viable presence. With the first commissioned work, a 225-square foot tapestry by Mary Peters for the Hotel Bonaventure in Montreal in 1967, Salish weaving began to be recognized. The Prime Minister has a tapestry made by Anabel Stewart, grand-daughter of Mrs. David, one of the last of the old-time rug-makers. Chilliwack Arts Council has established a permanent collection of works which is regularly displayed. Pieces have been bought by decorators and tourists for homes all over the world, and museums are good customers. Both the Salish loom and weaving methods are in use throughout the weaving community; the current popularity of natural vegetable dyes here can be partly attributed to the Salish influence. It is a textile art with prestige, based on its existence as a native art form created from natural and locally-available materials, making it both geographically and culturally distinct.

REFERENCES

- Wells, Oliver N., *Salish Weaving: Primitive and Modern*, published by Oliver N. Wells, Sardis, B.C., 1969 (Revised Edition).
- Kissell, Mary, "A New Type of Spinning in North America", *American Anthropologist*, Vol. 18, 1916.
- Kissell, Mary, "Organized Salish Blanket Pattern", *American Anthropologist*, Vol. 31, 1929.
- Lane, Barbara, "The Cowichan Knitting Industry", *Anthropology in British Columbia*, Vol. 2, 1957.
- Willoughby, C.C., "A New Type of Ceremonial Blanket from the Northwest Coast", *American Anthropologist*, Vol. 12, 1910.

The Salish Weavers, P.O. Box 307, Chilliwack, B.C.
President: Josephine Kelly

Coverlet Information Sheet 2.3

PATTERN NAME: unnamed scattered motifs
with train border ("Transportation" group)

WEAVE STRUCTURE: Jacquard double

PATTERN REFERENCES: border similar to Swygert p. 229 (see notes, below)

WARP COUNT: 18 cotton and 18 wool/inch (36 e.p.i.; 14/cm.)

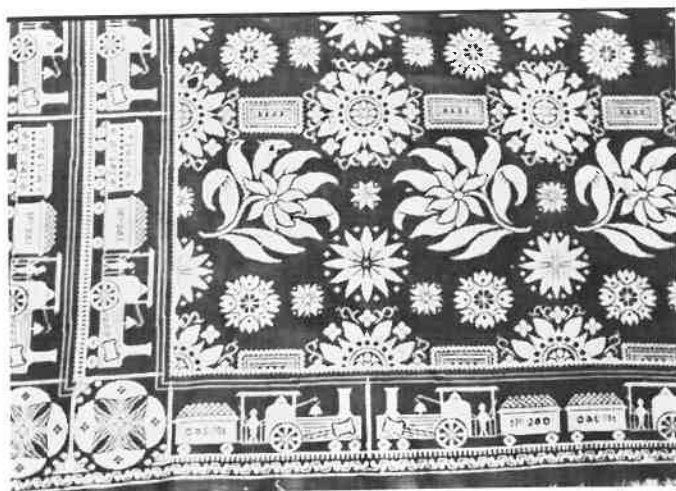
WARPS: 2-ply Z-twist S-ply cotton
2-ply Z-twist S-ply wool

WEFTS: same as warps

COLOR: wool warp and weft: dark blue (probably indigo)
cotton warp and weft: natural off-white

SIZE: 79" W x 87" L

Photos by Carol Strickler



NOTES: Coverlet is 2 panels (1 seam). It has warp fringe (both warps) on bottom and weft fringe (both wefts) on sides. Top was originally finished by turning both surfaces to the inside and overcasting the two folds together; it was later covered with a brown and red printed cotton bias binding, which has faded and deteriorated.

The pattern of the coverlet center is a conglomeration of seven unrelated motifs, three of which also appear in the center of a Michigan-owned coverlet with a similar border. The 4-petaled corner motif and the small scroll border are different from any seen in print so far, although the corner is almost identical to that on the Michigan-owned coverlet. There are striking similarities between this train border and the one on the "Hemfield Railroad commemorative coverlet" in the books, but there are also many differences. The same is true in comparison with the non-commemorative coverlet mentioned above. Small differences appear in such details as the engine and tender wheels, the lumps of coal in the tender, the tracks and ties, the vertical bars between trains, etc. The major difference is that the trains in the side borders of this coverlet all point in one direction (down the blue side and up the white), and are not nose-to-nose as on the other coverlets; in addition, each side train has an additional car, and each says "No. 241" on the tender and "PIQUA No. 241" on the car (all others, including lower border of this one say "No. 240"). The flower, leaf, and grapevine border at the top (badly tattered) says "PIQUA O." at the ends. Entire coverlet is worn and torn.

This piece has no indication of weaver or date, but the style indicates western Ohio ca. 1850. It is assumed that it refers to Piqua, Ohio (Miami County). It is understood that the Hemfield RR of the book-illustrated coverlets was a small, partially-completed line in southwestern Pennsylvania, and that the commemorative coverlets are not as rare as the books would lead one to believe. Other very similar non-commemorative coverlets such as this one are also still found.

PRESENT DATE: June 1978

PRESENT LOCATION: Privately owned, Boulder, Colo. (Joan Pyles, 975 Gillespie)

SOURCE: Purchased in a Boulder antique shop in the 1960's

HISTORY: unknown

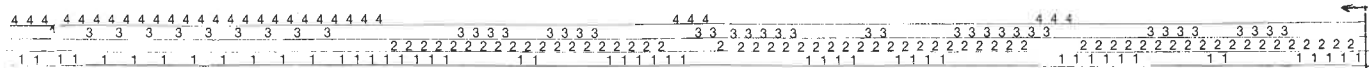
Coverlet Information Sheet 2.4

PATTERN NAME: variation of "Queen's Delight" **WEAVE STRUCTURE:** 4-shaft overshot
(also called "Mary Simmons" because

Hall lists it as The Mary Simmons Coverlet)

PATTERN REFERENCES: Swygert p. 117; Davison & Mayer-Thurman #20 (p. 36); Burnham #311 (p. 235). Similar to Hall pp. 216-217 and Atwater draft #61 (p. 163)

DRAFT:



WARP COUNT: 32 e.p.i. (12½ + /cm.)

WARPS: unevenly-spun single-ply Z-twist cotton

WEFTS: tabby: same as warp

pattern: 2-ply Z-twist S-ply wool

COLOR: warp and tabby: tannish natural

pattern: rosy tomato red (probably madder) and uneven bluegreen (appears to be an indigo-overdyed yellow). About 18 inches of one end of one panel has the bluegreen replaced by bright dark blue (probably indigo)

SIZE: 73¼" + fringes W x 79½" + fringe L (12 repeats + 2 borders x 11 repeats + 1 border)

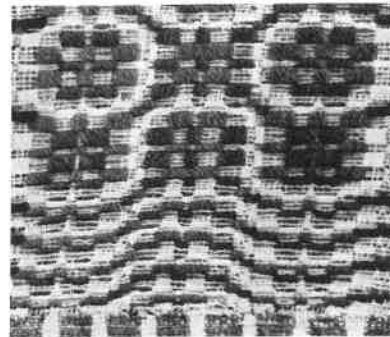
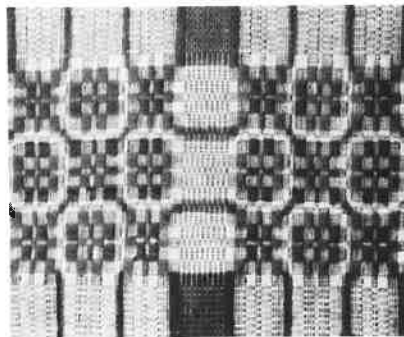


photo by Carol Strickler

NOTES: Coverlet is 2 panels (1 seam—fairly well-matched). Bottom and side have twill borders. Bottom has narrow tabby hem, and bottom and both sides have added tape-woven fringe which is sewn on with (apparently) linen thread. Tape-woven fringe is ½-inch warp of alternate threads of tomato red wool and natural cotton, and wefts in bands of ½-inch of tomato red wool (paler and less rosy than coverlet pattern weft), ¼-inch of natural cotton, ½-inch of sage green wool (paler and greyer than coverlet pattern weft, with some yellowish streaks) and another ¼-inch of natural cotton; most of the cotton is worn off near the edge of the tape but the wool still forms as much as 2 inches of fringe. The top of the coverlet has at some time been cut off (probably to remove a badly worn area), and has been overcast-stitched with black thread and then machine-stitched twice with black thread and bound with a wide strip of streaky grayish-olive-green cotton fabric using machine stitching and avocado green mercerized thread. Coverlet is worn, badly torn in some places, and somewhat color faded in the central area. The family has always said that the “blue area at one end of the panel was where the weaver ran out of green thread and had to use blue”, and they are probably right.

Since documentation, coverlet has been restored by couching torn areas to several layers of nylon net backing, vacuuming, carefully hand-washing and blocking, and stitching to a white sheet backing to be hung flat on an inside wall.

PRESENT DATE: June 1978

PRESENT LOCATION: Privately owned, Denver, Colo.

SOURCE: a family heirloom, woven by owner's great-great-great-grandfather for his daughter's wedding gift, and handed down through eldest son of each generation.

HISTORY: woven by Peter Stine (b. 1811?) in Columbia County, Pennsylvania, for the wedding of his daughter Margaret (b. Jan. 1, 1837) to Jacob Beishline on Oct. 5, 1858.

BOOKS

Some of the most impressive literature on Native American textiles was written before or shortly after the turn of the century, when the primary sources, the native craftsmen, were still working in a relatively unbroken tradition. Unfortunately, many of these early works are hard to find; they were written under the aegis of museums or historical societies, and never achieved wide circulation, or they were published as government documents and lost in the stacks of only the larger libraries.

Fortunately, two presses have made it their business to reissue some of these early works; Dover Press has *Indian Basket Weaving* as well as collections of illustrations from early and hard-to-find Bureau of Ethnology reports. Rio Grande Press has an impressive listing of quality reproductions, including Charles Amsden's comprehensive *Navajo Weaving, Its Technic and History*; *The Navajo and His Blanket* by George Wharton James; and *Pomo Indian Basketry* by S.A. Barrett. For a complete list of their offerings, send a stamped envelope to Rio Grande Press, Glorieta, New Mexico 87535.

Much of the current literature is written for the scholar or the collector; few volumes, though, are aimed specifically at the craftsman who is interested in duplicating or adapting techniques to his own work. Among these: *Navajo Techniques for Today's Weaver*, an excellent work by Joanne Mattera from Watson-Guption; *Indian*

Basket Weaving by Sandra Corrie Newman (Northland Press) and, also from Northland Press, the now-classic *Working With the Wool: How to Weave a Navajo Rug* by Noel Bennett and Tiana Bighorse.

Sometimes the most useful and inspiring books are also the most unassuming. One case in point is Dr. Charles Hunt Whiteford's little *Golden Guide to Indian crafts*. Its only shortcoming is that it's so small (in size—not stature) that I keep losing it and can't give the exact title. Another is *Finger Weaving: Indian Braiding* by Alta Turner (Sterling). While the subject matter is narrow, it is covered better here than in many much larger and more expensive texts.

The Indian leaflet series from the Denver Art Museum includes a number of textile subjects, mostly on aspects of Pueblo weaving. These are available for only 25¢ each, yet are notably accurate and contain good bibliographies.

And something to look forward to: Kate Peck Kent's magnificent work on the cultivation and use of cotton in the prehistoric Southwest has been out of print for several years, but much of the material from it will be included in her new book on prehistoric weaving in the Southwest, due to be published soon by the University of New Mexico Press.

Linda Ligon

Late Arrival:

Pueblo Weaving and Textile Arts by Nancy Fox. Museum of New Mexico Press, Santa Fe. \$5.95, paper. A thorough, well-illustrated and attractive volume on the history, types, and techniques of Pueblo textiles.



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Professional Handweaving on the Fly-Shuttle Loom, by Laya Brostoff, Van Nostrand Reinhold, New York, 1978. 116 pp., hard cover, \$16.50.

Among the many thousands of handweavers in this country, there are only a handful who are truly professional production weavers. At last, one of them has taken the time to write a book about it. Laya Brostoff has earned her living as a professional weaver for more than 30 years, employing other weavers, and selling her work nationwide. Her experience is proof that it is possible for a dedicated person to build a career on production weaving.

She feels that one of the reasons we are a nation of hobby weavers is that we look for help and guidance to other hobby weavers. She makes it very clear that this attitude must change for those who hope to become professionals.

The book outlines how to choose a product that will appeal to a wide range of buyers, how to market your product, how to set up a studio, the most efficient tools, and the most effective work methods to use.

Although she uses a fly-shuttle loom because it has proven to be the fastest efficient hand loom, the directions she gives can be applied to other types of looms. However she dispels many of the myths about the fly-shuttle and presents an excellent case in favor of its use.

The color theory section is the best I have read. It is unfortunate that the publisher lacked the judgment to print this chapter in color.

It is probably necessary to have woven thousands of yards of cloth in many different fibres and yarns in order to remember to include such a myriad of small helpful bits of information.

This book presents far more than most books that will help any weaver, and it is certainly necessary to anyone who hopes to become a professional handweaver.

—Bette Hochberg

SHORT TAKES

A treasure of information for spinners can be found in *A Hundred and One Questions for Spinners*, a new booklet from Straw Into Gold. This is not a how-to book as such (there are plenty of those on the market). It's a compendium of questions asked over the years by students and customers at Straw Into Gold. Answers are provided by Alden Amos, Susan Druding, Bette Hochberg and Lori Hanson, quite an authoritative group! The questions relate basically to materials, equipment and technique, and answers are thorough, clear and readable. Write Straw Into Gold, P.O. Box 2904, Oakland, CA 94618 for price and ordering information.

You wouldn't ordinarily expect to find a book with the unlikely title, *The Incredible Secret Money Machine*, reviewed in our pages. But author Don Lancaster has a weaving wife, Bee, and the problems of the craftsman starting his own business are well-covered in the pages of this fresh, funny, inspiring little book. There's a lot of solid information plus a solid commitment to the "small is beautiful" philosophy in this little volume subtitled "a how-to cookbook for setting up your own computer, craft, or technical business". From Howard W. Sams & Co., 4300 West 62nd Street, Indianapolis, IN 46268. \$5.95, paper.

The Basic Book of Twining is in the tradition of other books by Esther Warner Dendel—it has clearly presented basic skills and plenty of excel-



Finally, an inexpensive Kitset Castle Wheel from New Zealand...the "WEE PEGGY."

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Dorothy Miller of Aptos, California, picked up indigo seeds (*Polygonum tinctorium*) in Japan a few years ago, and has spent the last four summers growing the plant and experimenting with it as a dyestuff. Many requests for seeds and information prompted her to write and publish a little booklet, *Indigo: From Seed to Dye*, complete with a packet of seeds and growing tips. The

In our last issue we published a glowing review of Rachel Brown's new book, *The Weaving, Spinning and Dyeing Book*. One of our readers, a superb spinner, took issue with our estimation of the spinning section, and was able to pinpoint a great many inaccuracies; so while we still feel it's a beautiful book and would be especially useful for new weavers, we pass along that the spinning section must be taken with a grain of salt.

interweave 55

product news

In addition to several fine traditional wheels, Steven J. Gray is now manufacturing the contemporary **Wind Mountain Spinner**. The wheel is constructed mainly of oil-finished oak and was designed to be portable (folds to 23" x 24" x 10"), and versatile (three interchangeable flyer heads—including a spike), with smooth action (ball bearing drive wheel, double-action treadle). For a brochure describing his complete line of wheels and accessories, write Steven at P.O. Box 1884, 514 E. Davis, Bozeman, Montana 59715.

Michigan weavers take note - **Delphi Weaving and Spinning Supplies'** wide selection of equipment and yarns (including the latest from Berocco, Tahki, Henry's Attic, and Harrisville, among others) can be found at the new Troy store, 1073 E. Long Lake Road, as well as the original East Lansing location. Weavers in other parts of the country can order by mail. For a free catalog, write to Delphi, 2224 E. Michigan Avenue, Lansing, Michigan 48912.

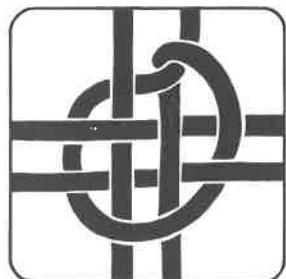
Marian Clayden, one of the leaders in the current surface design movement, is offering slide kits showing her explorations into many dyeing techniques during the past ten years. The first two kits (Surface Dyeing, and Dyed and Manipulated Fiber) focus on her work, while the third (Beginner's Resist Dyeing) gives step-by-step instructions for five techniques. For information, write to Marian Clayden Slide Kits, 16231 Deodar Lane, Los Gatos, California 95030.

Thought Products Co. is now marketing the latest in a line of innovative weaving equipment—the **Cassandra I**, a "counter-shed" loom which combines elements of jack, counter-marche, and counter-balanced design. For the dealer nearest you, check with Thought Products, R.D. 2, Somerset, Pennsylvania 15501.

The **Wool Stapler** grew out of the owner's forays in search of unique wool for her own spinning. She invites customers to suggest wools they would like her to stock and then does her best to locate sources. Summer's stock included California Targhee, Scottish Blackface from Vermont, and a variety of interesting British fleeces which may not be stocked now due to severe price increases. At last report, shipments of Shetland, Chevoit, Tunis, and mohair were due. For current stock status, write The Wool Stapler, P.O. Box 164, Willits, California 95490.

...And spinners, while you're checking fleece availability, you might also want to drop a note to **Great Northern Wools**, High Meadows, Chelsea, Vermont 05038. Co-owner Delinda Syme claims that all of her fleeces can be spun without carding; if the samples we've seen were representative, that's undoubtedly true.

Looking for custom-spun, custom-dyed yarns at reasonable prices? Whatever your medium—weaving, basketry, felting—Susan Spalding of **Osage Handspun** can probably spin and dye a yarn to suit. For a large and inspirational sample packet, send \$1.00 (refundable) to Osage Handspun Yarn, P.O. Box 2903, Oakland, California 94618. Bet you can't buy just one...



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NATURAL DYE MORDANTS — best prices. Retail and wholesale. 4 oz., 1 lb., & larger. **Designs by Parsons**, 8402 E. Mangun Rd., Mesa AZ 85207.

MADDER SEEDS: Baker's Dozen plus instructions for five-dollar donation to **Blessing Historical Foundation**, Blessing, TX 77419.

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classified ads

THE WEAVING SHOP, at 1708 Walnut St., Boulder, CO 80302, can save you up to \$100. If you order any loom from Leclerc, Herald, or Schacht through our shop, we will pay the shipping costs (continental U.S. only). The price of the loom is established by the manufacturer and this is all that you will pay. For loom catalogs and more information please send \$.50 to The Weaving Shop. (We are also the Colorado agent for the Ahrens/Violette, dobbie loom.) Sorry, we do not mail order yarn.

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Literature

**WOODLAND INDIAN FINGERWEAVING TECH-
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TEXTILE ARTISTS' NEWSLETTER, a quarterly
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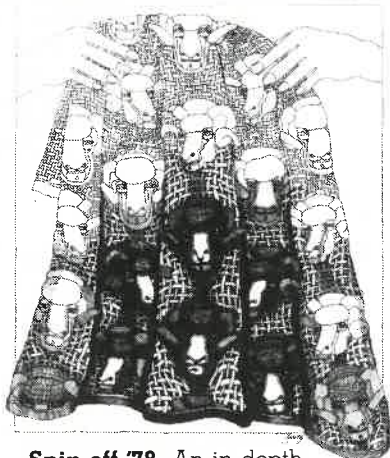
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Spin off '78. An in-depth annual for spinners or anyone interested in fibers. This year's edition has articles on flax by

Eliza Leadbeater; designing yarn by Judith Noble; cotton by Harry Linder; spinning with a purpose by Beverley Horne; teaching spinning by Sally Posner; how wheels work by Col. Ronin; historical spinning wheels by David Pennington; tailoring handspuns by Paula Simmons; and much more.

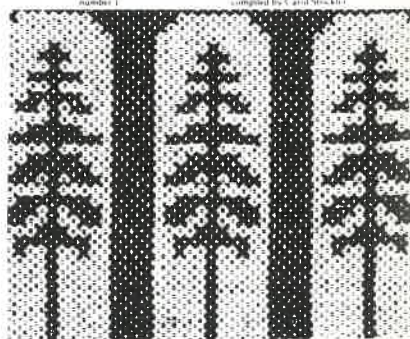
Due off the press in October 1978, this volume will remain in print for a year. **\$5.50 ppd.**

A Portfolio of American Coverlets. Carol Strickler has spent years researching and documenting American coverlets. This portfolio is first of a series to share her knowledge with others. Twenty-

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