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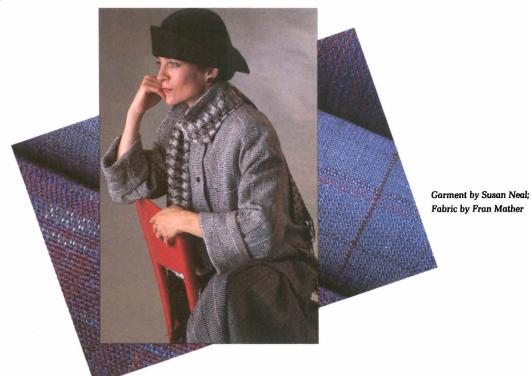
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On the cover: A collection of linens by Frances Timbers, E. Del Zoppo, Linda Heinrich, Mary Elva Congleton Erf, and Jo Goodrich.

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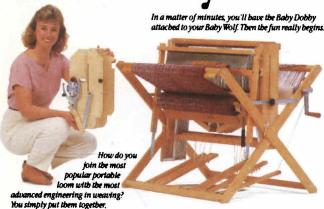
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Editor's Page

A lot is going on here at Interweave Press these days, and I hope that this update will give you an idea of what's coming up and how you can be a part of it.

A new book. A special project that we're annoucing in this issue is an opportunity for everyone to participate. It's an eight-shaft pattern book along the lines of Marguerite Davison's A Handweaver's Pattern Book, except that it'll be for eight shafts instead of four. The key to this weave-idea book is loads and loads of samples, and as much as we'd like to weave the samples ourselves, we just can't do it all. That's why we're asking for your help. It'll be fun and will offer a small (teeny, tiny) amount of fame and fortune (for more, see page 28 for our announcement).

Interweave Forum. We're holding another Forum this May 4–7 focusing on Designer Fabrics for Fashion and Interiors. The outstanding staff includes Jean Williams Cacicedo, Fran Mather, Susan Neal, and Cynthia Schira. If you want to develop your fabric design sensitivities, this conference should be your first step. See the inside front cover for details.

Thank you. The linen examples in this issue are outstanding, and it's because so many of you submitted such impressive weaving. I was particularly heartened to see not only impeccable mastery of technique, but functional household linen fabrics that were so sensitively designed. Bravo! Thanks to everyone who sent work to consider. Even if your submission didn't find its way into the magazine, having the opportunity to review your work was a significant part of shaping this issue. Thanks.

Coming up. The next issue (May/June/July) of HANDWOVEN will feature weaving with children. I don't know when I've been so impatient to start work on a issue, but I've been "champing at the bit" for weeks now. Interestingly, I've never had so many submissions from readers as I've had for this one. Teachers, parents, kids have written both funny and touching stories, shared projects and ideas. It's all turning out to be a great big Show and Tell; it's bound to be fun and informative, and I hope it will convey the wonderful warm feelings I've had from reading your letters. Also coming up: summery tops and simple cotton projects for weaving this summer.

Call for submissions. We'll be focusing on two main topics in the September/October Handwoven. Our technique section will feature weft-faced weaving: rugs, pillows, runners, placemats—all with an ethnic look. If you've done an outstanding weft-faced project recently, send me a color snapshot *immediately* for consideration. Also, our gallery in this issue will feature spinning for weaving. Again—ASAP—send a color snapshot along with a story about your piece for us to consider.

The November/December issue will feature weaves that have either undulating or deflected warps or wefts or both. If you have a fabric of this sort, or a project you've made from this type of fabric, send a swatch and photograph by April 17th.

We're already working on the March/April 1990 issue, which will be an historical overview of weaving in the United States between 1920 and 1970. We're interviewing some "old timers" to get an idea of what weaving was like back then. If you know of weavers who were important teachers, weavers, publishers, or authors, please drop us a line about this person and what kind of work he/she did. Please list your complete address and phone number as well as the address and phone number of your candidate. We hope to interview as many people as possible so that we can pull together a weaving history of this time. Also in this issue, we'll be developing projects around fabrics from this period. We'd like your input on swatch collections that might exist in museums, schools or private collections around the country as well as specific project proposals based on these historical textiles.

Update. All the entries are in for our Super Simple Tops contest. Thanks to all who entered. As always, it's so interesting to see what people are weaving around the country. We'll be finishing up the judging in the next week or so, in time to announce the winners in the next Handwoven. The winners will be featured in *Design Collection #13* which should go to press by the end of April for a June release.

Whew! That's all for now—keep your ideas, letters, projects coming—it keeps us going.

Happy spring.

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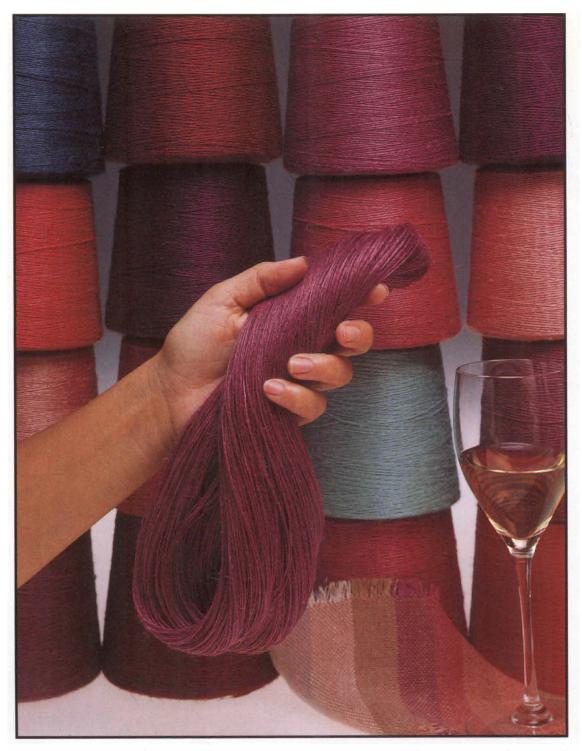
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Letters

When is a rut a rut?

Last month I was talking with a friend about a coat she was going to weave. She said she had picked out some colors she really liked, but was afraid that they might be a little too bold. I immediately imagined something in reds and purples, maybe with a streak of clear blue or bright red. It was only later in conversation that she mentioned the actual colors: tur-

quoise, greens, and blues. I mentally shook my first image away and decided that the blues and greens would look fine—refreshing, in fact. Something different from red-purple-blue. How, I wondered briefly, did I get into a colorrut?

Later that month I got the November/December issue of HANDWOVEN on, appropriately enough, color. As I started turning the pages I realized with some

surprise that here they were again, page after page of the same colors. I took out my color wheel and almost everything fell in the violet-to-red or violet-to-blue side. HANDWOVEN is in a color-rut, too! (You are also in a cover-rut, having the last three covers with close-ups of darkish fabrics with one accent—buttons favored . . . but that is another letter.)

Then I went to a weaving sale. By now I was very aware of purple colors, and there they were again. What happened to yellows, greens, oranges, and bluegreens? The stores around us were not particularly emphasizing red-blue based colors.

How did I, at least, get into a color-rut? In fact, red-blue colors are not really "my" colors. They are not colors I particularly wear, and I certainly don't decorate with them. Why have I been increasingly weaving with them? I think I started weaving red-blues just because they weren't my colors. They were something different for me, and I do like the way they go together. They can be dramatic when dark, attractive in lighter shades. Somewhere along the line as I kept using them, my "something different" became more and more usual and I got into my color-

How do you get out of a color-rut once you realize you are in one? That's easyand fun. I needed to make some scarves, and there is no better way to use new colors than by making a handful of scarves with different wefts. I went to the yarn store determined to buy something different, and I sure had a good time. I refused to look at anything violet-red based and saw a whole new set of colors. When I started weaving, even my family said, "You don't use colors like that"-"that" being black yarn with metallic fringes. It's not much of a color, but certainly different for me! I know many of us make fun of our "earth-tone" weaving stage and then comment about the "southwestern-color" era. Are the late 80s going to be remarked upon as that time "when everyone used those horrible plums and violets and magentas"? Will the pieces be as dated as macramé plant hangers? I hope not; they are good, dramatic colors. However, a steady dose of drama can wear thin. Maybe our pieces would not be so dated if we normally used a wider palette of colors. It's worth a try, and certainly more interesting. (See Debbie's ar-



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ticle on page 34 for how to break out of a rut)

Debbie Allen, Edmond, Oklahoma

Well, I hope you found the January/February '89 cover and our current cover photo refreshing changes. You're right, of course, that there was a preponderance of red-blue-magenta color schemes in the November/December issue. I spent some time feeling bad about this, but then I realized that this influence in the magazine was indeed a reflection of the colors handweavers around the country are currently using. Now, whether reflecting this color mood in editorial coverage is good or bad, is, I suppose, not for me to judge. Are weavers in a rut, or are they just going through a color phase? After all, Van Gogh had his early dark period; Picasso went through his blue period. We are influenced by our moods and surroundings. For instance, home interiors went through a gold-brown-beige era in the late 70s. Is it a coincidence that during this time weavers were weaving naturals, browns, and golds? Currently, home interiors are showing cool colors (gray, plum, mauve), and these cool colors are what we're seeing in handwovens, too. Do we choose colors because we are in a rut or because they are appropriate for the project at hand? Because we enjoy working with them or because we want to challenge our color senses? Readers, what do you think?

Re: January/February '89 Editorial

Reading your Editor's Page, I was reminded of an article I read some years ago about a man you would have liked. When his farm was struck by hail and he had every reason to believe his crop had been lost, he had his children gather the hailstones to make ice cream.

Manuela Kaulitz, Louisville, Kentucky

Thanks, but more laughs, please

I was thinking to not renew my subscription to HANDWOVEN until your September/October'88 issue, which featured the interview with Peter Collingwood which I enjoyed so much. As a person who is trying to make a living from weaving, and exploring it full time, I appreciated Collingwood's frankness about how he wanted to weave in spite of the economic "realities" that spoke against it.

On another subject, won't you please include at least one playful item in each of your issues? Sometimes I think you take

weaving and femininity just a little too seriously. Personally, I like things rough with a lot of texture. And I like humor in textiles.

Judith Blank, Bar Harbor, Maine

Readers, any jokes, cartoons, light-hearted weaving out there? —ed.

Show and Tell

You've written on the editorial page that it pleases you most to hear that someone is inspired by something printed in HANDWOVEN. I have often been inspired by your projects, and I have learned a lot about weaving from your magazine. I never quite follow the directions, but recently I was inspired by a sweater project (September/October '86, page 68). I followed the weaving instructions exactly, but I made a jacket instead of a sweater.

Bep Kamphuis, Heusden, Netherlands

Bep shares one of her original designs with us in this issue on page 46. —ed.



Correct term, please

Re: page 50 in the March/April '88 issue of HANDWOVEN, "January Rug", the technique described is "clasped weft", not "meet and separate", according to Peter Collingwood's *The Techniques of Rug Weaving*. Sheds change between shots in meet and separate, and fabric wefts do not interlock or loop around one another.

Johanna Erickson, Watertown, Massachusetts

If you look again in Collingwood, you'll note that clasped weft is a subset of meet and separate; it is therefore not incorrect to call this technique meet and separate. However, clasped weft in this instance is more descriptive and should be the preferred term. —ed.

Our Readers Ask

I'm enclosing a photograph of a tool that a friend picked up for me from an antique dealer in Maine. What is it? A fleece comb? A tapestry beater? Is it even a weaving tool?

Marina O'Connor, East Greenwich, Rhode Island



I recently acquired a two-shaft loom with a sectional warp beam, and I'd like to know more about it. The metal plate on the front reads, "Union Loom Works, Union Loom No. 36, Boonville, N.Y." Can you tell me anything about this loom?

Donna Richardson, Gresham, Oregon

The Union Loom was originally manufactured by a yarn company called The Carlcraft Company. In 1984 this company was sold to Oriental Rug Company, Lima, Ohio 45802. Oriental Rug Company has parts for this loom. For a brief history, check page 90 of Rag Rug Handbook, by Janet Meany and Paula Pfaff. This book, recently published by Dos Tejedoras, includes a section on rug looms, with interesting histories on many of the early loom companies (write Dos Tejedoras Fiber Arts Publications, 757 Raymond Avenue, Saint Paul, Minnesota 55224, for information about this book). —ed.

I am interested in the specific weave structures and dyes that Flemish weavers of the fourteenth century, living in England, and British weavers, also of the fourteenth century, used and produced. Is there a book, monograph, or article that gives such information?

Janay Y. Downing, Denver, Colorado

Corrections

January/February '89, page 84. Under Maple Sugar Jacket, the page number which refers to the page where the project is pictured should read page 92, not page 90. The author of the article "Liturgical Weaving" on page 50 is Terrie Rodman, not Terry Rodman.



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Her Days

With an 18-month-old, Molly, and another baby on the way, Pat keeps busy doing Mom things much of the day. But Pat is devoted to her craft, and she makes time to weave every day, usually during Molly's naps. Pat's husband, Eric, an architect, shares her interest and enthusiasm in weaving. He offers design and color advice and Pat appreciates the perspective that he brings to her work. At times, his insights are just what's needed to bring a piece to its conclusion. It was Eric who gave Pat a loom as a wedding gift. (He got a canoe.) Pat is a member of the Weavers Guild of Boston, and she belongs to a weaving study group where weavers exchange ideas and critique each others' work.

Her Weaving

For nine years Pat worked as an interior designer. Her love of pattern inspired her to study Overshot. A few years ago she received a grant from Massachusetts Arts to research fabrics woven in New England during the 18th and 19th centuries. For most of that year, Pat could be found tucked away in museum archives surrounded by old coverlets. Now she applies that knowledge to her work. Using an ever changing palette of colors

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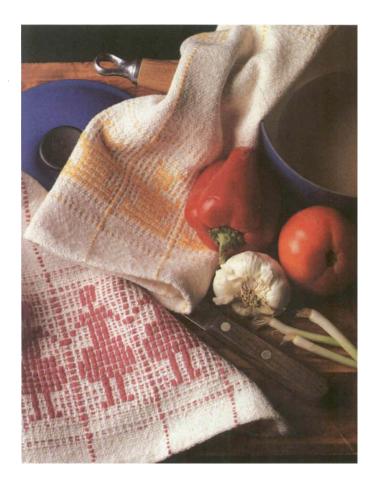
Idea Notebook Broadsloths with figure

Breadcloths with figures

The more shafts you have, the more fun you can have designing and weaving figures, as Susan E.J. White discovered when she designed the figures for these breadcloths. Susan began by drawing her designs on graph paper and then seeing if she had enough shafts to weave what she'd drawn. Through experimentation and sampling she came up with the delightful motifs shown here. The weave is summer and winter but with only one tiedown thread used for an effect that's sometimes called "treadling half-dukagang fashion". Extending the center portion of the breadcloths makes them into wonderful towels, she notes.

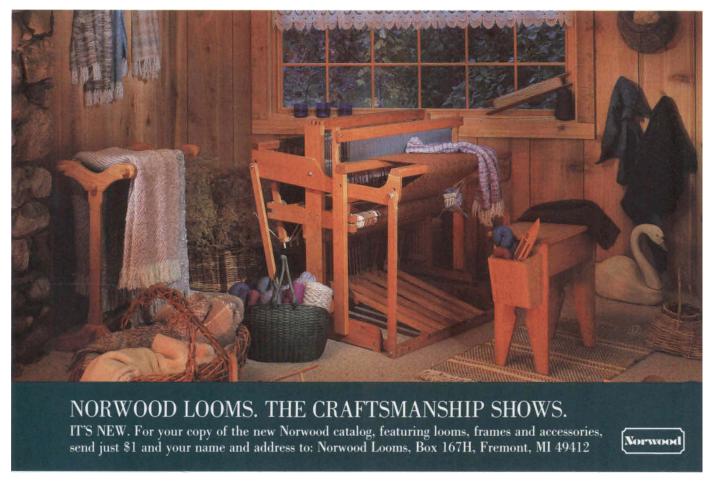
Use Susan's figures here, or design your own using a profile draft where each square equals one threading block (for example, 1,3,2,3 = block A; 1,4,2,4 = Block B; and so on).

Please see the Instruction Supplement for complete weaving details.





March/April 1989 HANDWOVEN 11







Books

Handwoven Clothing Felted to Wear

Anita Luvera Mayer Shuttle Craft Books, P.O. Box 550, Coupeville, WA 98239. 100 pages, wire bound. Line drawings, color photos. \$16.95.

"For the women of yesterday and today, whose hearts nurture and love and whose hands pass on the traditions of a people", this is the dedication in Anita Mayer's book on felted clothing. This book is a very personal one; it is sprinkled with philosophical gems and packed with lots of information and personal experience. If you need a pep talk or just some



Sweden

practical hints to get you weaving and keep you weaving, the introduction alone is worth the price of the book. Suggestions like getting the next warp ready before you finish the current project and practical and creative ways to treat sampling are just two of the many helpful ideas contained in these pages.

A short history of felting opens the book, illustrating the traditional uses of felt in several countries.

Anita's approach to clothing design is modular. Designs make use of narrow widths of fabric which she feels are less overwhelming and allow more design freedom. The felted fabric used is first woven and then fulled or felted to the desired density. The technical aspects of the felting process are covered thoroughly, noting which steps are not reversible, approximate shrinkage, and suggesting methods for recording procedures.

The chapters on finishing and surface embellishment include helpful illustrations and clear instructions.

Each clothing design in the portfolio is shown in a photograph modelled by Anita (she makes the clothing for herself). Each garment has a personal story; very often some aspect of the original design was changed during the process. The author encourages flexibility and a positive approach to design, she entreats her readers to make it work for them. There are no rules; if it works for you it's right. Portfolio details include information on the type of yarn used, weave structure, felting processes, garment construction, finishing and embellishment for each design. The importance of sampling and making muslin patterns is pointed out several times throughout the book.

Reading this book is like having a personal visit with Anita Mayer; she gives you a place to start and encourages you to make a unique statement through your weaving. She tells you the problems she encountered and how she solved them. And most importantly she believes we can and will "weave and wear many rainbows".

-Ronnine Bohannan

Designer Diagonals: A Portfolio of Patterns for Bias Clothing

Virginia West

Virginia West, 2809 Grasty Rd, RFD #7, Baltimore, Maryland 21208. 44 pages, paper bound, many line drawings. \$12 ppd.

Hooray! a book that helps hand-weavers take a look at new ways to use their fabric.

Virginia West started *Designer Diagonals* with the same philosophy she espoused in her first book—*Weaver's Wearables*—to design with as little waste and as few cuts as possible. The first patterns in this book adhere to this philosophy but move away from it as the designs become more complex.

This portfolio has some very interesting designs, but be sure you follow the recommendation to make a muslin pattern as Ms. West suggests. Some of the measurements given, namely the waist openings, seem to be somewhat small. There are some nice neckline treatments and suggestions for piecing narrow fab-

rics. Designs move from bias to circular and there are some twill structures given at the end of the book that give a diagonal look even if the fabric is not used on the bias

The illustrations are clear and informative. I would, however, have liked to see some photographs of the bias clothing.

Designer Diagonals is a useful book for anyone wanting to try using handwoven fabric on the bias.

—Ronnine Bohannan

BOOK MENTIONS

Loom Controlled Alternate Checkerboard Patterns by Betty Gaudy. Gaudy Enterprises, 998 Rio Verde East, Cottonwood, AZ 86326. Black and white photos, spiral-bound paperback, 191 pages, \$25.00 plus \$2.50 shipping.

Subtitled "Specialized Study and Indepth Research for the Certificate of Excellence in Handweaving, May 1980," this is a self-published book of checkerboard arrangements of basket, log cabin, rep, huck, summer and winter, crackle, monk's belt, laces, M's and O's, overshot, and other weaves.

Claire Shaeffer's Sewing S.O.S. Open Chain Publishing, P.O. Box 2634, Menlo Park, CA 94026. Line drawings, 120 pages, paperback, \$12.00 postpaid.

Claire Shaeffer's "Sewing S.O.S." column in Sew News has been so popular that the editors decided to compile the best of the column into a book. Answers to readers' questions are arranged alphabetically by subject. The reader is encouraged to take notes or clip photocopies of other useful tips in the wide margins and add to the list of suppliers or to the bibliography, making this book the skeleton for the reader's personal sewing reference library. In addition to the expected topics like Alterations and Interfacing, there are a few surprise topics like Business and Costumes. The alphabetical arrangement and extensive index make this an easy book to use. *

Serendipitous Design

by Barbara Liebler

HE WAS DYEING fleece brown, or so he thought; but the dye separated into its primary colors and dyed different parts of each lock blue, burgundy or camel. It was not what he was trying to do at all, so did he throw it away? No, he started spinning beautiful rainbow-colored yarn.

A 3M company employee was doing research to find a super strong glue for the company to market. Along the way, he found a very weak glue, barely strong enough to hold one piece of paper to another. With a little tug, the paper came apart with no hint of residue, yet the same paper would stick again and again to another surface. This wasn't the glue he was looking for, so was it trash can material? No, it was Post-it™ Notes, one of the hottest selling new inventions of recent history.

These people had serendipity, the faculty of happening upon fortunate discoveries when not in search of them. Serendipity is not totally free, though. You have to recognize that you have made a discovery and recognize how you can use it. When the world hands you lemons, you must recognize that you can make lemonade.

Good craft is actually a conversation between the materials and the maker. If you try to make clothing out of tow linen, you're not listening to your materials. If you try to use linen to make a soft flowing evening gown, you're not involved in a conversation, you're involved in a dictatorship. When you play the dictatorial parent you will get rebellious materials—they may not run away from home but they will turn belligerent and uncooperative. Better to expect your material to be a

Exercises in Flexible Thinking

- 1. Your inexperienced helper didn't get smooth roll-on of the warp beam paper, so it is crinkled up on the left but smooth on the right. So your finished runner comes out in a C-shape. What do you do?
- 2. You planned a dark color scheme on some mill-end wool yarns, but when you dyed the first color it came out heathery and pale (no doubt a synthetic/wool mix). What do you do?
- 3. Your west yarn is so overspun, it won't straighten out and lie calmly in the shed. What do you do?

good kid who doesn't always think like you do, but has a lot of good ideas and good intentions anyway. Better to be on the watch for serendipity.

Sometimes weavers find this harder than craftsmen in more fluid media. Weaving is a very planned activity. Once the warp is on the loom, it's hard to change. But sometimes surprising things happen in spite of the plan; to recognize and take advantage of the happy accidents is the trick.

So when you run out of preshrunk weft and, in a hurry, use some unwashed cotton to finish the piece, what will you do when you wash the finished piece and find one end 2" narrower than the rest of the fabric? Will you rant and rave and throw it in the trash can? Or will you recognize it as a great new shaping idea for clothing, and start using preshrunk weft at the bustline and unwashed cotton at the waistline so your blouse takes on a shape in the final washing?

When you have a warp ready to go but no weft yarn and no money, just a bag full of thrums, what will you do? Give up weaving and go vacuum the living room? Or tie those thrums together to make a fabric where the color changes in the weft and the texture of the knots is the main design interest?

Being open to serendipity is primarily a matter of attitude. If you keep your mind flexible, you can see a challenge where you used to see a frustration. You can see a new discovery where you used to see a roadblock along your intended route. Try these exercises in flexible thinking, looking for a way to turn each frustration into a great discovery. They are all drawn from real life experiences of me or my friends. After you have figured out an answer for yourself, check the answers below for what we did. Then keep that flexible thinking skill with you when you run into frustrations. You'll make the happy discovery that there are fewer disasters than you thought, and there are a lot more opportunities for growth. �

Barbara Liebler is assistant editor to HAND-WOVEN magazine. She lives in Ft. Collins, Colorado.

ANSWERS:

2. Recognize the beauty of your pastel color scheme as you use the dyes you had planned to used.

3. Make collapse fabric (see Spin Off magazine, Vol. XI, no. I, the surface of the fabric for a fake the surface of the fabric for a fake lambswool look.

1. Start making C-shaped shawls, advertising that they fit the body



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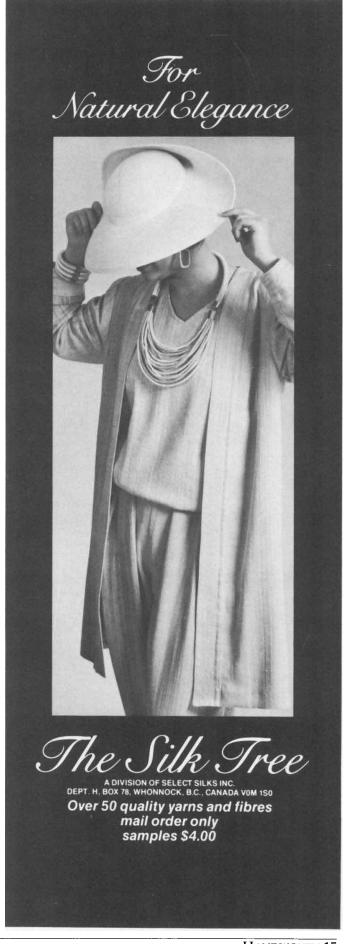
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Linen defines these crisp-looking fabrics.

SWATCH COLLECTION #19

by Sharon Alderman

Because the theme of this issue of HANDWOVEN is linen, every fabric in this collection is woven of linen. I chose natural, unbleached linen and contrasted this with half-bleached and deep blue for crisp-looking fabrics, a color scheme in keeping with this fiber's properties.

The first fabric is woven of halfbleached linen. The fiber shows off the Bronson lace pattern in the cloth. The cloth is absolutely plain except for the checkerboard of the lace structure which develops nicely in such crisp thread. I see this fabric used in a loose-fitting top cut like an over-sized T-shirt.

The second fabric is jacket weight. It combines a plain weave and 2/2 basket weave in a checkerboard. The natural linen warp is crossed by a deep blue weft. Where the cloth is plain weave the colors mix in tiny dots; where the basket weave appears, the dots of color are larger. This structure requires eight shafts. A four-shaft version may be woven with stripes of basket weave and plain weave, either warp stripes or weft stripes.

The third fabric is the right weight for a shirt jacket or a long skirt with soft pleats. The check combines half-bleached and dark blue linen in the warp and natural and dark blue in the weft. The plain weave structure makes a marvelous cloth. It is smooth and crisp just like its colors.

The fourth fabric is also jacket weight and uses the square motif again. This time squares made up of horizontal lines are woven into a vertically-striped ground. The cloth is smooth and substantial. I see it made into an unconstructed jacket.

You will have the best results with linen if you keep a few pointers in mind. Be careful as you measure and beam your warp: tension inequalities will persist throughout the warp; a little extra care during beaming pays off. Linen is not elastic. If there are two areas that will have different take-up, beaming those two areas separately is essential. Linen is stronger when damp: if you find that you are having trouble maintaining selvedges in a singles yarn, mist the warp lightly with water to strengthen it. (Be sure that it is dry before it is wound onto the cloth beam to avoid mildew.) Snarly bobbins can be tamed by spritzing them with a little water before putting them into the shuttle. Manipulate the cloth well as you wash it to remove reed marks; iron it damp.

The surface of a freshly laundered linen fabric delights my fingers. It is cool, crisp, smooth and fresh. Ironing linen—turning it from a damp, rumpled fabric to a smooth, polished one—is a pleasure. I know of few other things I can do that create such satisfying order in so short a time. Chances are you will come to love linen,

too. 🍫

Sharon Alderman is a contributing editor to HANDWOVEN. She lives and works in Salt Lake City, Utah.

Opposite: Swatch Collection #19 by Sharon Alderman. Left to right: Fabric #4—Squares of Pinstripes, Fabric #1—Bronson Lace, Fabric #2—Plain and Basket Weave, Fabric #3—Plain Weave Check. Please see the Instruction Supplement for further details about these fabrics. YARN COURTESY GLIMAKRA LOOMS 'N YARNS.

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HOME BREW



Sample cards from top to bottom: 1. Left to right, linen yarns/fiber before dyeing—unbleached line flax, 5/2 unbleached rug warp, 20/2 half-bleached line, 8/1 bleached tow, 20/2 bleached line. The yarn/fibers in the dyed samples appear in this same order though not all yarns were dyed in each dyepot. 2. Onion skin dye with alum mordant. 3. Onion skin dye with alum and tannin mordant. 4. Onion skin dye with alum and lime mordant. 5. Brazilwood dye with alum mordant. 6. Brazilwood dye with alum and lime mordant.

Linen Dyes

by Anne Bliss

105th: YELLOW ON COTTON AND LINEN—HOT

Take two pounds of the leaves or peelings of onions that are clean and clear from dirt; put them in fair water, boil well, then add half a pound of allum, fun your goods one hour, and you will have a good colour. —Elija Bemis

LIJAH BEMIS' 1806 publication ்of *Dyer's Companion* not only gave 19th-century American dyers access to workable dye methods and recipes, but also provides valuable insights into techniques that we can use today at home or in the studio. The recipe above is one of several Bemis gave for dyeing cotton and linen. He, along with J. and R. Bronson, who wrote *The Domestic* Manufacturer's Assistant and Family Directory in the Arts of Weaving published in 1817, spelled out simple ways to dye cellulose fibers, even though dyeing recipes for wool predominated because wool was the most popular fiber in early American life.

In researching flax/linen dyeing, I found that many recently published natural dye books provide only a cursory treatment of linen dyes or simply state that linen is difficult to dye. With few exceptions, linen has been neglected. In addition, readers have been told to use synthetic dyes formulated for flax/linen or cellulose fibers. As a result, we have really been discouraged from dyeing flax and linen with natural dyes.

Our notion that natural dyes aren't pretty when coloring flax or linen is false. The notion that naturally dyed linen is dull or lacks

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luster is also false. What is true is that you have to accommodate the special qualities of flax or linen and work with them to produce good color on the fiber. Early dyers recognized some special qualities of cellulose fibers including flax (and linen thread or yarn which is made from flax): cellulose fibers are strong, they will absorb water, they don't accept dyes in quite the same ways protein fibers do, cellulose prefers an alkaline bath while protein fibers dye best in a slightly acidic bath, the fibers often need manipulation in the dye baths (unlike wool, which felts under those conditions), and light and airing often help fix the color to cotton or linen.

In the 16th century, Gioanventura Rosetti (*Plictho*) published a number of recipes for linen dyes. In each case he advocated "always working by hand so that [the fiber] takes the true shade." Rosetti also used a couple of interesting mor-

dant or additive techniques. He advocated putting the linen through a bath of blackberry leaves (Rubus fruticosus) prior to dyeing. Since these leaves contain tannin, we find that Rosetti really applied a tannic acid mordant to his linen. In an alternate method using Brazilwood, Rosetti worked the linen by hand either in a dye plus alum bath or in a bath of dye, lime, and alum. This latter combination (lime plus alum) varies just a little from ancient Egyptian limewater mordant baths in which the dyers "stirred" the linen (i.e., worked it in the bath).

My curiosity piqued by the limewater influence, I turned to my old chemistry book to discover that lime (calcium hydroxide, Ca(OH)₂) provokes an alkaline reaction in the bath, exactly what flax/linen, cotton, and other cellulose fibers need. As I pursued the subject, I found that in medieval Europe, weld (*Reseda luteola*) was used to produce a bright yellow on lots of natural

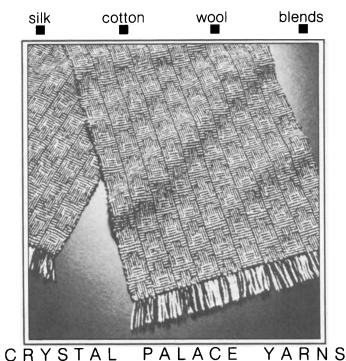
fibers when lime was added to the dyebath. And then I remembered that tannin plus lime is used by contemporary Africans in the indigo plant's fermentation process and lime is used again in the vat reduction process.

With all this information rattling around in my head and no definite measures such as how much lime or tannin to use, I dug out some linen and experimented a little. I used two unscoured samples (flax line and 5/2 rug warp), two bleached and scoured samples (10/2, 8/1 white), and one "natural" sample which was either partially bleached or of a light tan natural color (20/2). The fibers were tied, threads were skeined and loosely tied; then all fibers and threads were soaked for one hour in hot water. If the fibers or threads are oily or soiled, you will need to scour them by simmering them one hour in 4 gallons water plus 1 cup soap flakes per pound of dry fiber/thread. In any

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case, the fiber should be well-wetted prior to dyeing and should enter the dyebath in a damp state. The ratios of fiber to dyestuff I used were flax/linen to brazilwood 1:4, and flax/linen to onion skins 1:2.

Two dyebaths were brewed; in 4 gal. water per 1 lb. dyestuff, brazilwood and onion skins were each simmered for one hour before straining to remove the dyestuff. Each bath was then divided into thirds, and mordant was added to each: Bath #1—1 tbsp. alum, Bath #2—1 tbsp. alum + 1/2 tsp. tannin, Bath #3—1 tbsp. alum + 1 tsp. lime. (Tannin and lime were in powder form.) The baths were stirred until mordants were completely dissolved.

Fibers/threads were put into the baths, which were then brought to a simmer with a constant temperature maintained for one hour. The fiber was removed and rinsed three times until no more color bled and dried out of the sun.

In each case, luster was maintained or heightened, particularly

on the flax line. Coloration is good throughout the threads, and the colors are clear and bright. Notice the change to a slightly browner shade when tannin was used (to be expected, as tannin alone gives brown or "drab"). The bleached linen has the brightest, clearest color; the natural and unbleached flax and linen have good color depth, though a darker tone. (This emulates what happens with brown or gray wool dyed with natural dyes compared to white wool dyed with the same dyes—the color remains, but the tone deepens with the colored fiber.)

Flax and its yarn, linen, dye beautifully with at least these two natural dyes. Previous experiments lead me to believe that with a recognition of flax's special properties, any natural dye that gives good color on protein fibers will produce good color on flax as well. Alum alone, alum plus lime, and alum plus tannin all work well as mordants; I have noted no harshening of the

fibers with any of these mordants.

The possibilities are endless, and I have to admit experimentation is in order here. If you're dyeing, please try some flax or linen and see what happens; there's a real paucity of information in the literature—perhaps we can supplement it with a follow-up column. If you want to share small samples for such an article, please send them with instructions or recipe to me c/o Interweave Press. ❖

Anne Bliss is the author of **North American Dye Plants**. She lives in Boulder, Colorado.

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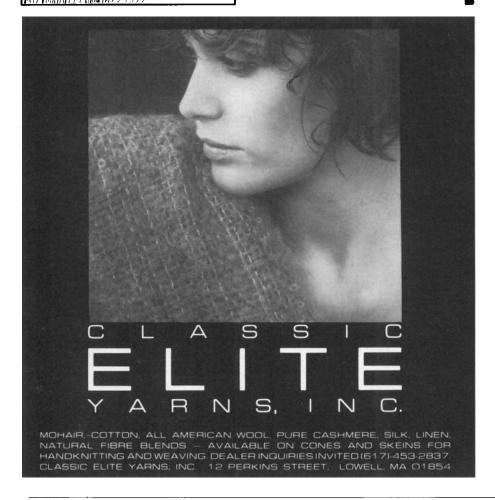
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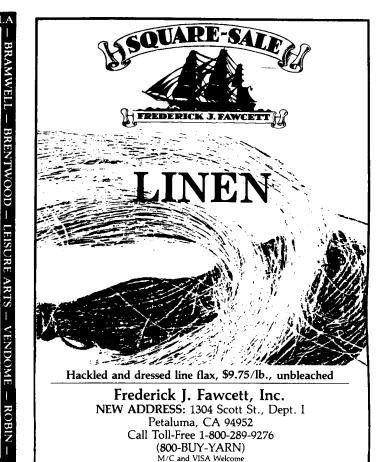
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Weaving and Sewing Linen Garments

by Louise Bradley

Linen HAS A long, long tradition as a premier clothing fabric. From neolithic times people have appreciated its desirable characteristics. It is comfortable to wear because it absorbs moisture readily and it is practical because it is easily laundered. In fact, the fibers are stronger when wet and repeated washing enhances the beauty of the textile. Linen is also elegant and durable. Some 6000-year-old Egyptian cloths are still around.

We modern handweavers and garment makers have neglected linen for a number of reasons. It is relatively expensive. Also, because it is an inelastic fiber (when bent or stretched it does not easily regain an earlier shape), the resulting cloth is prone to wrinkle and is vulnerable to abrasion. But these days wrinkles are acceptable and the abrasion factor can be minimized with forethought. We may also have some unreasonable apprehensions about sewing handwoven linen garments, the result of our collective inexperience. It truly isn't that difficult. It is actually easier to use than many other handwovens because it is, typically, less bulky. Furthermore, the result can be wonderful, a classy classic, one which quietly and eloquently speaks of quality.

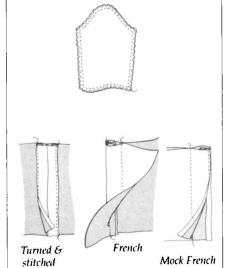
Plan ahead

Sample. Sampling, always a wise idea, is doubly important when planning a project with yarn you rarely use. Aim for a firm but not stiff fabric of just the perfect hand for the garment you have in mind. A jacket textile will need more body; a blouse, less. Continue sam-

pling, changing sett, beat and yarn until you are quite satisfied. Remember to evaluate each sample *after* it has been washed and ironed.

Simple. A simple weave: plain weave, basket weave or a small overall pattern or a leno lace would be good structure choices. Bear in mind that the fiber will neither bloom as much as cotton nor full like wool when washed. Therefore,

Edge protection. Because linen yarns do not felt together, there is some tendency for cut pieces to fray. Use some form of edge protection immediately: a straight stitch to stabilize followed by a zigzag outside that, or a serger overcast.



Seam finishes. Linen, a relatively fine handwoven, allows some seam finishes not often suitable for handwovens.

every thread will remain quite discrete and the weave structure will be obvious.

It is also wise to stick with a very simple garment design letting the beauty of the fiber—lovely, lustrous linen—carry the project. A simple design will also eliminate many fea-

tures vulnerable to abrasion such as intricate folds and sharp creases.

Practical matters

Fabric Finishing. Woven samples and yardage should be thoroughly machine washed in hot water and detergent, then dried without squeezing in order to avoid unnecessary wrinkling. The cloth is best ironed when quite damp with a hot iron. The ironed side will show a high luster. Use a press cloth or iron on the reverse side if that is not your wish. To avoid fiber breakage, do not iron sharp creases into the fabric repeatedly in the same place.

Edge Protection. Because linen yarns do not felt together, there is some tendency for cut pieces to fray. Use some form of edge protection immediately: a straight stitch to stabilize followed by a zigzag stitch outside that, or a serger overcast.

Prefit. Make certain of fit before pressing seams and hems because ironed creases are difficult if not impossible to remove from linen. Stitch or tape together a quick muslin garment before beginning the real garment if you have any doubts about size and shape.

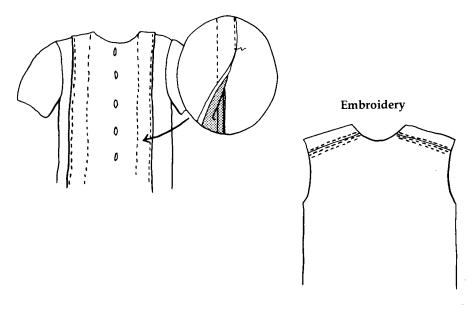
Seam Finishes. Because linen is relatively fine as handwoven textiles go, you can consider some seam finishes that are not often suitable for handwovens. A turned and stitched seam, a French or a mock French seam are possibilities as well as a flat-felled seam. If you are making a linen jacket that is to be fully lined, a simple seam with the original seam protection may be enough. Make a sample and see if it pulls out with a tug.

Finishing suggestions

Ultra-Wide Seam. Consider using an exaggerated flat-felled

seam as a design element as well as a joining method. It would make an appropriately understated focal

Ultra-wide Seam



Left: Consider using an exaggerated flat-felled seam as a design element as well as a joining method. Right: Deriving inspiration from a traditional linen sampler, work lines of simple embroidery along the garment's construction lines.

point on a simple, elegant linen garment

Linen Sampler. The traditional fabric for samplers was linen, a lovely background on which to demonstrate one's embroidery skills. Taken as inspiration and applied in moderation, this idea could be an interesting finishing touch for a linen blouse. Think about a row or two of self color simple embroidery stitched at the shoulder line or following bodice seam lines.

Great building materials make great structures. It is hard to do a bad building in stone. The same is true when a weaver chooses linen, "king of fibers". Your chances of success are great because you start with a wonderful substance. Why not join the long, honorable lineage of linen garment makers? •

Louise Bradley of Boulder, Colorado, is planning to escort a group of spinners and weavers on a craft trip to New Zealand in May, 1989.

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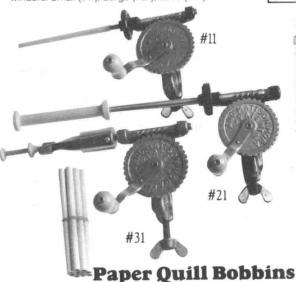
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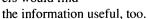
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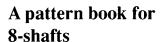
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This question often kicks off ideas and projects at Interweave Press. Mostly it gets asked when someone here in the office wants a resource

or information that doesn't currently exist. And usually the thinking goes that if one of us wants it, chances are that other weavers would find





We bet your copy of Marguerite Davison's, A Hand-weaver's Pattern Book (The Green Book in some circles) is just as worn and well sed as our copies are. We find ourselves going to this book often for inspiration, for weave structure ideas, or for a threading when we want to weave over the weekend, not spend the whole time planning.

All these years we've been putting four of our shafts to good use. We know the exciting weave designs that are possible with eight shafts, but there's just no book that systematically shows eight-shaft patterns, no place to find an eight-shaft threading for that "quick and dirty" project.

Why don't we make such a book?

Hey! Wouldn't it be nice if we put together lots and lots of eight-shaft patterns in a book that other weavers could use, too?



The big question: How?

A good idea, we thought, but how would we ever get such an

ambitious project completed? We want this book now, not in 20 years. And remember, we just have occasional weekend time for weaving. That's how this idea got started.

Help!

We decided that we really couldn't do the whole thing



ourselves, no matter how much fun it would be. But we thought that perhaps with the help of our friends we could get the job done for everyone's benefit.



The Plan: A little help from our friends

We decided we'd ask our HANDWOVEN friends—individuals, groups of weaving buddies, and study groups to contribute

swatches for a book we would produce, and all be able to use. (We would offer due credit, even some fame and monetary incentives, too.) Not only would these participants

make significant contributions to the weaving community as a whole, they'd also have opportunities to explore weave systems they've been wanting to try.

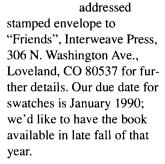
To keep this vast network of weavers abreast of its collective progress, we'll be sending out project newsletters to keep everyone informed—and inspired.

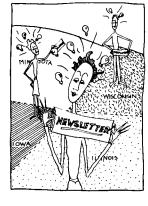
How you can participate

We hope you will! (No swatches, folks, no book.) This is bound to be fun, educational, and, if we all pitch in—truly—we'll all get a lot for a little. (As our moms always said: Many hands make light work.)

We've put together a packet of information about how you (as an individual or group) can join the team. In general, you'll choose a weave structure and threadings you want to explore and weave narrow samples (minimum of 6" to maximum of

10" wide) with a variety of treadling options. We already envision weavers all over the country feverishly exploring weave structure—and having a really good time.





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FORUM

Why Do I Weave?

by Sharon D. Alderman

Sharon Alderman presented this keynote address at the Fiber Forum II conference in Coupeville, Washington, this past September.

A S I PREPARED this address I thought about this conference and why we would be gathered here tonight and what that means. The topics being presented during this conference are varied but they share a common thread; they all have to do with weaving, spinning fibers or color.

We have come together because we are interested in weaving. We are interested in fibers, how they feel, how to make them into yarns, how to use those yarns, how to dye them, what colors to dye them. We are interested in cloth.

As is usual for me, I pursue the ideas that pop into my head as I am weaving and turn them over and over in my mind considering what they mean, what their implications are. "Why will we be gathering in Coupeville?" eventually became "Why do we weave?" and finally, "Why do I weave?"

"Why do I weave?" I have been thinking about that recently. It is a question I have been asked—along with "Are you still weaving?"— many times. I have been asked by people who knew me earlier in my life when I studied and then worked as a chemist. (Does that seem as unlikely a career change to you as it did to them?) Their attitude seemed to be "They have machines to do that, don't they?" Well, they do, and they don't.

As you know.

Why do we weave? I have thought a lot about that. I realize that I can speak only for myself and so that is just what I will do. This is

a very personal address. You will learn a lot about me.

I weave, I say flippantly to some questioners, because I cannot stop. The fact is, I have too many ideas and I cannot wait to see how they will turn out. I have found that the more things I weave, the more



Sharon Alderman in Fairbanks, Alaska, this past January during record cold weather. Her hat and mittens are courtesy Penny Wakefield; her neck gaitor, parka, snow pants, and bunny boots are courtesy Gail March. Photo: Penny Wakefield.

things I think up that I want to weave. It is like opening up an artesian well: once the flow begins, unless something intervenes to stop it, it just goes.

I can recall my mother's explanation about the nature of loving: the more you love, the more love you have to give. When I was a little girl, that puzzled me because everything in my practical experience was limited. Now, in light of what I have learned—partly through weaving—that idea is much, much clearer.

It's true: one of the reasons I weave is because I simply cannot stop. Every warp suggests another

approach, another structure, another yarn, or other colors.

Each warp, if I am awake as I weave, brings to mind the most magical words for a weaver: "What would happen if I ...?" What would happen if I introduced a thread of turquoise here? What would happen if I wove a band of weft-faced twill there? What would happen if I put a teeny, tiny bright and shiny thread right beside that stripe? What would happen if I magnified this pattern and made it into a throw? What would happen if I wove this color and weave effect in small silk threads?

Of all the phrases I can think of that apply to weaving, I suspect "What would happen if . . ." is the most wonderful. That is where innovation comes from. When it pops into my head, I have learned not to question it but to give it a try—or make a note to try it when I have finished the piece at hand and met my deadline. Never dismiss the little voice that makes these suggestions. It's a way to urge on that artesian well.

I weave because I love to create. I am a creator—and I think all of us are—I love to bring something into being that did not exist before. Could anything be more wonderful? Could anything be more fascinating? Could anything be more satisfying? I love the idea that something will be that would not have been except for my being here, my having made it.

I *love* to make things. I love to make *beautiful* things.

In my studio and in my apartment there are two signs that say the same thing: "Beauty is not optional." That is not a trivial notion and it applies to more than just my

FORUM

weaving. It may be that beauty is thought to be a luxury by some but I know it is not; for me, it is a requirement. The fabrics I design must have two properties: they must be functional—they have to do what they are called upon to do—and they must be beautiful. If either property is missing I want nothing to do with making them.

Beauty for me is an essential element of life. I am not the only one who feels that way: the Navajos have a chant which says, in part:

There is beauty before me.
There is beauty behind me.
There is beauty above me.
There is beauty beneath me.
There is beauty all around me.
The final line of this, the Beauty

Way chant, is: In beauty it is finished.

Beauty. What does that mean? It means good proportions, it means a pleasing texture, a pleasing hand. It means colors that sing, whether they be subtle and gentle or riotous and gay. It means a cloth that is in keeping with its intended use.

In our lives it means the same things: it means living a life in balance, it means a life with interesting texture—variety and routine, surprises and patterned living. It means being quietly, subtly lovely sometimes and sometimes soaring into the spotlight. It means a life that works. Beauty is essential.

I weave because it is beautiful. I weave because I love the orderliness of weaving. I love to begin with a mass of threads and bring them together into a whole, a unity. I like taking skeins, cones, balls of yarn and winding them into a warp, beaming it onto my loom, threading a pattern into it and tying it on so that it is full of potential. I like passing the shuttle back and forth exposing the potential of that warp, turning it into reality, a reality I can touch. I love to lift the threads, to make that first shed, and see them act in concert, coming together as a unit, just as I had

planned.

I love to create orderliness in my life. I think I like the quotidian, the everyday, to be orderly because my head is full of so many things that are not routine: new ideas, the implications of new ideas, possibilities.

Sometimes in weaving there are surprises—that's where sampling comes in and I am a *devout* believer in sampling—but surprises keep us flexible.

I tell my design classes that at the sampling stage it is impossible to make a mistake. I believe that. It is absolutely true.

While one must measure the sample against the original idea to

I weave . . . because I cannot stop.

see which way to go to get to that idea, the result that is quite different from what you intended is instructive, too. I like to say that it is not an error, not a mistake, but rather a signpost that points in another direction, a path to be explored, perhaps, another day. If we are paying attention, it is impossible to make a mistake.

Think about that a little bit. The notion, the understanding that it is impossible to make a mistake is very liberating. I think that the fear of making an error is an underrated form of bondage. Each time you have a new idea and you say it aloud or just in your head there will be a chorus telling you all the reasons it will not work. That chorus may consist of other people around you or the judges that live inside you. In either case, listening to and heeding that chorus will limit you and hold you back from doingfrom being—all that you can. Reach out. Take the risk.

It is important to remember that I

said, "if you are paying attention". If you pay attention, then the things you learn become a part of you, allowing you to become richer and broader in your understanding and your experience.

And isn't that true of our lives as well?

I weave because it is fun. I get pleasure out of starting out with an idea and making it happen. I take pleasure in touching the fibers, the yarns, the cloth. I wondered 18 years ago whether the excitement I felt each time I sat down to weave a new warp would wear off in time. I am happy to report that it hasn't—and I have woven, or written about, or taught about weaving practically every day for $18^{1/2}$ years. It is *still* fun.

I weave, perhaps most of all, because of the colors. I love color; it is my passion. I can almost taste it and hear it. I love putting colors together. I love to take a group of colors and by fiddling with their values, saturation, proportions, and placement, bring them into harmony. Sometimes I look for colors that are jarring, colors that seem to raise questions. I love the fact that colors can express quietness and serenity, excitement and gaiety, virtually all of the human emotions. They needn't be always the same. For that reason, I reject formulas for putting colors together. I would no more want everything I made to look just the same than I would want to feel exactly the same every day. Feeling the same presupposes no sorrow, but no joy either and I do not wish to be limited.

I weave because there is so much a weaver can do. If I could have figured it all out in a day, a month, a year, or even a decade, I would no longer be weaving. Having exhausted the possibilities, I would have moved on to something else.

Sometimes weavers say to me, with asperity, "But there is so much to learn!" Precisely. And isn't that a

—continued on page 32

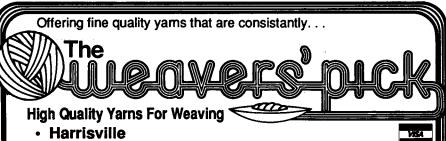
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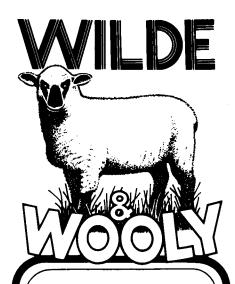
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March/April 1989 HANDWOVEN 31

FORUM

(continued from page 30)

good thing? It is *because* it takes more than a single lifetime to figure it all out that it is so interesting, so challenging. I love the fact that I will never get around to all of it. I love the fact that there are endless possibilities, endless things to try, endless variations on endless themes. I will never run out of things to try, things to think about, things to do. How *rich* our craft is!

As I have woven for the last 18 years I have noticed an interesting and surprising thing happening. The ideas that I have frequently seem to pop into my head when I am doing routine things: taking a walk, ironing, weaving. It is interesting to me just where these ideas come from. I love the leaps that join apparently disconnected facts or ideas. I have begun to see a pattern.

What interests me the most is that I seem to see my life developing in the cloth before me on the loom. I seem to be weaving my life. I notice that the colors I use have come—sometimes consciously, often not—from where I have been, from what I have seen, from what the natural world is doing, from music or words I have heard or read.

I notice, for example, that new hope is reflected in fresh-looking colors, the addition of more light. I am looking for a correlation between the urge to create complex structures or patterns and the events in my life.

As I have considered the implications of those observations, I have thought about weaving as a metaphor for life—and hasn't all I've said tonight been sort of a metaphor? When we are born, some things are given: the genetic makeup that produces our bodies and many of our capabilities and our families of origin who shape the early part of our lives. I think of these "givens" as the warp.

What we do with these "givens" counts. We may weave across our warp with subdued colors or choose a more flamboyant weft. Sometimes we may muddy the warp colors. We can do it all. We can choose complex structures and interactions of the warp with the weft of our days or we may simplify; we may do both.

Why do I weave . . .

I weave because I have ideas, because I love to create, because I want to create beauty and order, because it's fun, because of the colors and finally because weaving allows me the time—rhythmic activities are good for that—and, surprisingly, a means to examine my life, to live more consciously. For me, that has become a way of life.

Why do I weave? Oh my, given what weaving means to me, how on earth could I *not* do it? ❖





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HEN MY SONS were in grade school, they would occasionally come home and announce that it was "Opposite Day". This meant that they would say the opposite of what they meant; they would try to say sentences backward (usually unsuccessfully); they would try to do things backward. One favorite idea was that when it was time to go to bed they really should stay up. Then they would ponder the logical problem of how to say it was Opposite Day when everything they said was the opposite of the truth. Opposite Day usually petered out as they got tired of switching the silverware around on the table and sitting backward in chairs (although starting dinner with dessert always did seem like a good idea).

Going about things backward really isn't a bad idea for an occasional change of pace, especially as we get set in routines which are easy to do without thinking. Get up some morning and brush your teeth backward—if you normally start at the top, do the bottom, or go outside first rather than inside. When I try to do that, I usually feel that I

have done a better job, maybe just because I am thinking about it. I will sometimes vacuum the house backward.

When I consider weaving on an Opposite Day, the first thing that

Opposite Day

by Debbie Allen

comes to mind is to put the warp on in the direction opposite the usual one. I normally warp from back to front, but every now and then I will start putting my warp on at the front and go to the back. I have noticed that most people prefer to warp front to back, and this is my own little affirmation that it really doesn't make a big difference which

way you do it. Think about colors and designs on an Opposite Day. Had you planned on making something in reds and violets? Just for fun, consider yellows and greens. An accent stripe of yellow? What about violet instead? Do you normally like orderly, geometric shapes? Draw up a plan with free-flowing forms. Force yourself out of your normal routine and really try to look at things with a totally different perspective.

Of course, you do not actually have to weave all these ideas you have considered. Children understand. They are very selective and try to do only interesting things backward; when they get tired of that, they simply announce that Opposite Day is over. You, too, may decide that it is over and go back to your loom to continue your red and purple afghan. But maybe, in the back of your mind, the thought has appeared that someday you might try some yellow and green placemats or a tapestry in blues and greens. Opposite Day is a good way to explore beyond your normal ideas—we can all occasionally benefit from that. ❖

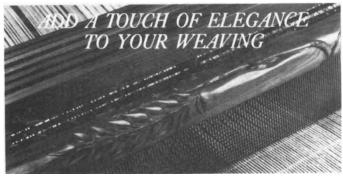
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Tricks of the Trade

Plush chair seats from thrums

I make chair seat covers out of all my thrums. I tie two strong strings on the warp beam as long as I need, put them through two heddles '/2" apart, and then attach them to the cloth beam. I cut waste yarn in 3" or 4" lengths and weave them on these two strings with a rya knot, with some rows of plain weave between to secure the knots. When I have ample lengths of this pile I sew it into a chair seat cover of whatever shape I want, like I'd sew a braided rug. I trim the surface even. These make beautiful seat covers.

Lucy K. Schaff, Platte Center, NE

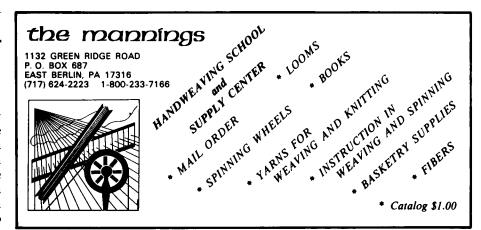
Selvedge tips

Some points that may help with selvedges:

- 1. Gradual tightening of the warp as the weaving progresses can be eased by a light tap on the brake (for tension-brake looms) or by letting up one tooth of the cloth beam ratchet (for dog-and-ratchet-brake looms). If this is done about three-quarters of the distance before the warp is advanced for the next section of weaving, the change in tension is not as great, so selvedge faults and streaks are minimized.
- 2. The best weaving area on most looms is the center third of the space between the beater at rest and the breast beam. Keeping within this area and advancing the warp frequently helps keep the selvedges even, because the warp never gets too tight and there is always enough room for laying the weft at an angle.
- 3. Too many weavers take the "lazy man's load" and wind too much on a bobbin. Either the weft rubs on the sides of the shuttle or falls off the end and catches as the bobbin or quill unwinds. A snagged weft, pulling on the selvedge, is one of the most annoying breaks in the rhythm of weaving and is most likely to contribute to breaking of selvedge warps.

 Gene E. Valk, Gloversville, NY

Do you have a nifty idea, hint or trick that you would like to share with our readers? If so, please send it to "Tricks of the Trade", Interweave Press, 306 N. Washington Ave., Loveland, CO 80537. If we use your trick, we'll send you a handy little weaving tool.



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Dear Tabby

Dear Tabby:

I use boat shuttles and bobbins. Why do my bobbins sometimes "hang up" and jerk the weft? It makes my selvedges look mousenibbled.

Signed, E.E.K!

Dear E.E.K:

Mice? Where? Lemme at 'em! (Ooops, sorry. I let my true nature get the better of me there for a minute.)

There are several different causes for bobbin hangup, most of them preventable.

- 1. You might be winding your bobbins too full or unevenly. A mounded bobbin can drag yarn against the sides or bottom of the shuttle trough. Try to wind the yarn on evenly with a rapid back-and-forth feed, and resist the temptation to load the bobbin with as much yarn as you can.
- 2. Your shuttle might have a very small orifice in the center of the side where the yarn feeds out. If it does and you mound the yarn on the bobbin, the yarn from the ends will drag across, or cut into the side of, the mound and slow the free rotation

of the bobbin. Again, wind the weft onto the bobbin evenly, building up the ends before the center (and resist the temptation to overload). It may help to enlarge the small shuttle orifice into a slot that is nearly as long as the bobbin.

- 3. Perhaps you have the type of shuttle (such as Leclerc) in which the base of the shaft is flattened so that it will pivot into a slit when you lift the shaft to insert or remove a bobbin. Some bobbins have a tapered hole so that they will fit the tapered spindle of a bobbin winder. If you put such a bobbin into such a shuttle with the small end of the hole toward the pivot end of the shaft, you're liable to have hangups.
- 4. Your problem might be use of bobbins that weren't made for that shuttle. If the ends of the shuttle's trough are very rounded or oval and the bobbin ends are very wide and square, the bobbin itself will drag, no matter how little yarn it is carrying. Try using smaller bobbins or a larger shuttle. Some manufacturers (such as Schacht) supply bobbins on which the tube of the bobbin is extended slightly

from the flanges, which prevents the bobbin from getting hung up at the ends of the trough.

5. Perhaps your problem is yarn leaping off the bobbin and "grabbing for dear life" to the shuttle shaft. If it's because you've wound the bobbin too full near the ends, rewind it correctly. If it's because the yarn itself is "springy" (like linen), try winding the bobbins shallowly and dampening the yarn slightly to soften its spring. If bobbin freewheeling or recoil is the culprit, you have a problem that's the opposite of most of the above "drags". Try wrapping a thin rubber band around the shuttle shaft to act as a drag on the inside of the bobbin and slow its rotation. —T.

All of the above are common problems with boat shuttles, which is the reason that many weavers are now using the relatively trouble-free end-feed shuttles.

Are you baffled, frustrated, don't know what to do? I'm here to help you with your weaving problems. Write: Aunt Tabby, Interweave Press, 306 North Washington Avenue, Loveland, Colorado 80537.

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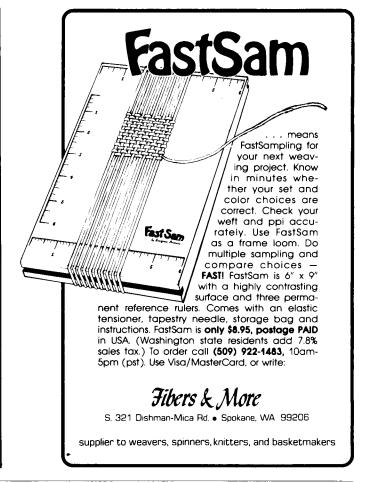
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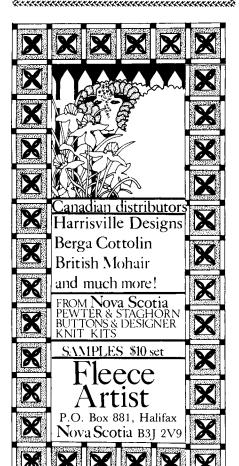
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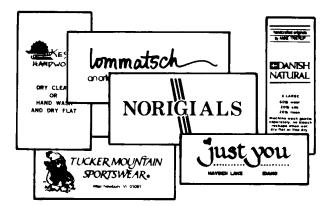
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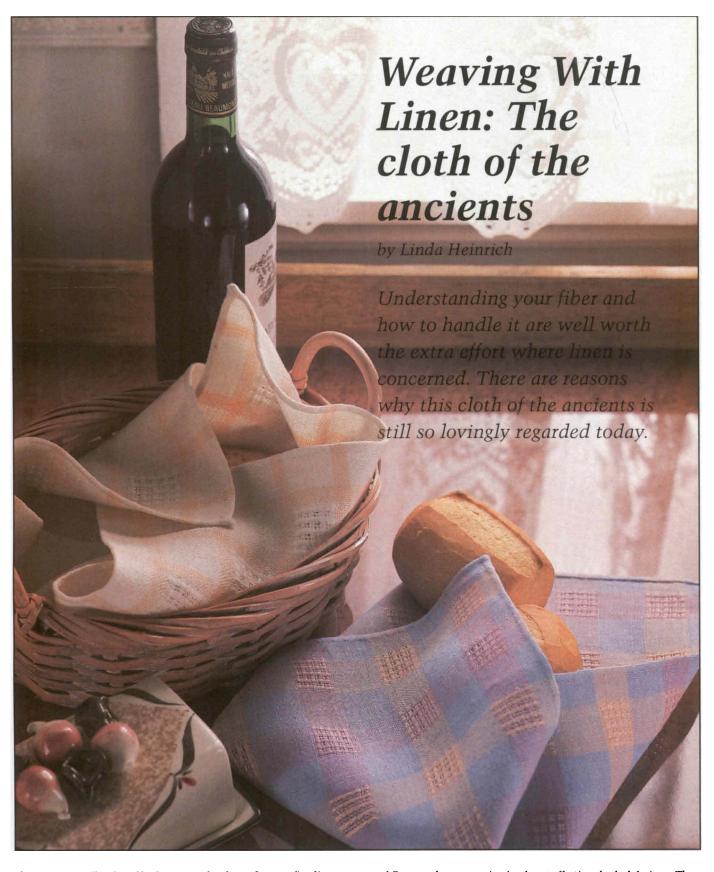
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These two **Breadbasket Cloths**, woven by the author use fine linen yarns and Bronson lace weave in simple yet effective checked designs. The **Peach and White Square** is woven in 16/2 linen set at 20 e.p.i.; the **Pastel Plaid Square** is woven in 16/1 linen at 30 e.p.i. Instructions for both cloths are in the Instruction Supplement.



The Maize Linen Hand Towel shown here is a good first-time linen project. It's woven of manageable 16/2 linen and requires a 20 e.p.i. sett. Plain weave borders and hemstitching set off the texture of the huck weave in an elegant, handweaverly way. On the same theme, the Monogrammed Guest Towels, are an ideal project for a special-occasion gift, an appealing challenge for even the most experienced. Both designs are by the author. Complete weaving details appear in the Instruction Supplement.

Ithough fragments of linen Acloth have been discovered in Stone Age lake dwellings, it was the ancient Egyptians who used linen extensively in their daily lives. Linen was used for cool clothing and bedding, for sturdy ropes and sails; most significantly, linen cloth was used to wrap their dead, animal as well as human. When the practice of mummification ceased with the advent of Christianity into Egypt in the third century A.D., linen found a place as altar cloths and priestly vestments. Linen continues to be used in some churches today, and has established itself as the fiber of preference for the finest damask tablecloths and napkins for the most special occasions.

Deceptively fragile in appearance, the flax plant yields a fiber second in strength only to silk. Its primary by-product, linen (for that is the name flax takes after it's spun), is enjoying a resurgence not only for table use but for other household furnishings as well. Linen's strength and capacity to resist dust make it an ideal choice for upholstery and wall coverings; its resistance to light and lack of elasticity make it suitable for draperies. Recently, stimulated by superb Italian design, the fashion industry has been featuring classic linen garments. Weavers, too, have a renewed interest in this sometimes recalcitrant fiber.

Selecting a linen yarn

The best quality linen, line linen, is smooth and shiny and is obtained from the longest, strongest, lustrous flax fibers. Tow linens are obtained from shorter, less shiny and weaker fibers. Linen yarns may be single or plied, wet spun or dry spun. Finer counts are obtained by the wet-spinning process, as the fibers which have been treated with very warm

water are softened and able to slip by one another. The moisture also smooths the hairy tendrils. Dryspun "hairy" linen fibers are better suited for weft, as they are unable to withstand the abrasive action of the reed. Rarely is there a difficulty weaving with a plied linen yarn. Difficulties most often occur with a poor quality singles linen warp. If the fiber appears "hairy" or breaks easily, use it for weft. Linens woven with a tightly twisted fiber will not be as soft as those woven with yarn of a looser twist.

SOME SUGGESTED SETTS FOR COMMONLY-USED LINEN YARNS

For the more experienced weaver: 40/2 at 30–32 e.p.i. ...40/2 or 20/1 20/1 at 30–32 e.p.i.20/1 16/1 at 28–30 e.p.i.16/1

Linen is measured in leas. A No. 1 lea contains 300 yards to the pound: No. 10 singles yarn (10/1) contains 3000 yards, and a 10/2 contains 1500 yards $(10 \times 300 \text{ divided by the number of plies, 2}).$

A plied linen yarn used for warp and weft produces a more substantial fabric than one woven entirely with a singles of the same grist (thickness). The latter will be softer and silkier. A plied warp with a singles weft will produce a softer and more textured fabric than one of all plied yarn, but will not be as soft as a fabric of all singles. I've found that yarns with more than two plies produce a stiff cloth, but they can be used to good effect with the proper fabric design.

There are advantages to using a

singles weft over a plied weft.
Singles yarns are less expensive and
less draw-in occurs. As well, singles
linens, particularly line linens, are
more lustrous, the ply interfering
with light reflection.

Weave structure and the importance of sett

Using a weave structure that enhances your fiber is important when planning linen projects. For example, the longer floats in twills and lace weaves reflect more light and show off linen's luster. Handmanipulated techniques, such as Brooks bouquet, Spanish lace, inlay, or drawn work do much to enhance an otherwise plain weave. Keep in mind that the weave structure you choose will have an effect on the "hand" of the finished cloth. I've found that linen is best understated—a little embellishment goes a long way.

The proper sett is more critical for linen than for other natural fibers because linen does not expand as much upon washing, nor can it be fulled like wool or shrunk like cotton. Note that singles linen yarn will spread more during the finishing process than a plied yarn because it can be pressed flatter.

When setting linens, I've found that balanced linen weaves usually look better when the warp and weft are identical or are at least of the same grist; however, differing weights and setts can be used to achieve striking effects. Unless deliberately designed to be space dented or crowded, a plain weave cloth should appear quite solid when held up to the light (no little air spaces). An increase of just two ends per inch, for example, can make a considerable difference in the hand of the cloth or the appearance of the design. Before altering the sett, count the number of

warp ends and weft picks for a full inch to make sure that they are equal.

Weave structure affects sett. A given size of linen will be set more closely for twills and lace weaves than for plain weave. Satins will be set closer still. On the other hand, weave structures requiring a tabby and pattern weft should have a slightly wider sett than that required for plain weave.

You will find that there will be less abrasion on your warp yarns if you sley the reed with two or more yarns per dent, rather than with just one end per dent. If you use irregular denting (for example, a sley of 2, 3, 2, 3), sample first to determine whether or not the ends per inch will equalize with washing and pressing. Vertical reed marks detract from the beauty of the finished cloth. I wash the sample at least three or four times, agitating it well, to determine the final finished result.

If you're a first-time linen weaver, I suggest that you begin with a narrow warp (12"–15" wide). You'll find a plied linen (16/2 or 20/2), perhaps in a lace weave or twill, the easiest to work with for the first piece.

Color

Color is so subjective, but I feel you should make your linen color decisions with the utmost care. First, choose colors in accordance with what they will be placed next to. You'll need to consider color arrangement and proportion. Keep in mind that color reflects mood. For example, pure white, creamy eggshell, or soft pastel linens together with silver, fine china and sparkling crystal impart an ambience much different from that of natural linens in combinations with handcrafted woods and earthenware. By con-

PROPERTIES OF LINEN

- *Linen has a smooth surface. It tends to repel dirt and bacteria. Stains are removed easily. These properties make it ideal for handkerchiefs and table linens.
- *Linen is the least elastic of the natural fibers; therefore, it is excellent for artist and embroidery canvas, draperies, wall hangings, and rug warps.
- *Linen is absorbent and dries quickly. It is excellent for towels and handkerchiefs.
- *Linen is vulnerable to mildew; therefore, it should never be stored damp.
- *Linen is more resistant to light than cotton, which makes it ideal for draperies.
- *Linen is second in strength to silk.
- *Linen shrinks very little, usually less than 10% (mostly due to take-up).
- *Linen conducts heat away from the body and is thus comfortable for clothing and bedding in hot climates.
- *Linen is not damaged by moths unless it is starched (moths love starch).
- *Linen's most undesirable property is that it wrinkles easily. Consequently, it is more suitable for household furnishings than for clothing. However, when it is combined with other natural fibers or treated with wrinkle-resistant chemicals (as in industry), the tendency to crease is somewhat reduced.

trast, the brilliant Scandinavian hues lend a contemporary flavor to a setting.

An array of dyed linen yarns are available to the handweaver. Most are colorfast but others are not. Especially if you will be using a bright color such as red or blue with white or a very light color, I recommend that you test your yarns for colorfastness before you begin your project. (I check for fastness by dampening a piece of yarn and placing it in a white towel. If it "runs" I know it's not fast.) Also, when using more than one skein of a color, be sure that the dyelots match. They may appear to be exactly the same color when viewed in the skein side-by-side, by even the slightest color variation will show up when woven.

In their undyed state, linen yarns may be a fourth, half, or totally bleached, and will consequently be different shades (the yarn label should tell you what bleaching has been done). Natural (undyed or unbleached) linens may be gray or golden tan, reflecting the type of retting process they have undergone. Gray linens have been dew retted, whereas golden tan linens have been water retted. Linen yarns are strongest in their natural, undyed or unbleached, state.

Warping and weaving considerations

Your loom should be in good working order and all parts smooth and solid. The reed, for example, should be well secured in its holder. Counterbalance and countermarch looms, because the threads are pulled apart with equal tension when the shed is opened, are thought by some weavers to be the best for weaving linen. On the other hand, I have used a jack loom (where one set of threads is raised

while the lower threads remain stationary), with no tension problems whatever. Perhaps, as different sheds open, the tension between threads is equalized.

I can't stress enough that establishing perfect tension of the warp threads is the single most important factor when winding a linen warp and applying it to the loom. To ensure that your warp yarns are the same length place threads side by side on the warping board or mill, not bunched up on top of one another. A coarse reed used to spread the warp rather than a raddle provides a more orderly application of the warp.

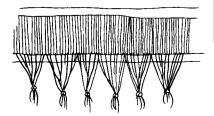
Wind the warp onto the beam before threading and sleying. (The front-to-back method of dressing the loom causes too much wear on a fine singles thread.) As you wind the warp on the back beam, place smooth, flat sticks, longer than the width of the warp, side by side for one complete revolution. Then insert one stick every revolution (beside, not on top of, the previous one). After threading and sleying, brush the warp ends gently (I use a soft-bristled dog brush) in small groups, removing any slack. Tie them in overhand knots near the ends. To tie onto the front apron rod, use a smooth, strong cord, and lace the groups to the rod, leaving a space between the knots and the rod. Adjust the warp tension until it is absolutely even (see illustration).

Even with my experience, I find that fine singles linen must be woven with patience and care. You may find that the first 12"–15" of a fine singles warp may be fuzzy due to handling during threading, sleying, and knotting. Use this section for experimentation, as this fuzziness will not be eliminated during the finishing process.

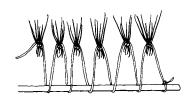
Weaving difficulties most commonly occur at the selvedges. Here

are some problems you might encounter, along with possible solutions.

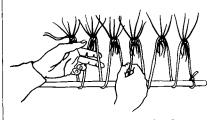
Tying on using the lashing method.



Tie small groups of warp in overhand knots near the ends of the warps.



Tie onto the front apron rod using a smooth, strong cord. Lace groups to the rod, leaving space between the knots and the rod.



Adjust tension until it is absolutely even.

Problem: Fuzzy, fraying, and breaking singles warp ends, occurring most often with a plain weave and with excessive draw-in.

Solutions:

1. Substitute edge threads with a plied thread of the same grist (for example, if your warp is a 20/1 singles, use a 40/2 plied linen for

the selvedges).

- 2. Use a temple to keep your warp stretched out to the proper width.
- 3. Change the shed with the beater against the web.
- 4. Reduce stress on the selvedges by decreasing the draw-in during weaving. Extend your arm well out when catching the shuttle. Relax the weft before re-entering the shuttle into the next shed.
- 5. Brush the warp with tallow or flaxseed solution. (Recipe for flaxseed solution: 1 teaspoon of flaxseed per cup of water. Simmer 10-15 minutes, strain. Keep refrigerated. Lasts about 2 weeks.)

Problem: Loops at the selvedges. **Solutions**:

- 1. Decrease the angle of the weft so that there's less weft take-up.
- 2. To make your yarn less springy, dampen the weft by soaking the wound bobbin for about an hour in water and squeezing moisture into a thick towel. (If this is done it should be carried out for the entire piece.)
- 3. Slow down the speed of the bobbin by wrapping the spindle of the shuttle with masking tape.

Problem: Notched or uneven selvedges.

Solution: Your bobbin may be unwinding unevenly. Rewind the bobbin, holding the yarn firmly and applying some tension during the winding process.

Problem: Loose thread in the middle of the warp.

Solution: Tighten a loose thread by either weighting it at the back of the loom or drawing the slack forward and winding it around a pin. When the cloth is removed from the loom and prior to washing, remove the pin and ease the slack out to the edge of the cloth.

Problem: Difficulty in achieving a balanced weave when it is required for handwork or for a square-patterned cloth.

Solution: Use a linen tester (measure or counter) to count the number of warp ends and weft picks per square inch. Count for a full inch, as weft take-up slightly increases the number of warp ends per inch from that originally set. Adjust the beat accordingly.

Advance the weaving frequently and consistently (I advance my warp every 2"-3"). When possible, complete small articles at one sitting. If your atmosphere is dry, a humidifier or tub of water under the loom will help, for linen is stronger when damp. If air is excessively dry, relax the tension on the loom when leaving it for an extended period of time; otherwise, your warp ends may snap.

Unweaving linen

Unweaving a plied linen warp does not usually present problems. However, unweaving a fine singles linen warp might be horrific. Difficulties occur mostly with the edge threads, which may dissolve before your eyes (all the more reason to put those plied threads of the same grist at the edges). Increase the tension of the warp threads, do not attempt to unweave, but rather snip the weft at intervals across the width and remove the pieces very carefully. Do not use the beater, as a line of fuzz may become apparent on the web. If warp ends stick, separate the shed by hand or with a smooth stick.

Finishing

No woven fabric is complete without finishing. Linen, which appears "stringy" when removed from the loom, is no exception. Before washing, clip warp ends to within 1" of the web, correct mistakes (if any), and secure raw edges with stay stitching. (I often leave the heading in during the finishing process.) Wash delicate linens in a sink of hot, soapy water (use a mild soap). Rinse thoroughly. Machine wash larger pieces but remove them before the spin cycle to prevent creases from setting in. Machine drying dulls linen and makes it more difficult to press. Roll rinsed linens in thick towels to remove excess moisture; re-establish their shape and press damp with a clean,

medium-hot iron. Clip ends to the surface of the web.

The last side to be pressed will be the shinier, the other retaining a more textured appearance. With each subsequent laundering, the beauty of the linen is enhanced. Linen should not be stored damp, as it is subject to mildew.

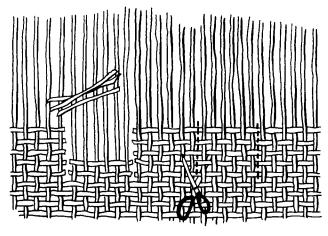
Alternatively, you might try the finishing method used by Greta Johansson, principal of Saterglantan at Insjon, Sweden. She washes her damask napkins in a sink of warm, soapy water, sponging out soiled spots. After rinsing them well, she places each dripping wet napkin on a stainless steel counter, reshapes it, and sponges out creases, moisture and air bubbles. A napkin treated in this way and then left to dry does not require pressing. When she does press linen, Greta prefers a cold mangle to a hot one, feeling that heat destroys the fiber. This supports the idea that it is pressure that is required to remove creases, not heat. The linen is damp whichever method, hot or cold, is used.

Certainly, more care and patience is required with this fiber than with other natural fibers, but beautiful linens can be created with thoughtful planning, careful warping, and meticulous weaving and finishing. Simple linen basket liners sprinkled with lace, rolled, tied with matching ribbons and placed in wicker baskets make lovely gifts—good first projects! Now is the time to consult with experienced linen weavers in your guild and to examine museum collections, for each linen cloth offers useful information which may serve you well as a catalyst for your own original designs. �

Linda Heinrich has devoted the last 10 years to research on linen. She is currently writting a book on the subject. Linda lives in Victoria, British Columbia. For more about Linda and her work, see the Gallery on page 61.

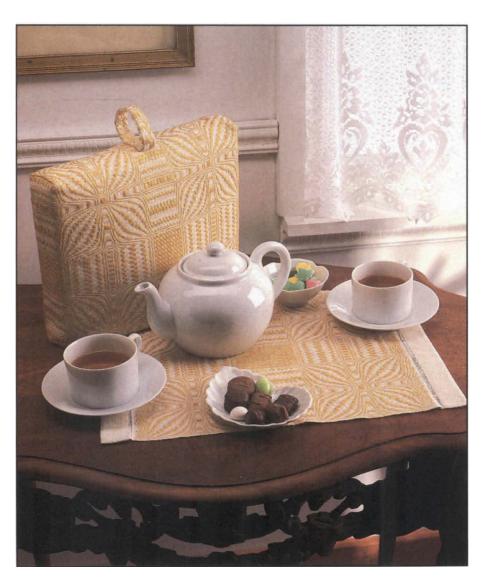
Unweaving Linen

Increase the tension of the warp threads, snip across the width at intervals, and remove pieces very carefully.





LINEN INSPIRATION This elegant placemat woven by Jo Goodrich has a subtle border on all four sides of lines of short skips in warp and weft on the face of the mat. The yarn is 12/3 half-bleached linen set at 15 e.p.i. Complete weaving details for our Bordered Linen Mat are in the Instruction Supplement.



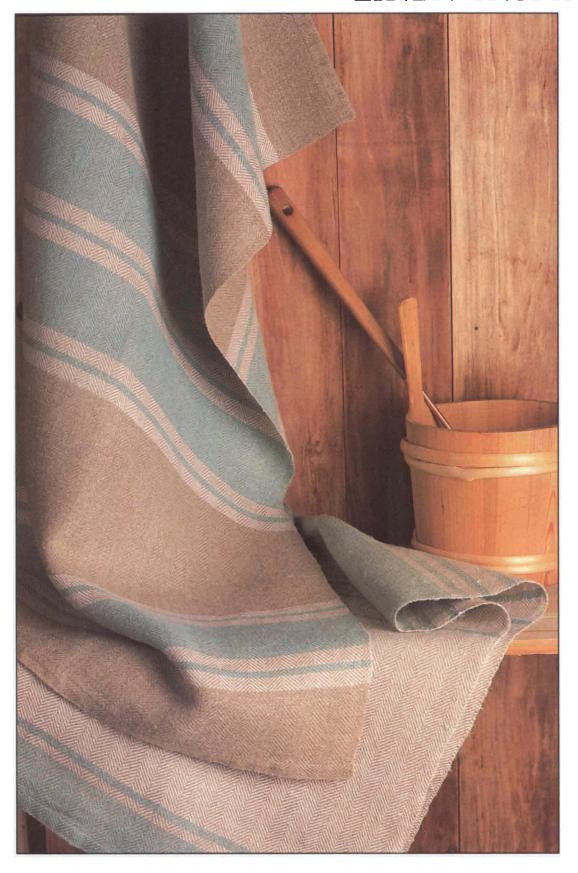
LINEN INSPIRATION

This page, our **Tea Cozy with Placemats**, by Bep Kamphuis, are woven in "Double Bowknot" overshot pattern using a linen pattern weft over an all-cotton ground. If you're still feeling hesitant about putting on a fine linen warp, this project offers you a good alternative to an all-linen piece. You could, of course, substitute linen for the cotton background, using a 16/1 or 20/1 at the same sett.

Opposite, elegant jacket lines and a fancy huck weave make this a refreshing design suitable for spring wearing. Louise Bradley wove patterned fabric for the main part of the jacket and plain weave for facings, hems, button coverings, and bias covering of cording used as piping around all edges. For complete instructions, please see the Instruction Supplement for this Crisp Linen Jacket. Yarns courtesy of Halcyon Yarn.



LINEN INSPIRATION



Finnish native Kaino Leethem designed these Sauna Towels in Thirsty Linen, reminiscent of the ones she remembers so well. Inspired by a draft in Finnish handcraft magazine Kotiteollisuus, both of these towels are woven on the same warp, threaded to a herringbone twill, woven with a straight twill treadling. Instructions are in the Instruction Supplement. Yarns courtesy of Schoolhouse Yarns.

"Linen's history is linked to that of the new country and a people striving for survival and self-sufficiency."



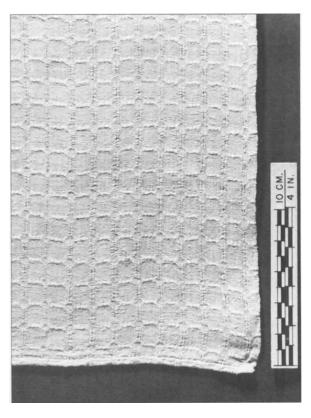
by Kax Wilson



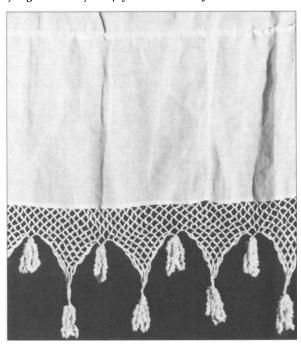
"Flax Scutching Bee", by Linton Park, 1885. National Gallery of Art, Washington, D.C.
Gift of Edgar William and Bernice Chrysler Garbisch, 1953.

INEN BELONGS TO our homespun heritage, our folk culture. Its properties are analogous to the images we have of our Early American forebears; sturdy, durable, dependable, and having a beauty of life unsullied by the factory. Linen does not belong in a throwaway society.

Linen's history is linked to that of the new country and a people striving for survival and self-sufficiency. Flax production was connected closely to the rhythms of seasons and weather; the work was not easy (see box on page 52).



Above: Detail of linen tablecloth in M's and O's. This cloth is made up of two 29¹/₄" widths stitched together. This piece was probably made in the early nineteenth century. Copp Family Textile Collection, Smithsonian Institution, Washington D.C., photo #61980. Below: Detail of fringed valance from the Copp Family Textile Collection, Smithsonian Institution, Washington, D.C., photo #61290D. The valance measures 22¹/₂' long and is made up of eight widths of 34" long white linen woven of Z-twist singles yarn. The netted fringe is made of two-ply S-twist cotton yarn.



Colonial Linen

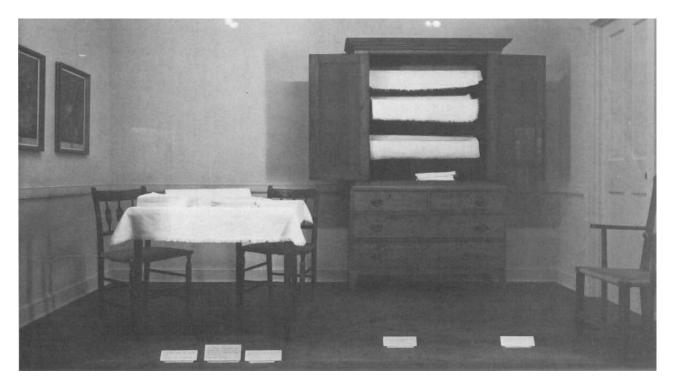
The actual amounts of "home-spun" produced by the colonists fluctuated as economic, political, and religious conditions in Great Britain changed. The first settlers brought with them their supplies of clothing and household linens, and in the first 25 years, when food and shelter were the primary concerns, little clothing was produced. Numerous ships carrying new settlers brought replenishments.

By 1640, however, political conditions had improved in England and fewer people were leaving. Not only was there a smaller supply of English textiles in America, but there was less cash derived from the sale of farm produce to new arrivals. The Massachusetts General Court was concerned enough to make a survey of the number of spinners and amounts of flaxseed available, to order that boys and girls be taught to spin, and to offer bounties for home-woven linen. Soon, each family had to spin a certain amount of flax each year or pay a fine. Similar orders went out in Connecticut, Pennsylvania, Maryland, and Virginia.

In 1718 a spinning school was set up on Boston Common, and in 1720 the town supplied 20 wheels for children sent there from the almshouse. Spinning was an activity demanded of both the indigent and jail inmates in early America as well as an activity considered to be suitable paid employment for spinsters and widows.

The early eighteenth century also saw one of the crazes for spinning that developed periodically among well-to-do women. The hobby stimulated a lively trade in fancy and elegant wheels. Spinning contests, bees, and parties were popular.

As always, status symbols had value, and in the eighteenth century surplus cash purchased imported luxury textiles as well as utilitarian ones. Boston and Philadelphia shops carried Irish linen, fine and coarse lawns, holland for sheets and shirts, linen curtain fabrics, lockram



An extensive collection of household textiles used by the Copp family of Stonington, Connecticut, between 1750 and 1850 was presented to the U.S. National Museum in the 1890s by John Brenton Copp. All the textiles of this collection were either made or bought by the Copp family and are excellent examples of the textiles which one would have found in a prosperous household during this period. The photograph (#65546)shows some of the table linens which were used as part of a display of the Copp Family Textiles at the Smithsonian in 1971.

and osnaburg (both coarse fabrics), diapers, and damasks. When money was short a woman would make what she could at home and hoard her cash for special purchases.

The first of what could truly be called a linen industry was started around 1720 by a hundred Scotch-Irish families who immigrated to Londonderry, New Hampshire. An economical division and specialization of labor were shared by the whole community—outdoor tasks usually performed by men, indoor ones by women and children. Yarn was spun at home and taken to the town's professional weavers, the finished cloth sold at local fairs. It has been said that these spinners, who were noted for exceptionally fine thread, introduced the small, foot-pedaled flax wheel to America. During the next 50 years Londonderry folk mingled and married throughout New England and New York, teaching their skills.

Trade restrictions during the French and Indian War in the late 1750s and early 1760s served to encourage linen production. Small industries were associated with the Dutch in New Amsterdam, the Swedes in Delaware, and the Germans near Philadelphia. A few surpluses were exported to other colonies.

Imports surged briefly in the 1760s, but soon both England and America experienced an economic depression. As relations with Great Britain became more and more strained, particularly over taxes levied to pay for the wars with France, the spirit of American patriotism grew. That spirit was expressed by the many women who increased the tempo of wheel and loom. Homespun was now the fashion fabric of choice. Awards were offered by societies promoting agriculture and economy.

During the Revolution domestic

production could not meet demand. There simply was not enough raw material or productive capacity.

Not many everyday eighteenth-century fabrics are extant, but the Smithsonian Institution owns an important and interesting collection of textiles that once belonged to the Copp family of Stonington, Connecticut. The collection, which spans the period from 1750 to 1850, is a mix of homemade and purchased, mostly utilitarian textiles. The dozens of sheets, bolts of ticking, initialed towels, tablecloths, and coverlets were analyzed by Grace Rogers Cooper (*The Copp Family Textiles*, Smithsonian Institution Press, 1971).

Nineteenth-Century Linen

By the end of the Revolution in 1781, spinners were very receptive to the flood of foreign textiles that landed even before the Treaty of

Paris was signed. But many hopes for work-free finery were thwarted by an acute shortage of money, and so the women kept working.

The new nation was in serious economic trouble. Leaders knew that the United States had to gain economic independence if it was to retain political independence. There was little capital and little skilled labor and no system for distribution of goods. The public resisted the idea of the United States' becoming a nation of factory workers, degraded by machines: farming was considered the ideal activity. This feeling persisted well into the nineteenth century. Nevertheless, under both public and private pressures, many Americans became factory workers and family production gradually diminished.

Linen's fate was sealed: it went with the farmers. It was slow to go to the factory because the machinery developed in England during the late eighteenth century could not handle the brittle flax fiber. By



Breaking flax. Detail of an 1885 engraving.

the middle of the nineteenth century, when the machinery was adequate, the country was no longer growing enough flax to support much of an industry. Cotton, much easier to process, replaced flax for many uses. Early in the nineteenth century machine-spun cotton yarn could be purchased in most areas of the country, and power-loomed cot-

tons were available by 1815.

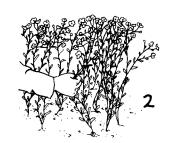
Flax moved with the settlers as western lands opened. No longer associated mainly with New England and Virginia, flax found space on the family farm in Pennsylvania, New York, and Ohio, far from the sources of both imports and factorymade textiles. Inland, cash was usually scarcer, and there were few opportunities to draw labor off the farm. Young people could be put to work, scutching and spinning and taking turns at the family loom.

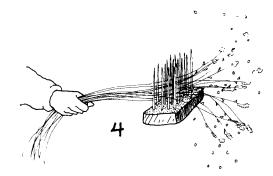
Some statistics from Rolla M. Tryon (Household Manufactures in the United States, 1640-1860, University of Chicago Press, 1917) show patterns of linen production. In 1810 more than five million yards of linen was produced in New York State. Virginia produced another five million yards, Pennsylvania nearly three million, New Hampshire and Connecticut two million each, and Ohio one million. In New York State nearly ten yards of cloth per person was produced at home

FLAX—the process









- 1. Sow the seed sometime between late March and early May. For family needs plan for about a ½ acre per year sown at the rate of ½ bushels per acre. (In nineteenth century documents it's noted that a 20′ by 30′ patch sown with 2 lb of seed will produce enough fiber for a tablecloth or bed sheet. Today, because of improved germination, you'd need less seed.)
- 2. *Pull* the ripe plants about three months later when plants are 2' to 3' tall.3. *Dry* by stacking bundles or hanging
- 3. *Dry* by stacking bundles or hanging on a line.
- 4. *Ripple* by pulling flax through a coarse comb, or beat with a flail to remove the seeds.
- 5. Ret to decompose the inner pith and release the fiber from the woody matter by spreading on a meadow for several weeks or immersing in a stream for eight to ten days.
- 6. Dry again in loft or kiln.
- 7. Brake, break, or crackle to separate the fiber from the woody outer stalks. This is done on a wooden beam 4' to 5' long supported on legs. On top is another beam hinged on one end. The free end is

in 1825. By 1855 the amount was down to less than one yard. In 1845 New York had 46,000 acres planted to flax, in 1855, less than 13,000.

A valuable study that could probably represent communities in other states was made by Ellen J. Gehret and Alan G. Keyser (*The Homespun Textile Tradition of the Pennsylvania Germans*, Harrisburg, Pennsylvania Historical and Museum Commission, 1976). In the early nineteenth century the Pennsylvania Germans continued the domestic production begun in the late seventeenth century. Most farms had a flax patch to supply both fiber for the household and a product for the linseed oil mills.

The farmer's wife was responsible for the spinning, although she often hired help to do it. Handspinners were paid by the "cut", a basic measurement used to determine how much cloth could be woven from a batch of yarn. The Pennsylvania reel measured between 72" and 76" in circumference. After 150



Scutching flax. Detail of an 1885 engraving.

revolutions, or after winding about 300 yards, the reel clicked, and a thread was wrapped around the cut. Six cuts made a skein.

In Pennsylvania weaving was mainly by professionals, many using the fly shuttle. They were second- and third-generation Americans, who had learned their trade from eighteenth-century German immigrants. Most New York and Ohio weavers had come from

the British Isles early in the nineteenth century, displaced by the power looms of the Industrial Revolution. They traveled slowly westward, seeking land where they could farm a little and have a weaving business in the house or a separate shop. The legendary itinerant weaver was probably a rarity, perhaps someone in the process of migrating or desperate for work. Like other tradesmen, the weavers farmed enough to feed their families and often did day labor in the community.

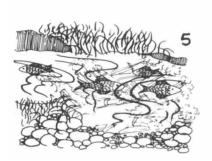
About 1820, when large amounts of machine-woven cotton fabrics became available for utilitarian purposes, the weavers turned to making patterned linens, coverlets, and eventually carpets. This was the last generation to earn any kind of living from handweaving. The occupation was practically extinct by 1870, after enjoying a little spurt during the Civil War.

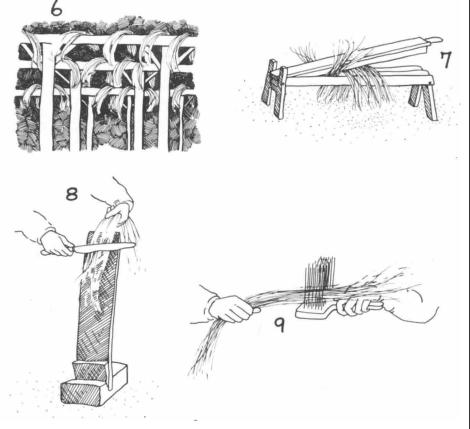
Kax Wilson is the author of A History of Textiles. She lives in Rushville, New York.

lifted and dropped on handfuls of flax. 8. Scutch or swingle to remove pieces of straw and soften the fiber by holding handfuls of flax over a vertical board and working a wooden knife down in a scraping motion.

9. Hackle, heckle, or hetchel to separate the long line fibers from the short tow by drawing through combs (wooden blocks set with spikes) graduated in size from coarse to fine.

Spread the line or tow into a web and wind it around the distaff of the wheel. Tie with a pretty ribbon and the fibers are ready to be drawn out, moistened, and spun. By now at least a year has gone by since the seeds were sown.









Shaker Towel in M's & O's

his reproduction towel,
woven by Mary Elva Congleton Erf of Glastonbury, Connecticut, is from a towel Mary Elva documented at the Hancock Shaker Village in Massachusetts and similar to
one at Canterbury Shaker Village in
New Hampshire. It was woven for
the Shaker Retiring Room at the
Metropolitan Museum, a permanent exhibit which is furnished with
original hand-worked furniture and
paneling but with reproduction textiles. The towel from which this
design was taken had no initials.

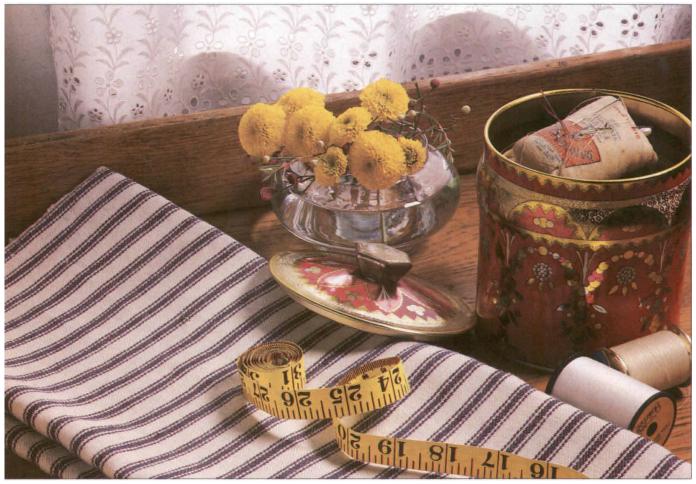
Since many museums preserve original linens in controlled climates, Mary Elva realized that there was a need for reproduction textiles for museum displays. After extensive research into Shaker towels, Mary Elva decided to offer a Shaker Towel Workshop where she could share her findings and patterns with interested weavers and help the cause of supplying reproduction linens to museums. Her novel idea of requesting payment for her workshops in reproduction towels woven by the participants for use in Shaker museums has been successful to the point that she is no longer offering this workshop. Her new workshop, Shaker Weft-Twisted Rugs, is organized in the same man-

Please see the Instruction Supplement for complete weaving details for Shaker Towel in M's & O's.



Huck Towel. This towel, woven by Patricia Mansfield of Wilmore, Kentucky, is a reproduction of an old towel from the Hancock Shaker Village in Massachusetts. It is unusual in its cross-stitched monogram. Patricia wove this towel as part of a Shaker Linen Workshop given by Mary Elva Erf. Her towel has been donated to Pleasant Hill as part of their permanent collection of reproduction Shaker linens. "It has always been a dream of mine," notes Patricia, "to be transported 150 years back and spend one day in a Shaker colony. Wouldn't it be fun to meet the mysterious 'O.F.' whose initials are on this towel?" Please see the Instruction Supplement for complete weaving details for this **Reproduction Towel**.

Linen Ticking by Constance LaLena



This **Linen Ticking** woven by Constance LaLena is a 2/1 twill woven with 16/1 linen set at 40 e.p.i. Details for weaving this fabric appear in the Instruction Supplement. Yarns courtesy Yarnworks, Grand Junction, Colorado.

think it would be hard to be a weaver with no regard for the past; I am continually stimulated both by ideas from old textiles I see and by a sense of links to long-gone weavers. Nowhere do I feel this more strongly than when weaving humble fabrics for the home. Common utilitarian fabrics have formed the basis of household and institutional "linens" for as long as people have been interested in comfort and cleanliness. With our 20th-century emphasis on fashion in home furnishing, it is indeed a surprise to find that many utilitarian fabrics of today are little changed from their predecessors centuries ago.

Institutions, always slow to change fundamental ways of doing things, have particularly retained in use many of these very old types of fabrics. For example, during a hospital stay a few years ago, I was startled to discover that the white cotton fabric the hospital used as a blanket covering bore a striking resemblance to an 18th-century fabric called dimity. This dimity, which was much used for bedcoverings and bed and window hangings around the turn of the 19th century, was a stout fabric of plain weave and twill vertical stripes forming furrows. By 1800, dimity had had a long history of use; it was important enough in France in 1701 that a regulation governed its manufacture which had continued since 1580. So there in a hospital room was a fabric which by design and function had changed little in 400 years. (Only my indisposition at the time prevented my counting the threads to record the exact weave structure!)

When I went off to college (ahem) nearly 30 years ago, I bought for my dormitory room bed a "Bates" bedspread, that durable horizontally corded classic. Little did I realize at the time that virtually the same fabric had been used for bedspreads for at least 175 years, often in white as a base for candlewick embroidery. Other humble household and institutional fabrics that remain little changed are towellings such as huck and twills.

Fabrics called ticking are sewn into bags and stuffed with straw or feathers to make a pad for sleeping. So common and necessary were these fabrics that the word "tick" (meaning both the cut of ticking fabric and the finished ticking bag itself) has been a part of English vocabulary for at least 500 years. By the 18th century, the use of warpfaced twill as a weave structure for ticking was well established, in addition to the use of lengthwise decorative stripes of indigo blue and white. Today, our idea of ticking is so well defined that we call a particular stripe pattern "ticking" and instantly recognize its proportions, even though its contemporary colors are not always blue and white and its use extends to fashion and craft applications. What really amazes me about ticking, though, is that the thread-for-thread stripe pattern of woven ticking we find in modern fabric stores (the same ticking I knew as a child in my grandmother's feather beds and the straw ticks of summer camp) is the SAME

Ticking (also bedticking).
Traditionally woven in indigo
blue stripes on cream, usually of
twill construction. It was used
for bedding, aprons and domestic
linens.

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thread-for-thread stripe pattern that was in documented use 170 years ago! And so is the three-shaft twill weave structure. Both the stripe pattern and weave structure for ticking are clearly set forth in *The Domestic* Manufacturer's Assistant, and Family Directory, in the Arts of Weaving and Dyeing by J. and R. Bronson, published in Utica, New York, in 1817. (It is currently in print from Dover Books under the title Early American Weaving and Dyeing.) That this stripe pattern must date back even earlier is indicated by a late 18thcentury length of linen ticking from the Copp family collection at the Smithsonian Institution. That length of fabric is remarkably like both the Bronson ticking and modern ticking. Although modern weavers will want to weave ticking fabric in a width suited to their intended purposes, in the Bronsons' time, ticking was woven 1/8 wide, that is, 1/8 of a yard, or about 311/2" wide. A standard tick, by the way, was then 13 yards of fabric; seamed down the

middle, the 13 yards would make a tick that would fit a modern double bed.

The weave structure used for this ticking is a three-shaft twill, just as specified in the 1817 ticking, but our version of the fabric is set only 40 ends per inch, thus the scale of the stripes is somewhat bold. (If we had wanted a more exact representation of an 18th-century linen ticking, a sett of 60-64 ends per inch and a finer linen would have been necessary. The Bronsons were using a #12 cotton, and a sett of 72.) The weight of this fabric is quite substantial (about 101/2 ounces per square yard), and it would make wonderful modern slipcovers or upholstery (try a contemporary color combination like cream and rose). In my experience, singles linen is no more trouble to weave than plied linen: just be meticulous in your warping methods. I used a warping paddle and a spool of linen for each of the 30 threads in the color repeat. (You could also use just 15 spools, breaking your repeat in the middle of the 6-thread blue section and taking care to REVERSE in mirror image at the turn-around warping peg.) I've written the draft so the fabric is woven upside down; that way, you always have two shafts down and one up. Rhythmic treadling is always tricky when the treadling sequence is an odd number. In this case, the pattern repeats in three picks, but to preserve the "walking" rhythm of weaving, I've tied up to six treadles. The Bronsons used five treadles, and I've given that version, too.

Once you've woven as humble a fabric as this ticking in linen, you'll agree it was worth the effort, because linen lends a richness and luster that is totally lost in modern cotton ticking. It's hard to imagine that such beauty and quality were once every-day common.

Constance LaLena, Grand Junction, Colorado, is a studio weaver whose most memorable ticking project was woven for a client who used it in the restoration of an 18th-century asylum.

Linen Resource Guide— What's available and where to find it.

Many linen yarns are available to the handweaver. This listing includes 100% linen yarns as well as many of the new linen-blend and linen novelty yarns currently on the market. Choose the type of linen yarn to suit your fabric design and intended purpose.

- C.L. Blomqvist AB, Box 111, S-510 20 Fritsla, Sweden.
- 8/2 line linen at 1290 yd/lb. Halfbleached.
- 12/2 line linen at 1665 yd/lb for unbleached and 1935 for half-bleached.
- 16/2 line linen at 2220 yd/lb for unbleached and 2575 for half-bleached and dyed. 20 colors.
- 20/2 line linen at 2775 yd/lb for unbleached and 3220 for half-bleached.
- 28/2 line linen at 3885 yd/lb for unbleached and 4510 for half-bleached.
- 35/2 line linen at 4855 yd/lb for unbleached and 5635 for half-bleached.
- bleached and 5635 for half-bleached. 16/3 line linen at 1480 yd/lb. Unbleached.
- 8/2 linen rug warp at 1110 yd/lb. Unbleached.
- 8/3 linen rug warp at 740 yd/lb. Unbleached.
- 8/4 linen rug warp at 555 yd/lb. Unbleached.
- 8/5 linen rug warp at 445 yd/lb. Unbleached.
- 4.5 linen effect tow at 1240 yd/lb. Unbleached, half-bleached, dyed. 42 colors.
- 22/2 cotton/linen yarn at 3170 yd/lb. Unbleached, bleached, dyed. 61 colors.
- 8/1 wet-spun line at 2220 yd/lb for unbleached and 2575 for half-bleached.
- 12/1 wet-spun line at 3330 yd/lb for unbleached and 3865 for half-bleached.
- 16/1 wet-spun line at 4440 yd/lb for unbleached and 5155 for half-bleached and dyed. 44 colors.
- 20/1 wet-spun line at 5550 yd/lb for unbleached and 6440 for half-bleached.
- 28/1 wet-spun line at 7770 yd/lb for unbleached and 9020 for half-bleached.

- 6/1 wet-spun tow at 2080 yd/lb for unbleached and 2080 for half-bleached. 26 colors
- 8/1 wet-spun tow at 2220 yd/lb for unbleached and 2575 for half-bleached.
- 12/1 wet-spun tow at 3330 yd/lb for unbleached and 3865 for half-bleached.
- 16/1 wet-spun tow at 4440 yd/lb for unbleached and 5155 for half-bleached.
- 20/1 wet-spun tow at 5550 yd/lb for unbleached and 6440 for half-bleached.

Classic Elite Yarns, 12 Perkins Street, Lowell, Massachusetts 01854. (617) 453-2837. Wholesale only.

- Arizona Light, 80% rayon/20% linen at 1200 yd/lb. 12 colors.
- Memphis. 85% rayon/15% linen 2-ply. Two sizes: Memphis at 840 yd/lb and Memphis light at 1680 yd/lb. Both sizes are available in 16 colors as well as stenciled.
- Dakota. 80% cotton/20% linen at 1090 yd/lb. 8 colors.

Crystal Palace Yarns, 3006 San Pablo Avenue, Berkeley, California 94702. (415) 548-9988. Wholesale only.

- #51393.70% rayon/30% linen blend 2-ply at 2500 yd/lb. Natural only.
- #51839. 6/1 50% silk/50% linen blend at 3000 yd/lb. Natural only. 6/2 50% silk/50% linen blend at 1500 yd/lb. Natural only.
- #52128. 16/7 48% rayon/26% linen/26% tussah blend slub yarn at 4000 yd/lb. Natural only.
- City Linen. 35% cotton/35% rayon/30% linen, plied slub yarn at 1250 yd/lb. 25 colors.
- Linen Rustique. 55% cotton/45% linen plied slub at 1330 yd/lb. 30 colors.
- CK linen. 3-ply linen at 1600 yd/lb. 5 colors.
- 6/3 50% silk/50% linen blend at 1000 yd/lb. 15 colors.
- Jo. 80% cotton/20% linen blend at 850 yd/lb. Natural only.
- Pearl. 50% cotton/50% linen at 3200

yd/lb. Bleached, half-bleached, natural (colors—special order).

Eaton Yarns, c/o Craft Skellar, Marymount College, Tarrytown, New York 10591. (914) 631-1550. Retail.

- #4 dry-spun tow linen at 1345 yd/lb. 80 colors.
- #8 dry-spun tow linen at 2790 yd/lb. 80 colors.
- Aivina 30/2 line linen at 4080 yd/lb. Bleached and unbleached.
- #8 Purjelanka line linen rug warp at 950 yd/lb. Unbleached only.

Euroflax, Inc., P.O. Box 241, Rye, New York 10580. (914) 967-9342. Retail.

8/2 wet-spun linen at 1300 yd/lb. 16 colors. This company also has 30 colors of dyed flax roving for spinning.

Frederick J. Fawcett, 1304 Scott Street, Petaluma, California 94952. (707) 762-3362. Retail/wholesale.

- Boken's 16/1 wet-spun linen at 4950 for unbleached and 5500 yd/lb for dyed and half-bleached colors. 52 colors.
- Boken's 16/2 wet-spun linen at 2420 for unbleached and 2720 for half bleached and dyed colors. 52 colors.
- Boken's Effecto. 14/2 50% cotton/50% linen blend at 2080 yd/lb. Unbleached, bleached, 13 colors.
- Borg's Cottolin. 22/2 50% linen/50% cotton blend at 3170 yd/lb. Bleached, half-bleached, unbleached, 50 colors.
- 10/1 wet-spun line linen at 3000 yd/lb. Unbleached, cream, half-bleached.
- 14/1 wet-spun line linen at 4200 yd/lb. Cream, half-bleached, 9 colors.
- 20/1 wet-spun line linen at 6000 yd/lb. Unbleached, cream, half-bleached, 22 colors.
- 28/1 wet-spun line linen at 8400 yd/lb. Unbleached, cream, half-bleached.
- 10/2 wet-spun line linen at 1500 yd/lb. Unbleached, cream, half-bleached, 29 colors.
- 20/2 wet-spun line linen at 3000 yd/lb.

- Unbleached, cream, half-bleached, 30 colors.
- 28/2 wet-spun line linen at 4200 yd/lb. Unbleached, cream, half-bleached.
- 40/2 wet-spun line linen at 6000 yd/lb. Unbleached and bleached.
- 70/2 wet-spun line linen at 10,500 yd/lb. Unbleached and bleached.
- 1 1/2 lea dry-spun line linen at 450 yd/lb. Unbleached, cream, half-bleached, 13 colors.
- 8/1 dry-spun line linen at 2400 yd/lb. Half-bleached, 20 colors.
- 10/2 dry-spun line linen at 1350 yd/lb. Unbleached, cream, half-bleached, 29
- 10/5 dry-spun line linen at 540 yd/lb. Unbleached, cream, half-bleached, 30 colors.
- 4/1 tow at 1200 yd/lb. Unbleached and gray.
- 5/1 tow at 1500 yd/lb. Bleached and 21 colors.
- 8/1 tow at 4800 yd/lb. Half-bleached.
- 4/2 tow at 600 yd/lb. Gray.
- 5/2 tow at 750 yd/lb. Bleached and 24 colors.
- 16/3 wet-spun linen rug warp at 1570 yd/lb. Unbleached only.
- 8/2 wet-spun linen rug warp at 1320 yd/lb. Unbleached only.
- 8/3 wet-spun linen rug warp at 870 yd/lb. Unbleached only.
- 8/4 wet-spun linen rug warp at 580 yd/lb. Unbleached only.
- 8/5 wet-spun linen rug warp at 520 yd/lb. Unbleached only.
- 8/6 wet-spun linen rug warp at 410 yd/lb. Unbleached only.
- Frederick J. Fawcett has a wide variety of linen lace yarns in unbleached, half-bleached and bleached in 12 sizes (20/3, 35/2, 35/3, 40/2, 40/3, 50/2, 50/3, 60/2, 60/3, 80/2, 100/2, 120/2). 35/2 is also available in 10 colors.
- Gerald Whitaker, 12 Keefer Road, St. Catharines, Ontario L2N 7N9, Canada. (416) 937-1730. Wholesale only.
- 16/2 dry-spun line linen (Leven Linen) at 2400 yd/lb. 32 colors.
- 2k-5. 80% cotton/20% linen bouclé at 840 yd/lb. Natural only.
- 2k-6.77% cotton/23% linen bouclé at 1570 yd/lb. Natural only.
- 2k-7. 60% cotton / 40% linen at 560 yd / lb. Natural only.
- 2k-8.86% cotton/14% linen at 1750 yd/lb. Natural only.
- 2E-1. 10/1 dry-spun tow at 3000 yd/lb. Unbleached only.
- 2E-2. 10/2 dry-spun tow at 1500 yd/lb. Unbleached.

- 2E-4. 10/2 dry-spun tow at 1600 yd/lb. Bleached.
- 2E-5. 10/4 dry-spun tow at 750 yd/lb. Unbleached.
- 2E-6. 5 1/2/2 47% cotton/53% linen at 1500 yd/lb. Natural only.

Grandor Industries, 716 East Valley Parkway, Unit 48, Escondido, California 92025. (619) 743-2345. Wholesale only.

- Y1.50% linen/50% cotton novelty 2-ply at 1200 yd/lb. Natural only.
- Y2. linen knop at 675 yd/lb. Natural only. Y3. 50% linen/50% cotton slub at 1250 yd/lb. Natural only.
- Y5. 80% cotton/20% linen novelty slub at 800 vd/lb
- 8/6 wet-spun line linen rug warp at 400 yd/lb. Unbleached.
- 10/6 wet-spun line linen rug warp at 500 yd/lb. Unbleached.
- 8/3 wet-spun line linen rug warp at 800 yd/lb. Unbleached.
- 12/3 wet-spun line linen rug warp at 1200 yd/lb. Unbleached.
- 16/3 wet-spun line linen rug warp at 1600 yd/lb. Unbleached.

Halcyon Yarn, 12 School Street, Bath, Maine 04530. (207) 442-7909. Retail.

- Newport Linen. 16/2 dry-spun line linen at 2400 vd/lb. 32 colors.
- 10/2 dry-spun line linen at 1360 yd/lb. 28 colors.
- 20/2 wet-spun line linen at 3000 yd/lb. Bleached and unbleached.
- 8/2 wet-spun linen linen rug warp at 1200 yd/lb. Unbleached only.
- 8/3 wet-spun line linen rug wrap at 800 yd/lb. Unbleached only.
- 8/4 wet-spun line linen rug warp at 600 yd/lb. Unbleached only.
- 8/5 wet-spun line linen rug warp at 480 yd/lb. Unbleached only.
- 8/6 wet-spun line linen rug warp at 364 yd/lb. Unbleached only.
- 10/4 wet-spun line linen rug warp at 736 yd/lb. Unbleached only
- Linray. 30% linen/70% rayon blend at 1200 yd/lb. 36 colors.
- Cot'n 'n Linen Knoppy Bouclé. 77% cotton/23% linen blend at 1575 yd/lb. Natural only.
- Slubby Cot'n 'n Linen. 80% cotton/20% linen blend at 850 yd/lb. Natural only.
- Cotton 'n Linen Nubby Bouclé. 66% cotton/34% linen blend at 675 yd/lb. Natural only.

Handcraft Wools Limited, Box 378, Streetsville, Ontario L5M 2B9, Canada. (416) 826-2059. Retail.

#48. 10/2 tow linen at 1400 yd/lb. Un-

- bleached and bleached only.
- #48. 10/4 tow linen at 800 yd/lb. Unbleached only.
- #53. 2/5 53% linen/47% cotton blend at 1550 yd/lb. Natural only.
- #85. 60% cotton/40% linen crepe at 625 yd/lb. Natural only.
- #1112. 16/2 dry-spun line linen at 2400 yd/lb. 33 colors.

HeirLoom Linens...and other strands, General Delivery, Kirkfield, Ontario K0M 2B0, Canada. (705) 438-3939. Retail.

- 44/2 wet-spun line linen at 6600 yd/lb. Cream only.
- 40/2 wet-spun line linen at 6000 yd/lb. Bleached only.
- 33/2 wet-spun line linen at 4950 yd/lb. Water-retted. Unbleached, cream, and bleached.
- 33/1 wet-spun line linen at 9900 yd/lb. Water-retted. Unbleached, cream, and bleached.
- 22/2 wet-spun line linen at 3300 yd/lb. Dew-retted. Unbleached, cream, and bleached.
- 22/1 wet-spun line linen at 6600 yd/lb. Water-retted. Unbleached, cream and bleached.
- 12/1 wet-spun line linen at 3600 yd/lb. Dew-retted. Unbleached.

Henry's Attic, 5 Mercury Avenue, Monroe, New York 10950. (914) 783-3930. Wholesale only.

- Irish Lace. 80% cotton/20% linen bouclé at 720 yd/lb. Natural only.
- Normandy Linen. 4-ply wet-spun line linen at 1200 yd/lb. Bleached.
- Normandy Linen. 3-ply wet-spun line linen at 3000 yd/lb. Unbleached.
- Normandy Linen. 16/6 wet-spun line linen at 800 yd/lb. Unbleached and bleached.
- 65% cotton/35% linen blend at 1600 yd/lb. Unbleached.
- 30/1 wet-spun line linen at 9000 yd/lb. Unbleached.

Maurice Brassard & Fils, Inc., 1972 Avenue Simoneau C.P. 4, Plessisville, Quebec G6L 2Y6, Canada. (819) 362-2408. Retail.

- 10/1 dry-spun tow linen at 3000 yd/lb. Bleached, unbleached, 7 colors.
- 5/1 dry-spun tow linen at 1500 yd/lb. Unbleached only.
- 12/1 dry-spun tow linen at 3600 yd/lb. Unbleached and bleached.
- 80% linen/20% cotton blend 2-ply at 2850 yd/lb. Unbleached and bleached.
- 70% linen/30% cotton blend 2-ply at 2075 yd/lb. Unbleached, bleached, 7 colors. 30% linen/70% viscose slub at 3500

yd/lb. Natural only.

Robin and Russ Handweavers, 533 N. Adams Street, McMinnville, Oregon 97128. (503) 472-5760. Retail.

16/2 ramie at 2400 yd/lb. 25 colors.

10/2 Irish Barbour linen at 1500 yd/lb. Bleached and unbleached.

20/2 Irish Barbour linen at 3000 yd/lb. Bleached and unbleached.

40/2 Irish Barbour linen at 6000 yd/lb. Bleached and unbleached.

16/1 wet-spun line linen at 4950 yd/lb. 40 colors.

16/2 wet-spun line linen at 2420 yd/lb. 40 colors.

Robin and Russ Handweavers also carries bobbin lace linens (sizes 35/2, 40/2, 50/2, 60/2, 70/2, 80/2, 90/2, 100/2, 120/2 in bleached or unbleached). The company also carries odd-lot yarns, linen yarns among them. Inquire about current yarns.

Schoolhouse Yarns, 25495 S.E. Hoffmeister Road, Boring, Oregon 97009. (503) 658-3470. Retail.

#4 dry-spun tow linen at 1460 yd/lb. Halfbleached, fourth-bleached, unbleached, 77 colors.

#8 dry-spun tow at 3000 yd/lb. Halfbleached, fourth-bleached, unbleached, 77 colors.

#12 dry-spun tow at 2500 yd/lb. Unbleached and bleached.

#12 wet-spun line linen at 2500/lb. Unbleached and bleached.

30/2 wet-spun line linen at 4256 yd/lb. Unbleached, bleached, 3 colors.

8/3 dry-spun tow sail linen rug warp at 770 yd/lb.

#16 wet-spun line linen at 4600 yd/lb. Bleached and unbleached.

#20 wet-spun line linen at 5400 yd/lb. Bleached and unbleached.

2.5 Sini linen single at 640 yd/lb. Bleached and 7 colors.

School Products, 1201 Broadway, New York, New York 10001. (212) 679-3516. Wholesale/ retail.

8/2 wet-spun line linen rug warp at 1200 yd/lb. Unbleached only.

8/3 wet-spun line linen rug warp at 800 yd/lb. Unbleached only.

8/4 wet-spun line linen rug warp at 600 yd/lb. Unbleached only.

8/5 wet-spun line linen rug warp at 480 yd/lb. Unbleached only.

8/6 wet-spun line linen rug warp at 364 yd/lb. Unbleached only.

10/6 wet-spun line linen rug warp at 500 yd/lb. Unbleached only.

16/3 wet-spun line linen rug warp at 1600 yd/lb. Unbleached only.

18/4 waxed linen at 1500 yd/lb. 10 colors.

Scott's Woolen Mill, Inc., 528 Jefferson Avenue, P.O. Box 1204, Bristol, Pennsylvania 19007. (215) 788-2328. Wholesale only. Linnay. 50% linen/50% rayon at 1200

yd/lb. 29 colors.

Silk City Fibers, 155 Oxford Street, Paterson, New Jersey 07522. (201) 942-1100. Wholesale only.

French Linen. 7.2/2 60% cotton/40% linen novelty snarl yarn at 3000 yd/lb. Natural only.

Montego. 75% cotton/25% linen. 2-ply slub novelty at 1400 yd/lb. 27 colors.

Skacel Collection, 19309 West Valley Hwy. Suite R-106, Kent, Washington 98032. (206) 251-6660. Wholesale/retail.

Linen braid at 650 yd/lb. 6 colors.

Savannah. 43% acrylic/40% linen/10% cotton/10% viscose novelty yarn at 1300 yd/lb. 7 colors.

Tropic. 50% linen/50% acrylic 5-ply at 850 yd/lb. 20 colors.

Iskia. 78% acrylic/10% linen/6% polyester/6% nylon novelty at 1120 yd/lb. 10 colors.

Treenway Crafts Ltd., 725 Caledonia Avenue, Victoria, British Columbia V8T 1E4, Canada. (604) 383-1661. Retail.

22/2 cottolin at 2950 yd/lb. 40 colors.

The Wool Gallery, Berga Yarns, 459 High S.E., Salem, Oregon 97301. (503) 363-9665. Retail.

Linbogarn. 22/2 60% cotton/40% linen blend at 1750 yd/lb. Unbleached plus 82 colors.

Lingarn. 16/1 wet-spun line linen. 5000 yd/lb for unbleached and 5500 yd/lb for dyed. 51 colors.

Lingarn. 16/2 wet-spun line linen. 2435 yd/lb for unbleached and 2715 yd/lb for dyed. 50 colors.

Linen Mattwarp. 8/3 linen rug warp, boiled and unbleached. 830 yd/lb.

#6 wet-spun tow linen. 1855 yd/lb for unbleached and 2080 yd/lb for dyed. 30 colors.

Further Reading

Atton, Mavis. Flax Culture. Owen Sound Ontario: The Ginger Press. The Ginger Press, 848 Second Avenue East, Owen Sound, Ontario N4K 2H3. 1989. This soon-to-be-released book provides excellent instruction on growing and processing your own flax. Also included are spinning techniques.

Becker, John. Pattern and Loom. Copenhagen: Rhodos International Publisher. Distributed in the U.S. by Interweave Press, Inc. 1987. This book does not discuss linen specifically, but it is an excellent resource for weaves commonly woven in linen. The damask section is especially useful.

Channing, Marion L. and Walter E. *The Textile Tools of Colonial Homes*. Marion, Massachusetts: The Channings, P.O. Box 552 Marion, Massachusetts 02738. 1971. Brief descriptions and drawings of flax processing tools are provided.

Condit, Joan. "Weaving with Linen", Handweaver and Craftsman, Volume 6, #3, page 46. Discusses types of linens and uses for the different styles.

Fiberarts magazine, Volume 14, Number 2.
Theme issue, "Working with Linen & Bast Fibers". Included are articles on artists working in linen, history of linen, kudzu, linen undergarments and linen lore.

Gallagher, Constance D.N. Linen Heirlooms. Newton Centre, Massachusetts: Charles T. Branford Company. 1968. Presents a historical overview of the weaving of linen in early American life. A collection of drafts and photos of traditional fabrics analyzed by the author are included.

Gordon, Beverly. Shaker Textile Arts. Hanover, New Hampshire: University Press of New England with the cooperation of the Merrimack Valley Textile Museum and Shaker Community, Inc. 1980. A historical look at the various textile techniques used by the Shakers. Includes some drafts and photographs of original linens.

Mattera, Joanne. "A History of Linen". Shuttle, Spindle & Dyepot, Volume 8, Number 3, page 16. An informative article about the history of linen, the growing and processing of flax, and different methods for spinning flax and the types of linen produced.

The Weaver's Journal. Volume VII, Number 2. This special issue on linen includes articles on flax processing, dressing a distaff for spinning, line flax spinning, a glossary of terms, as well as linen projects and helpful hints.

West, Virginia M. Finishing Touches for the Handweaver, Revised Edition. Loveland, Colorado: Interweave Press, Inc. 1988. A compendium of ideas for finishing linens.

Linen Gallery

This outstanding collection of linen designs from some of our HANDWOVEN readers makes you want to explore the possibilities this special fiber offers. Let the beauty of these examples inspire and challenge you to attain new heights in your own weaving.

Basket Square by Linda Heinrich of Victoria, British Columbia





I've been weaving for 17 years and have devoted the past 10 years to research on linen, to the extent that I even grow my own flax.

From 1979 to 1986 I worked through the four stages of the certification program offered by the Guild of Canadian Weavers: Basic, Intermediate, Senior, and Master Weaver levels. To attain Master Weaver certification, I chose an indepth study of flax and linen.

Since 1984, I have been teaching workshops and seminars throughout British Columbia and in Idaho. I

have been invited to teach at the 14th biennial Northwest Weavers' Conference to be held in Boise, Idaho, this July. I am currently writing a book for handweavers about flax and linen, with an emphasis on weaving this lovely fiber.

About the piece

Linda wove this basket square for the teachers' show at the 1987 Northwest Weavers' Conference in Vancouver. The pattern required eight shafts, four for the plain weave center and an additional four for the twill borders. (Linda weighted the back four shafts separately to compensate for the differ-

ences in take-up between the plain weave and twill sections.) Although this design appears deceptively simple, a great deal of skill and experience went into the weaving. So that the corners would match exactly, Linda had to weave the fabric exactly square, carefully balancing the weave so that the embroidery would be even.

For this elegant piece, Linda chose 20/1 line linen, set at 15 e.p.i. for the twill borders and 30 e.p.i. for the plain weave center. After washing the fabric, she used pale embroidery cotton in a half cross stitch to grace the corners of the cloth and give it a special refined touch.

Table Runner by M. Kati Meek of Kalamazoo, Michigan





I started weaving in the late 1960s when I realized that it was something that I'd wanted to do all my life—and a serious illness had

reminded me that I wouldn't live forever. Mary Black was my chief instructor, via her *New Key to Weaving*. I enjoy the machinery and mechanics of weaving, the architecture of fabric structure, and the rhythmic activity of weaving cloth. Rather like dancing, weaving involves

some of the mind and all of the body. I take pleasure in the tangible accomplishment of creating an item of use and beauty.

I love working with linen. It is the most malleable of fibers and is responsive to the weaver's hand. While some discipline is necessary in dressing the loom and weaving, linen is ideal for woven laces such as Bronson lace, in that the "holes" open distinctly.

In addition, since linen does not full when laundered, the weave structure remains well-defined. Linen retains its dignity as it ages.

About the piece

Kati chose fine bleached linen for this delicate open-weave runner in lace Bronson. The warp is 50/3 and 40/2 linen (i.e., line linen), the weft is 50/3 linen. She set the piece at 30 e.p.i., sleying two ends per dent in a 15-dent reed. Twelve shafts are required to create this intricate and interesting pattern. The draft for this runner was adapted from a pattern in *Lace and Lacey Weavers*, by Mary Snyder.

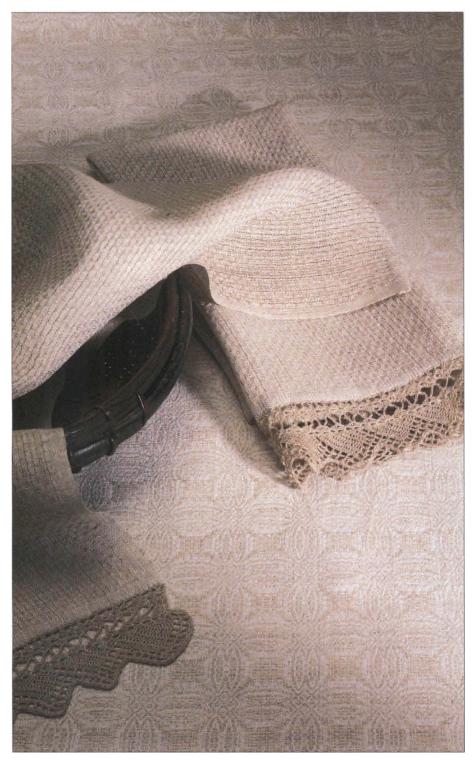


Table Runner by Frances F. Timbers of Kirkfield, Ontario

Linen Gallery_



The first time I set my eyes on a loom, I knew I wanted to weave. I bought my first loom at the age of 20

while taking an introductory weaving course. Husbands, babies, and career interrupted my weaving time during the succeeding years. While living in Vancouver, British Columbia, I became a member of the local guild and discovered the Master Weaver program offered through the Guild of Canadian Weavers. That was the spark which took weaving from a hobby to the focus of my life.

It was while I was working on the intermediate level of the Master Weaver program that I fell madly in love with linen. I also discovered that good quality linen yarn was difficult to obtain in Canada, and expensive as well. I said to myself, why can't I import yarn from Ireland? So my business, HeirLoom Linens...and Other Strands, was born.

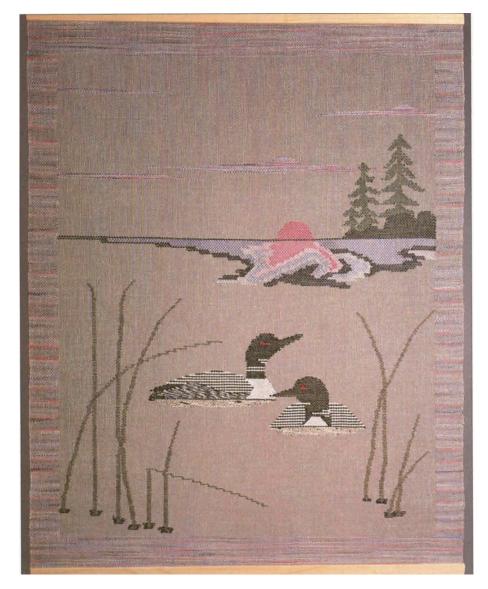
I find linen challenging and beautiful—the more difficult, the more rewarding.

About the piece

The tablecloth shown here was inspired by one Frances saw in Dorothy Burnham's *Keep Me Warm One Night*. Frances set a 40/2 bleached linen warp at 46 e.p.i. and crossed it with a 33/1 bleached linen tabby weft and 25/1 natural wet-spun pattern weft.

Inspired by commercial huck toweling, Frances wove the huck guest towels as a tribute to her grandmother. She used 40/2 bleached linen warp set at 36 e.p.i. and wove with a 22/1 natural linen weft. An elegant finishing touch, the hand-crafted scalloped trim is worked in the same 22/1 linen yarn.

Transparency by Marg Janick-Grayston of Alameda, Saskatchewan





I have been fascinated with weaving for many years, and I'd dreamed of someday being able to try it. After taking

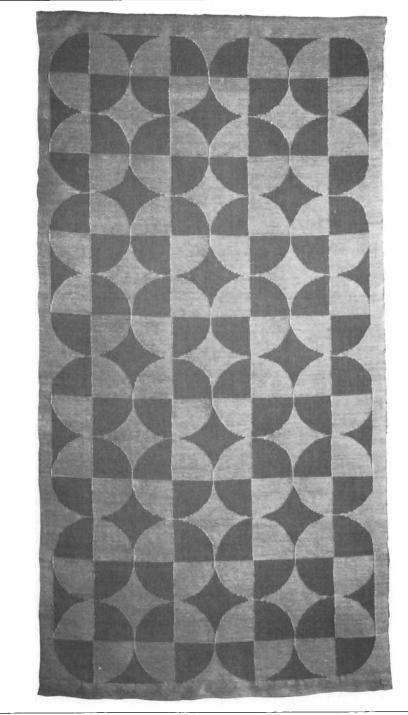
a few warping lessons from a friend, I investigated the possibilities of weaving, finally deciding to purchase a loom. That was one and a half years ago. Since then I have woven two plaid baby blankets and five transparencies. (Time is limited with two children ages 1½ and 3½ and a job as a recreational therapist.) However, it's important to me to find a few minutes each day to weave, and this is made possible by my supportive husband.

What I've discovered in my short time weaving:

- 1. Don't let fear stand in the way of experimenting with new fibers, techniques and designs.
- 2. It's okay to make mistakes—that's how I've gained insights and have learned to solve problems.
- 3. It's extremely important to have perfectly even tension when weaving with linen, for linen is very unforgiving. Otherwise, warp strands will break, edges will be uneven, weft strands will be crooked, and the finished project will not be square.
- 4. I must create my own designs to thoroughly enjoy weaving.

About the piece

This transparency, entitled "The Call of Silence", took me 24 hours to weave (not including design time). I set 21/1 natural linen at 12 e.p.i. For pattern inlay I used a variety of rayon, acrylic, and cotton yarns. I sold the first piece of this design before knowing that it would be requested for publication in HANDWOVEN. In order to prepare this second hanging, I managed to weave in a long weekend what normally takes me 30 days. Just think what I could accomplish if I worked under a deadline all the time!



Hanging in Transparency by Betty Gaudy of Cottonwood, Arizona

Linen Gallery.



I learned to weave from my mother-inlaw, Grace Gaudy, in Washington State. After I moved to

Arizona and my children were in college, I dropped some of my volunteer activities to study weaving more seriously.

I still do my share of volunteer work. For example, in the early 1970s I started the Verde Valley Handweavers' Guild and held office and committee positions. Later, I helped organize both the Arizona Federation of Weavers and Spinners (of which I served four years as president) and the first Intermountain Weavers' Conference.

I have enjoyed teaching workshops and seminars around the country. In 1980 I was awarded the Certificate of Excellence in Handweaving sponsored by the Handweavers Guild of America.

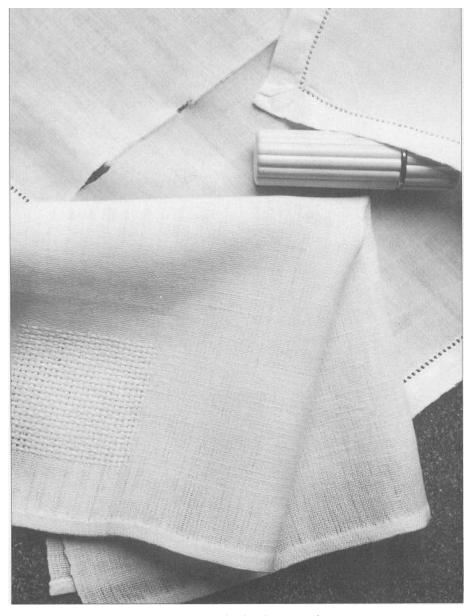
Linen has always been my favorite fiber to weave. It is particularly nice for laces and household fabrics. Linen's rigidity makes it an excellent choice for transparencies.

About the piece

The optical illusions created by this design delight the eye each time you look at this hanging, which demonstrates effective use of a monochromatic color scheme. Betty set 20/2 natural Irish linen at 16 e.p.i. for the warp and used the same yarn for the tabby weft. For this plain weave piece, the pattern yarn was laid in the same shed as the previous background weft. A careful beat maintained a balanced weave in the background yarn. The pattern inlay, which effectively frames the work, helped assure an even beat.

Betty weaves her transparencies "right side up", using a muslin cartoon pinned to the weaving. She attaches the top of her cartoon to a thin slat which she tapes to her beater bar.

Two Hankies "Tell All"



Top, Donna's well-worn hanky, and bottom, her handwoven replacement.

CARING FOR LINEN

by Donna Muller

THIRTY YEARS AGO I bought a dozen hankies. They were simple, handsome, practical plain weave linen with half-inch hems, fagoting and mitered corners. These hankies served me well for those 30 years, surviving babies and ball point pens as well as New England seasonal sniffles.

It's amazing that these hankies lasted so long, considering the abuse they suffered from my unrelenting harsh treatment of them (wrong according to all rules for linen care). I machine washed them (often with chlorine bleach) and diligently ironed my hankies into tidy folded and pressed quarters, storing them this way in my bureau.

About a year ago, the first signs of wear appeared. Threads began to give way, tracing exactly the folds I habitually ironed in. Then the wear accelerated, and my ever-serviceable hankies began falling apart en masse.

Linen is wonderful stuff, and it might be said that 30 years is worthy service enough. But I hope this ordinary object can serve in one more way: as an object lesson on the results of pressing folds into linen. The moral is, if you're dealing with an heirloom-quality piece or an antique, don't press in folds. Store linens flat, or roll important pieces on tubes or hang them over dowels.

There is a happy ending to this story. When I counted up the years and realized how long these store-bought hankies had served and pleased me, I decided to hand-weave some replacements. The result was a very satisfying project in 70/2 linen with canvas weave lace areas in the corners.

Donna Muller lives and weaves in Amherst, Massachusetts. She's currently writing a book for Interweave Press on lace weaves, to be released in the spring of 1990.

A VERY FINE LINEN PROJECT

by Karen Evanson

I wanted to weave a thank you gift for my boss and employer Linda Ligon, and I decided on this project because Linda had once mentioned that she thought it would be so nice to have a handwoven hanky to carry around in her pocket.

I'd woven with linen twice before I launched into this project but in only one project had I used a linen warp. Certainly, I'd never woven with such fine yarn: 24 e.p.i. had been my finest sett.

Where to begin? I couldn't find much literature on weaving such fine threads, so I just jumped in and proceeded by trial and error. For yarn (really, you could call it thread because it was so fine) I chose a 100/2 bleached line linen from Glimåkra Looms 'n Yarns. I set my hanky sample at 96 e.p.i., eight ends per dent in a 12-dent reed. The threading was plain weave.

What I learned:

- When working with so many threads, be sure that you have enough heddles on each shaft. Count to make sure before you begin. (I didn't and had to transfer heddles from one shaft to the next after I'd begun threading.)
- Since I'd always threaded front to back, this is what I did with this project. Although I had no tension problems or warp breakage, I did have a horrendous problem of the cut ends curling, taking the form of the tube they'd been wound around. Warping back to front might alleviate this problem because I could then cut the ends a few at a time as I threaded and sleyed.
- The sett was too close, making a warp-emphasis fabric that was somewhat ribbed in appearance and feel.



 My fabric had reed marks that did not wash out after many launderings—I'd threaded too many ends in each dent. In other words, my reed was too coarse.

My next attempt is the hanky you see pictured here. This time my warp sett was 70 e.p.i., sleyed 3,4,3,4 in a 20-dent reed (202 heddles per shaft). During weaving I had no problems with tension or broken threads though I did have two threads threaded together. Pulling one out before washing solved this problem. I didn't find it necessary to spray my warp with water during weaving.

One thing I liked about working on this project was the feel of the unwoven warp on the loom. Because the threads were so fine, they felt like fabric itself, smooth and silky. Achieving straight, even selvedges, to my surprise and pleasure, was no problem. I used the tube of thread as the bobbin in my shuttle, and found that on this narrow (11½") fabric, that it worked just fine.

After weaving, I washed the fabric, placed it in a plastic bag and put it in the freezer. There it stayed

for several months while I was occupied with other things. After removing the fabric from the freezer and thawing it, it still seemed stiff. I then washed and ironed it 10 to 12 times, until I felt that it was supple enough for a tender nose.

I had wanted to make a rolled hem on this hanky, but I wasn't successful (if anyone has ideas about this, let me know, as I'd like to try it sometime). Instead, I made a double-folded hem (though I hated hiding the selvedges I was so proud of), and stitched it down with tiny stitches.

Because this was a very plain fabric, I wanted to give it a fairly fancy edge treatment. Again, trial and error was the modus operandi. I tried using a blanket stitch along the edge as a base for my crochet but I didn't like how this looked. Instead I chained along the edge, sticking my crochet hook through the fabric every four threads. This was tedious work, hard on the eyes and hands. However, it suited my purpose. I then crocheted as follows: two rows single crochet worked one on top of the other. Third row: chain 3, dc in each space, slip st to join. Fourth row: chain 3 and work shell stitch in each space. Slip stitch to join.

The hanky lay finished on my dresser for several weeks before I gave it away, and the more I looked at it, the more charm and character I felt it had. The fabric has a texture and hand that no machine could create, and I like the contrast the folksylooking lace gives this very plain fabric. Though this project held more challenges than I had anticipated, I felt great satisfaction for having completed this fine thread project. ❖

Karen Evanson is office manager extraordinaire at Interweave Press.

If you've never woven with linen because of all the "horror" stories you've heard about working with it, the two projects on the opposite page and the one on the following page will get you off to a good start.

Three Easy Linen Projects

Simple Lace Mat

by Jane Patrick

If you are truly a novice, start with our rigid heddle mat (I wove this design on both my floor loom and my rigid heddle loom). The yarn is from Euroflax, an 8/2 wetspun linen that I found delightful to work with. It caused me absolutely no problems. The warp is set at 12 e.p.i. (sleyed one end per dent in a 12-dent rigid heddle or one end per dent in a 12-dent reed on my floor loom).

The weave is a pick-up lace (a draft is given for shaft weaving). When I removed my first piece from the loom, I found that I had made numerous pick-up errors. I hadn't seen these errors as I was weaving, perhaps because I was working in poor light. That the lace design was somewhat obscured until the mat was washed made seeing what I was doing doubly hard. Do YOURself a favor and work in good, strong light.

If you've never tried pick-up on your rigid heddle loom, I think you'll find this straightforward design easy to tackle. Once you've got the hang of it, look to simple cross-stitch patterns or at multishaft loom patterns for more elaborate design ideas. You can get quite intricate patterns picking up the lace sheds on a rigid heddle (and this is why pick-up lace is ideal for the rigid heddle)—this very simple design requires eight shafts on the shaft loom.

Pointers:

 Linen has little elasticty and must be wound, warped, and woven evenly—it is unforgiving of inequalities in tension. Begin by winding an even warp. I made mine on my warping reel (rather than a warping board) and was careful not to overlap the threads.

- When warping my rigid heddle, I didn't cut the ends at the cross end, but rather threaded the loops in order through the slots. I then hung these loops over a dowel in order and lashed this dowel to the back apron rod. I then wound on, cut the loops at the front end of the chain and threaded one end from the slot into the adjacent hole. I tied onto the front using the lashing method (it's kinder to your fingers and achieving even warp tension seems easier).
- On my floor loom, I warped front to back (sleying the reed, threading the heddles, and winding on), and I had no tension problems. However, most of the resources I read when preparing this issue strongly recommended winding on first before threading and sleying because this method creates less wear and tear on the yarn. Although my method worked well for this relatively heavy plied yarn, it might not be as successful with a very fine count singles.
- I didn't find it necessary to wet my warp, and I had no breakage. In winding my warp, though, I made sure there were no knots in the warp. If you find a knot as you are winding, just go back to the beginning of that bout and tie on. Do likewise with knots in your weft.
- When ending and beginning

wefts, I reduced bulk by untwisting the ends for a couple of inches and cutting off one end of the ply. I then overlapped the remaining strands.

Simple Plaid Placemats

by Andrea Green

I chose two shades of analogous colors for this bright, yet simple, plaid fabric. The yarn is a #8 tow linen which I set at 20 e.p.i., two ends per dent in a 10-dent reed (I doubled the selvedges and separately weighted them to help maintain neat edges). While a tow singles is fairly fuzzy and not as strong as a plied yarn, I had no problems using this yarn for warp. (If you have had little or no experience in weaving linen, you could substitute a 16/2 linen at the same sett). I did spray my warp with water every time I advanced the warp to alleviate the possibility of a sticky shed. At times, I found it necessary to spritz the weft on the bobbin to keep it from being wiry.

I washed and ironed the fabric as a whole before cutting the mats apart. Before washing I machine stitched the ends of the fabric, then machine washed the length in hot water with a cold rinse, using liquid detergent (such as Ivory or Lux Liquid). I rolled up the wet fabric, placed it in a plastic bag, and froze it overnight. The next day I thawed the fabric, then plunged it alternately into boiling and cold water several times. (The temperature shock softens the fibers, making the linen supple.) I then line dried, dampened, and pressed it with a hot iron.



#1 Simple Lace Mat

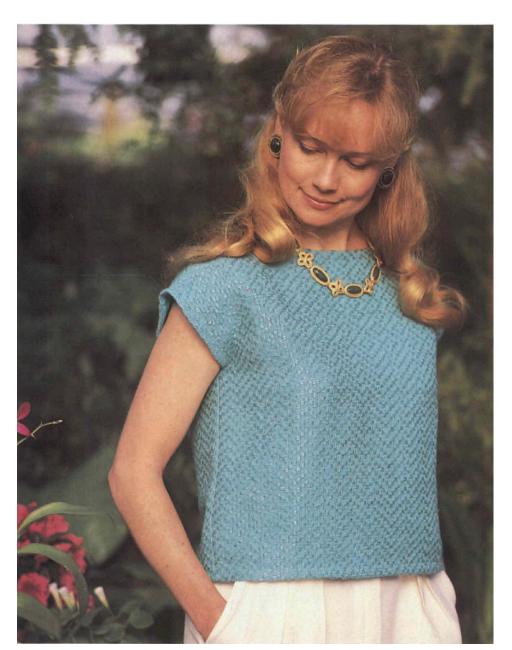
This mat is ideal for weaving on a rigid heddle loom using a pick-up stick for the lace patterning (we also wove this on an eight-shaft floor loom). You'll love the feel and the way this 8/2 linen weaves up. While we've shown a small square mat here, this design could be easily lengthened for a runner or placemats. Please see the Instruction Supplement for weaving details.

Yarn courtesy of Euroflax.

#2 Simple Plaid Placemats

Enjoy mixing colors as you weave this plain weave plaid mat by Andrea Green. An 8/1 tow linen used for warp and weft gives a textured, rugged look. This yarn (as well as 16/2 which can be substituted) is available in many colors, making it possible to pick and choose a color scheme to match your interior decor. For more about these Simple Plaid Placemats, please see the Instruction Supplement.





#3 Barley Corn Blouse

by Jean Scorgie

This project combines cotton and linen with very good results. The warp and tabby weft are an unmercerized 12/2 cotton at 4700 yd/lb, which makes for pleasurable weaving. I was delighted with the sheen and texture of the lustrous Finnish singles linen that I used for the decorative floats of this barley corn weave (spot Bronson). This fabric is easy to care for by machine laundering, with a light steam pressing to bring out the shine of the floats.

I adapted the garment shape from the pattern #101, "Simple Tops", in the HANDWOVEN *Designer Pattern* series, omitting the sleeves and shortening the body slightly for a summery look.

Caution: watch carefully as you weave, because mistakes will show up in the finished piece.

For more about Jean's **Barley Corn Blouse** please see the Instruction Supplement.

Yarns courtesy of Schoolhouse Yarns.



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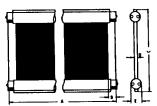


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HANDWOVEN 71 March/April 1989

GENERAL INSTRUCTIONS

Volume X, Number 2 March/April 1989

Please read the instructions thoroughly before beginning a project. Refer to the General Instructions, basic weaving books and other projects in this issue for further information. The instructions assume that you have basic weaving knowledge, can warp a loom, and can understand drafts. Symbols are used in each project heading showing loom requirements and techniques needed for each project.

R Rigid heddle loom.

The number in the symbol denotes the number of shafts (harnesses) needed.

WARP & WEFT: The size, fiber and type of each yarn is listed along with the yardage per pound. If a specific brand has been used, it is listed with color names and numbers. Amounts needed are calculated in yards, making yarn substitutions easier.

REED SUBSTITUTIONS: Maintaining the number of ends per inch is very important to obtaining the same weight and hand of the project shown. Most fabrics are sleyed one or two ends per dent, but sometimes a particular dent reed is used for a certain effect or to accommodate large or textured yarns.

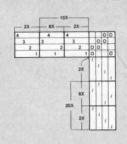
WARP LENGTH: The length of the warp needed for a project is figured by adding the finished length of the project, an allowance for take-up and shrinkage, and loom waste. Take-up is the amount lost due to the interlacement of the yarns in the weave structure. Shrinkage is the amount lost due to the finishing process. Loom waste is the amount needed to tie the warp on and allow the reed and heddles of a particular loom to function to the end of the weaving.

Our warp length measurements include finished length, percentage of take-up and shrinkage, and a standardized loom waste of 27". Your own loom waste may be different, according to the requirements of your loom and warping technique. To figure loom waste, measure unwoven warp at the beginning and end of several of your projects. Be sure to allow for knot tying and trimming of ends.

MEASUREMENTS: All measurements shown in the Weave Plans and discussed in the directions are taken *under tension on the loom* unless otherwise noted. Each measurement includes take-up and shrinkage so that when the piece is fin-

ished, the final size will be correct. Normal warp tension is tight enough to get a clear shed. Exceptions, such as weft-faced rugs and tapestries which require more tension, will be noted.

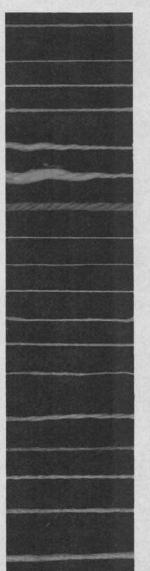
DRAFTS: Threading drafts read from right to left and treadling drafts read from top to bottom. *Threading repeats* are shown by brackets. Sometimes double brackets are used to show a small repeat within a larger one. *Tie-ups* are shown for rising-



shed or jack looms. The small circle in the tieup indicates that the shaft referred to rises when the treadle is pressed. To convert the tieup for sinking

shed or counterbalanced looms, tie the

Yarn Chart. To help identify yarns and make creative substitutions in your weaving, use this yarn chart along with *Yarn*, a *Resource Guide for Handweavers* by Celia Quinn, available from Interweave Press.



6/1 wool at 3000 yd/lb (6040 m/kg)

20/2 cotton at 7940 yd/lb (16,000 m/kg)

12/2 cotton at 4700 yd/lb (9500 m/kg)

8/2 cotton at 3600 yd/lb (7250 m/kg)

Cotton flake yarn at 3600 yd/lb (7250 m/kg)

Cotton flake yarn at 1500 yd/lb (3020 m/kg)

4-ply cotton at 800 yd/lb (1620 m/kg)

40/2 linen at 6000 yd/lb (12,090 m/kg)

20/1 wet-spun linen at 6000 yd/lb (12,090 m/kg)

16/1 wet-spun linen at 4800-5350 yd/lb (9670-10,800 m/kg)

12/1 tow linen at 3620-4460 yd/lb (7300-9000 m/kg)

20/2 linen at 3000 yd/lb (6040 m/kg)

8/1 tow linen at 2970-3000 yd/lb (5980-6040 m/kg)

16/2 dry-spun line linen at 2400 yd/lb (4830 m/kg)

4/1 tow linen at 1460-1500 yd/lb (2940-3020 m/kg)

8/2 wet-spun linen at 1300 yd/lb (2620 m/kg)

12/3 linen at 1200 yd/lb (2420 m/kg)

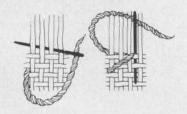
Single-ply linen at 750 yd/lb (1500 m/kg)

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treadles according to the *blank* squares. Countermarch looms use all the squares; the upper lamms are tied to the blank squares and the lower lamms are tied to the squares with circles.

YARN YARDAGE NOTES: Yarns sometimes differ from standard vardages. Such factors as humidity, dyes and bleaches, and even the age of the spinning equipment, can affect the weight and length of a yarn. You'll notice in the instructions that sometimes the standard yardage and the supplier's stated yardage differ. For example, the standard yardage for 5/2 mercerized cotton is 2100 vd/lb, but the supplier may list the varn at 2000 yd/lb, taking into consideration some of the factors above. This yardage difference is especially important to keep in mind when ordering yarn, so that adequate amounts can be ordered.

HEMSTITCHING may be done at the beginning and end of a piece of weaving to secure the weft.



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Index to Instructions

Simple Lace Mat

by Jane Patrick page 69

RH &

FABRIC DESCRIPTION: Plain weave and lace.

FINISHED DIMENSIONS: 12½" × 12½". WARP: 8/2 wet-spun linen at 1300 yd/lb: pale blue (190 yards for rigid heddle; 240 yards for shaft loom).

WEFT: 8/2 wet-spun linen at 1300 yd/lb: 100 yards of lavender.

YARN SOURCES: Euroflax 8/2 linen, 1 skein each of #013 Ice Blue and #009 Parma (325 yd/4-oz skein).

NOTIONS: 30 yards of weft-colored fine linen (16/1 or similar) for weaving hems. E.P.I.: 12.

WIDTH IN REED: 141/4". TOTAL WARP ENDS: 170.

WARP LENGTH: For one mat you'll need a 1-yard-long warp when weaving on a rigid heddle loom (which includes 18" for take-up and loom waste); for a floor loom you'll need a 1¼-yard-long warp (which includes 28" for take-up and loom waste). If you want to weave more than one square mat, add ½ yard of warp length for each additional mat. You could also lengthen the warp (and the design) for placemats or runners.

DRAFT: For rigid heddle, thread slot, hole, slot, hole. See the draft for floor loom.

P.P.I.: 14.

TAKE-UP & SHRINKAGE: About 15%. WEAVING: Weave 1" hems at the beginning and end of the mat, using a fine linen such as 16/1 linen in a similar color. (See notions above.)

Pick-up on a rigid heddle

To pick up warp floats, place the rigid heddle in the up position. Place a piece of paper on top of the lower threads to make picking up the raised threads easier. Follow the diagram for the pick-up design and pick up every other raised thread in the patterned areas (no threads are picked up in the plain weave areas).

Weave as follows:

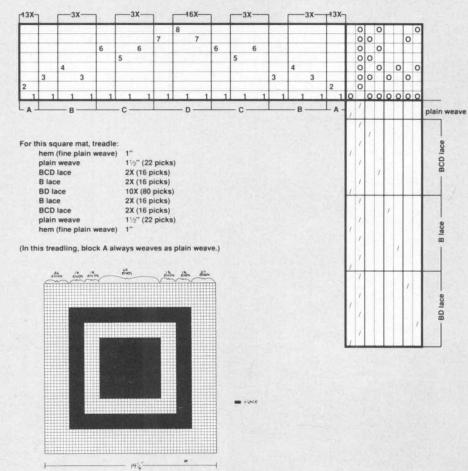
1. down shed

2. up and pattern stick (place rigid heddle in up position, pick up pattern, and slide pick-up stick forward)

3. down shed

4. up

On the second time through this sequence, pick up the threads in the lace area that are alternate to the ones picked up last time. (This will stagger your lace groups to give a lattice effect.) Repeat the 4-step sequence above, staggering the pick-ups and beginning and ending with the same pick-up.



Breadcloths with Figures

designed by Susan E.J. White page 11

8

PROJECT NOTES: I adapted this draft from Alberta Edwards' "Paper Dolls" towels in Handwoven's Design Collection #5. Once I understood how the dolls worked, I was able to draw a draft for my eight-shaft loom and, through sampling, design these teddy bears and boys and girls. Extending the center portion of the breadcloths makes them into wonderful towels.

FABRIC DESCRIPTION: Summer & winter.

FINISHED DIMENSIONS: Two towels, each 17½" wide by 20" long including a ¾" hem at each end.

WARP: 8/2 unmercerized cotton at 3575 yd/lb. This is Aurora Earth from Cotton Clouds, available on 4470-yd/20-oz tubes: 1120 yd natural (some used for weft).

WEFT: Thick and thin cotton at 3600 yd/lb. This is Rainbow Ends' Thick and Thin from Cotton Clouds, available on approximately 3600-yd/1-lb cones: 375 yd natural.

Pattern for the Teddy Bear Breadcloth—4-ply cotton at 800 yd/lb. This is Coats & Clark's Red Heart 100% Cotton, available in 125-yd/2½-oz balls: 60 yd yellow.

Pattern for the Boys and Girls Breadcloth—Cotton flake at 1500 yd/lb. This is Snowflake from Cotton Clouds, available on 800-yd/8½-oz cones or in 328-yd/100g skeins: 130 yd mulberry, used double. NOTIONS: Natural-colored sewing

E.P.I.: 16, sleyed 2 per dent in an 8-dent reed.

WARP LENGTH: 21/4 yd, which includes

WIDTH IN REED: 201/4".

take-up, shrinkage, and 27" loom waste. WARP COLOR ORDER: After weaving the Teddy Bear Breadcloth in yellow, cut 8 doubled ends of mulberry to replace the yellow warps. Cut the yellow warps at the warp tie-on stick in back of the heddles, tie in the mulberry warps, thread them forward through the heddles and reed, and pin them to the weaving under proper tension.

	- [-7X-	1			
8/2 cotton	8	43		7	=3	16
Yellow cotton		1	1		=	8

TOTAL WARP ENDS: 324.

P.P.I.: 12 in plain weave, 16 in pattern (8 each of pattern and background).

TAKE-UP & SHRINKAGE: 14% in width

and length.

WEAVING: For background weft, use a strand of 8/2 cotton and a strand of thick and thin cotton wound together on the shuttle. For pattern weft, use a single strand of yellow for the Teddy Bears Breadcloth, and use a double strand of mulberry for the Boys and Girls Breadcloth.

Begin and end each towel with 2½" plain weave. Weave the first border following the treadling sequence (the figures will weave from feet to head). Weave

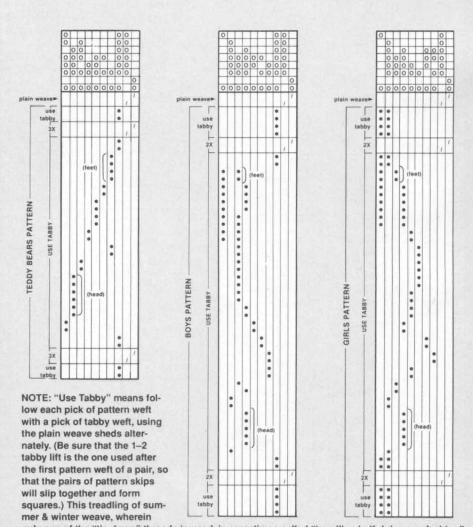
plain weave until the piece measures 12½". This is the middle. Continue weaving plain weave until reaching the beginning of the other border. Weave the second border in reverse treadling sequence (the figures will weave from head to feet), and end with 2½" plain weave. **FINISHING:** Machine wash in warm water on gentle cycle. Tumble dry.

ASSEMBLY: Hem each of the ends of the towels by hand after turning under \%" twice.

THREADING FOR ALL THREE BREADCLOTH FIGURES



* = heavy colored warp * = heavy pattern weft /= tabby wef



only one of the "tie-down" threads is used, is sometimes called "treadling half-dukagang fashion". ALSO NOTE: Since most 8-shaft looms have only 10 greadles but *full* tie-ups for the Girls and Boys figures, each requires more than 10 treadles; the tie-ups given here are *skeleton* tie-ups. That means that some pattern shots require using two treadles at a time when indicated by two marks on a horizontal row. It is also possible to use a further "skeletonized" tie-up or more treadles to weave both Boys and Girls pattern on the same tie-up.

Swatch Collection #19

designed by Sharon Alderman page 18

Note: All four of these fabrics use 16/1 linen at about 5450–5500 yd/lb or 16/2 linen at 2420–2720 yd/lb, in off-white, tan, and dark blue. These are all Bockens linen from Glimåkra Looms 'n Yarns. The off-white is Half-Bleached, the tan is Natural, and the blue is color #136.

Fabric #1: Bronson Lace

PROJECT NOTES: This classic fabric is woven in Bronson lace to form a checkerboard in the cloth. Each square of lace is five units wide and high.

I have designed this cloth with plain weave selvedges, because the lace weave does not produce stable edges automatically. All other areas of the warp have equal take-up because the blocks balance each other, but the plain weave selvedges will have different take-up. They will need to be beamed separately, weighted instead of beamed, or replaced by simple floating selvedge threads.

I would like to see this fabric made into a loose-fitting T-shirt shape—the fewer seams the better the design.

FABRIC DESCRIPTION: Two-block Bronson lace.

WARP & WEFT: 16/1 linen: half-bleached (see opening note).

E.P.I.: 30. P.P.I.: 28.

TAKE-UP & SHRINKAGE: 8% in width and length.

WEAVING: Wind your bobbins carefully and weave with a firm beat to square.

FINISHING: Wash in hot water with laundry detergent. Manipulate the fabric well to remove reed marks. Squeeze out the water, tumble the fabric in the dryer to shake out the wrinkles, then iron until dry. If you want a softer fabric, machine dry it until it is just damp, and then iron it. I experimented with tumbling the fabric and re-ironing it, and found that that softened it further.

Fabric #2: Plain and Basket Weaves

PROJECT NOTES: This simple but handsome fabric was designed for use as a collarless cardigan jacket (no notched lapels, please). I wanted to continue the checkerboard theme by contrasting two structures which create color textures in the cloth.

This weave requires eight shafts, four for each block. Drafts are given for two

other four-shaft versions. One of them makes crosswise bands of plain and basket weaves; the other contrasts the weaves in lengthwise stripes. The cloth in basket weave areas is not as firm as in the plain weave—in this eight-shaft version that is no problem because the squares alternate and balance each other. But in the lengthwise striped version the stripes must be beamed separately because the take-up of each weave is different.

Because two successive weft picks go into the same shed in the basket weave sections, the selvedges must be handled specially. If more shafts are available, thread an extra four ends 9, 10, 9, 10 at each selvedge (and add these to the tie-

up). Otherwise, use a floating selvedge thread on each edge.

FABRIC DESCRIPTION: Plain weave and 2/2 basket weave.

WARP: 16/2 linen: natural (see opening note).

WEFT: 16/2 linen: dark blue (see opening note).

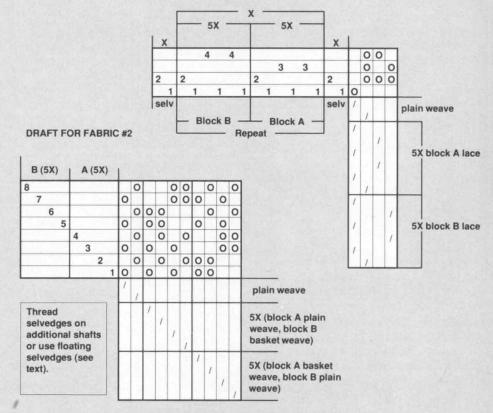
E.P.I.: 20.

P.P.I.: 20.

TAKE-UP & SHRINKAGE: 10% in width and length.

WEAVING: This cloth weaves up easily. Mark a strip of cardboard and use it to be sure the blocks are all woven the same length so your checkerboard will be even. FINISHING: Same as Fabric #1.

DRAFT FOR FABRIC #1



FOUR-SHAFT VERSION FOR WEFT-WISE BANDS:

4		0		0	
3	0			0	
2		0	0		
	10		0		E. Sieve et al.
	1	1			10X (plain weave)
			1	1	5X (2/2 basket weave
	L			1	

Use floating selvedges.

FOUR-SHAFT VERSION FOR WARP-WISE STRIPES:

				t	X ske	bas		X	5 pla	
0		0						4		4
	0		0				3		3	
0	0					2 2				
		0	0	1	1					
	1	1	1							

Fabric #3: Plain Weave Check

PROJECT NOTES: This checked fabric is very simple, a classic design, and the sheerest in this collection. It is constructed like a gingham except that the pairs of colors in the warp and weft directions are not the same. I like the interplay of natural and half-bleached linen with the indigo blue

FABRIC DESCRIPTION: Checked plain weave.

WARP & WEFT: 16/1 linen: 14-end stripes of half-bleached and dark blue in the warp, 14-pick bands of natural and dark blue in the weft (see opening note). E.P.L.: 27.

DRAFT: 2 0 4 0 P.P.L.: 25. 1 0 3 0 TAKE-UP & 1 0 SHRINKAGE: About 6–7% in width and langth

WEAVING: If working with fine singles linen worries you, keep the warp slightly damp (which strengthens the yarn). I had no trouble with breakage except when a shed didn't open properly and my heavy end-feed shuttle struck the errant ends "bang on" and broke them.

Use an even beat, and mark a strip of cardboard with the repeat length to measure, to ensure that you can match the check.

FINISHING: Same as for Fabric #1.

Fabric #4: Squares of Pinstripes

PROJECT NOTES: This somewhat heavier jacket fabric is the boldest looking of the collection. Squares of horizontal lines are framed by a background of vertical lines (while the back of the fabric is opposite—squares of verticals on a horizontally lined ground). The structure is very nearly plain weave.

In designing this cloth I made a sketch of the look I wanted and then did a thread-by-thread color-and-weave-effect drawdown. I worked backward from that drawdown to derive the warp and weft color orders, the threading, the tie-up, and the treadling necessary to produce the six-shaft cloth you see here. A draft is also included for a nearly identical four-shaft version.

Because this structure is plain weave nearly throughout the cloth, this is a stable, smooth fabric that shows off linen nicely.

FABRIC DESCRIPTION: Near-plain weave with color effect (similar to sha-

dow weave).

WARP & WEFT: 16/2 linen: alternating ends of natural and dark blue in the warp, and alternating picks of the same two colors in the weft (see opening note).

E.P.I.: 20.

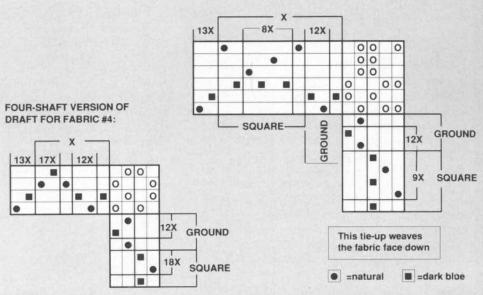
P.P.I.: 20.

TAKE-UP & SHRINKAGE: 10% in width and length.

WEAVING: This fabric was easy to weave but requires two shuttles that alternate. I had no problems with breakage or fraying.

FINISHING: Same as for Fabric #1. *

DRAFT FOR FABRIC #4



Bordered Linen Mat

designed by Jo Goodrich page 45

5 6

PROJECT NOTES: This elegant table linen has a subtle framing border of lines of short skips in warp and weft on the face of the mat. The threading requires five shafts, but I find I get a better shed on some treadles if I have spread the threads that are shown here as being on shaft 5 onto shafts 5 and 6 alternately. (I adjust the tie-up accordingly to use shafts 5 and 6 together.)

The ends on shafts 3 and 4 will gradually become looser than the rest of the warp because they experience less take-up. This usually presents no problem on a short warp, but for a longer warp you should either put these ends on a second warp beam or be prepared to take up and weight their slack as needed.

FABRIC DESCRIPTION: Plain weave with warp and weft skips (Bronson variation).

FINISHED DIMENSIONS: Six mats, each 13" wide by 18" long including 1/2" hem on each end.

WARP & WEFT: Size 12/3 linen at 1200 yd/lb: 1870 yd off-white. (Size 8/2 or 10/2 linen would also work well.)

YARN SOURCES AND COLORS: This is 12/3 Half Bleached Linen Warp from School Products Co., Inc.

NOTIONS: About 40 yd fine off-white linen (such as 20/1) for weft in the hem turn-unders; off-white sewing thread or very fine linen (such as 55/2) for sewing the hems.

E.P.I.: 15.

WIDTH IN REED: 14¹/₂". TOTAL WARP ENDS: 217

WARP LENGTH: 4¹/₂ yd, which includes take-up, shrinkage, and 27" loom waste. **P.P.I.:** Slightly fewer than 15 (to give exactly balanced weave when off the loom).

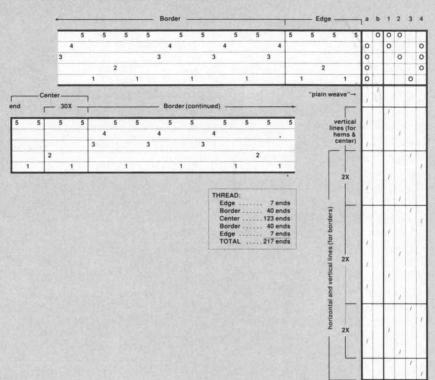
TAKE-UP & SHRINKAGE: 10% in width and length.

WEAVING: Begin with six shots of fine weft for hem turn-under, treadling b, a, b, a, b, a. Using the main weft, weave 15 shots of the "vertical lines" treadling, ending on treadle 2. Weave one repeat of the border ("horizontal and vertical lines"). Weave about 13¹/2" of "vertical lines" for the center. Weave the second border, the 15 shots of vertical lines, and the six shots of fine weft. Insert a cutting line of a contrasting color on treadle "a" before beginning the next mat.

FINISHING: Machine zigzag on both sides of the contrasting color weft before cutting the mats apart along that line. Turn under the fine-weft part, then turn under again and carefully hand hem so that the stitching line touches the beginning of the border. Press hems.

Hand wash the hemmed mats, using a liquid detergent and very hot water. (I find it best to wash one mat at a time, letting the mat soak until the water cools enough for comfort. I gently swish the mat back and forth in the suds, with NO squeezing, twisting, or wringing.) Rinse in alternating cold and hot water until no trace of suds remains. Let mat drip briefly, then lay it on a clean, smooth, waterproof surface, smoothing it into shape with your hands. Spread a terry towel over the mat and gently blot up excess water. Let mat dry several hours. While mat is still evenly damp, iron on both sides until dry, using a fairly hot iron. (The "cotton" setting on my iron works better for this than the "linen" setting.) After ironing, leave the mats lying flat overnight to make sure they are completely dry. *

DRAFT FOR BORDERED LINEN MAT:



Breadbasket Cloths

designed by Linda Heinrich page 39

PROJECT NOTES: These two breadbasket liners use fine linen yarns and Bronson lace weave in simple but effective checked designs.

For the peach and white cloth, the two blocks of lace are alternated; they are separated and framed by stripes and bands of plain weave. In the pastel plaid cloth the two blocks are used together to create each square of lace at the intersections of the peach and lavender stripes; blue plain weave separates and frames the lace squares. When drafted this way the squares can be either solid lace or a lace frame with plain weave center.

FABRIC DESCRIPTION: Bronson lace and plain weave.

Peach and White Square

FINISHED DIMENSIONS: Four cloths, each approximately 141/4" square, including 1/4" hem on all four edges.

WARP & WEFT: Size 16/2 linen at 2400 yd/lb: 1360 yd white (or off-white) and 360 yd peach. (You could also use size 20/2 linen.) YARN SOURCES & COLORS: This is Square Sale 16/2 Line Linen from Frederick J. Fawcett (Glimåkra Looms 'n Yarns): Bleached (or Half-Bleached) and Peach.

NOTIONS: White sewing thread.

E.P.I.: 20 (if using 20/2, sett at 24 e.p.i., 2 ends per dent in a 12-dent reed).

WIDTH IN REED: 15¾". WARP COLOR ORDER:

4

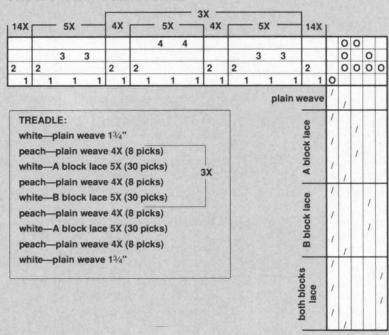
		-7X-	
white	20	30	20 =250
peach		8	8 = 64

TOTAL WARP ENDS: 314.

WARP LENGTH: 3 yd, which includes take-up, shrinkage, and 27" loom waste. P.P.I.: About 21-22 (measure the actual drawn-in warp count and strive for an exactly square count in the plain weave areas).

TAKE-UP & SHRINKAGE: 10% in width and length.

DRAFT FOR PEACH & WHITE SQUARE



WEAVING: Begin and end with a heading of colorfast washable contrasting weft, and use a pick or two of the same thread after each cloth to separate it from the next piece. Follow the treadling given with the draft or design your own—you could weave lace in *every* white square, for example, by treadling "both blocks lace" wherever this treadling calls for either block A or block B.

FINISHING: Do not remove the headings, but machine stitch them securely. Trim all warp ends and tails.

Soak the entire length of fabric in hot soapy water for an hour or longer, then wash, agitating by hand. Rinse well. (If you do machine wash and rinse the fabric, remove it from the machine for the spin cycles to avoid setting in any creases.) Roll the fabric in a thick terry towel without wringing it. (To preserve the luster of linen and keep it from getting dry and fuzzy, never dry it in a dryer.) Block the blotted linen by hand to re-establish the shape of each square, place it face down on another towel, and iron firmly on a medium-hot setting. Move the iron lengthwise and crosswise of the fabric, but not diagonally. (Ironing it face down helps avoid flattening the floats of the lace.)

Machine stay-stitch each end of each cloth adjacent to the separating threads or headers. Cut the cloths apart, remove separators and headings, and trim all ends close to stitching. Turn and hand stitch a narrow rolled hem on all four edges of each cloth.

Pastel Plaid Square

FINISHED DIMENSIONS: Four cloths, each approximately 14½" square including ½" hem on all four edges.

WARP & WEFT: Size 16/1 linen at 4800 yd/lb: 1230 yd light blue, 570 yd light peach, and 530 yd light lavender.

YARN SOURCES & COLORS: These are from two Canadian suppliers (Dandelions in B.C. and Rosetta Yarns & Weaving in Ontario). A comparable substitute is Borgs' Lingarn Nel 16/1 from Glimåkra Looms 'n Yarns: colors #0515 (blue), #0597 (peach), and #0126 (lavender).

NOTIONS: Matching light blue sewing thread.

E.P.I.: 30 (2 per dent in a 15-dent reed—because 3 per dent in a 10-dent reed may cause streaking, it is wise to sample and wash a piece first).

WIDTH IN REED: 15".

WARP COLOR ORDER:

		3X		
lt. blue	30	30	30	30 =240
lt. peach	3	0	3	0 =120
lt. lavender		30		= 90

TOTAL WARP ENDS: 450.

WARP LENGTH: 3 yd, which includes take-up, shrinkage, and 27" loom waste. P.P.I.: Approximately 32 (strive for a 50/50 fabric in the plain weave areas).

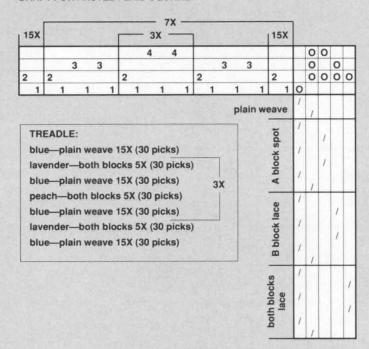
TAKE-UP & SHRINKAGE: 10% in width and length.

WEAVING: As in the Peach and White Square, begin and end each cloth with a colorfast washable heading or separator. In the cloth shown here, the lace blocks are woven combined, so that the lace fills the

squares where the non-blue stripes and bands intersect. You could design your own treadling. (Keep in mind that in Bronson lace a unit of six ends will form open lace only if it is woven together with an adjacent unit. In this threading the A block will make spots only and not lace if woven alone, and the B blocks will make spots only if they are not repeated.) You can weave a "hollow square" of plain weave outlined by spots, or the squares can be smaller lace centers surrounded by plain weave.

FINISHING: Follow the finishing instructions for the Peach and White Square.

DRAFT FOR PASTEL PLAID SQUARE



Maize Linen Hand Towel

designed by Linda Heinrich page 40

PROJECT NOTES: Plain weave borders and hemstitching set off the texture of the huck weave in these simple towels.

FABRIC DESCRIPTION: Huck and plain weave.

FINISHED DIMENSIONS: Three towels, each 13½" wide by 18½" long, including 1½" hemstitched hem on front end and ¾" plain hem on back end.

WARP & WEFT: Size 16/2 linen at 2400 vd/lb: 1730 vd light golden vellow.

YARN SOURCES & COLORS: This is Bockens 16/2 linen from Frederick J. Fawcett (Glimåkra Looms 'n Yarns): yellow #2022.

NOTIONS: Matching sewing thread; a few yards of smooth heavy colorfast thread (which will be used to hold the space for the open hemstitched row). E.P.I.: 20.

WIDTH IN REED: 15¾". TOTAL WARP ENDS: 314.

WARP LENGTH: 3 yd, which includes take-up, shrinkage, and 27" loom waste. **P.P.I.:** 21-22 (strive for exactly balanced weave).

TAKE-UP & SHRINKAGE: 10% in width and length.

WEAVING: This towel has a plain weave hem on each end (the plain weave selvedge borders happen automatically when you weave huck). Decorating one end of the towel is a line of openwork held by two rows of hemstitching. The hemstitched row closest to the hem will be done off the loom, securing the turned-under hem at the same time, while the hemstitched row adjoining the huck is worked while the fabric is on the loom. A smooth heavy thread that can be easily removed is laid into the shed to hold space for the open row.

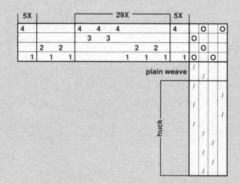
Begin by weaving a heading, using a colorfast washable thread. Using the yellow linen, weave 41/2" of plain weave, cutting the final pick and tucking in its tail. Lay in one pick of the heavy thread in the opposite plain weave shed, leaving a tail hanging on each side. Begin weaving again with the linen, leaving a tail (for hemstitching) that is at least three times the width of the warp. Weave four picks of plain weave, then pause and use the long tail to hemstitch over these picks and against the heavy thread. Resume weaving, treadling huck to the desired length. Finish with 3" of plain weave (there is no hemstitching or openwork at this end of the towel because the undecorated end hangs unseen behind the towel rod). Insert a colorfast dividing thread before beginning the next towel. When all three towels are woven, weave another 1" of washable filler.

FINISHING: Do not remove the headings at each end of the length, but do machine stay-stitch them securely so that the entire length can be washed before the towels are separated. Trim all ends close to the stay-stitching and trim any remaining tails close to the fabric. Correct any mistakes.

Soak the fabric in hot soapy water for at least an hour (or overnight), then wash, agitating by hand or machine. Rinse well. (If machine washing and rinsing, remove the fabric before spin cycles to avoid set-in creases.) Do not wring the fabric—instead, roll it in a thick terry towel to remove excess moisture. Hand block the woven fabric to its proper shape and place face down on a thick terry towel. Iron firmly with a medium-hot iron, first crosswise, then lengthwise, but never diagonally.

Machine stitch each end of each towel adjacent to the separating threads or fillers, then cut apart and remove fillers. Trim ends close to the stay-stitching. At the decorated end of the towel, pull out the heavy thread that is holding the open space. Turn under 3/8" of the end of the towel and bring that fold to the edge of the open space. Hemstitch this second row,

DRAFT FOR MAIZE LINEN HAND TOWEL



catching the fold of the hem and grouping the same warp ends as in the other row that was worked on the loom. (This makes a flatter hem than hemstitching both rows on the loom and then slipstitching the hem into place.) At the other end of the towel, turn under 3/8" and bring that fold close to the end of the huck pattern; slipstitch into place. (This hem should be about 5/8" deep—if it is too long, stay-stitch again and trim off the excess.) Stitch the selvedges of the hems closed with tiny overcasting.

Press the hems, then wash the towels again . . . and again and again. Repeated laundering will soften them considerably. To hang, fold the towel under lengthwise in thirds and then in half crosswise so that the undecorated end hangs behind the rod. ❖

Monogrammed Guest Towels

designed by Linda Heinrich page 40



PROJECT NOTES: These lovely linen huck towels feature hemstitched plain weave hems and plain weave medallions framed and monogrammed with silk half cross-stitch. You could weave them on four shafts if you were willing to take the extra time to do a little pickup to create plain weave for the monogrammed areas. FABRIC DESCRIPTION: Huck and plain weave, with half cross-stitch embroidery.

FINISHED DIMENSIONS: Two towels, each 13¹/₂" wide by 22¹/₂" long including 1" hem on each end.

WARP & WEFT: Size 40/2 linen at 6000 yd/lb: 2100 yd white (plus 800 yd for each additional towel if you want more than two).

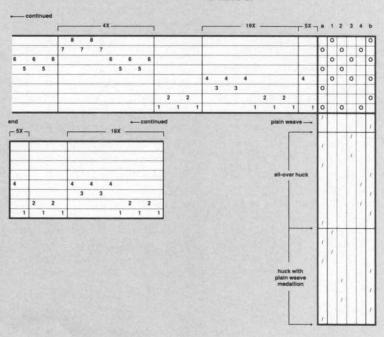
YARN SOURCES AND COLORS: This is 40/2 Bleached Linen from "HeirLoom Linens... and other strands".

NOTIONS: Fine 2-ply silk in desired color for half cross-stitch (this is a 30/2 cream silk from Treenway Crafts); a few yards of heavy weft for heading and spacing of hemstitch: matching white sewing thread.

E.P.I.: 30.

WIDTH IN REED: 15¹/₄". TOTAL WARP ENDS: 454.

WARP LENGTH: 2¹/₂ yd, which includes take-up, shrinkage, and 27" loom waste. **DRAFT**:



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P.P.I.: 32. (Strive for balanced weave—a count of 30 e.p.i. increases as weft take-up draws the warps closer together.)

TAKE-UP & SHRINKAGE: 11% in width and length.

WEAVING: Each towel will have a line of openwork (consisting of two rows of hemstitching) separating the plain weave hem from the huck body of the towel. The row of hemstitching along the huck side of the openwork will be done on the loom, while the row along the hem side of the openwork will be done off the loom so that it can secure the turned-under hem at the same time.

Weave a washable uncolored heading. Using the linen weft, weave 3" of plain weave, ending on treadle "a", cutting and tucking in the weft tail. On treadle "b" weave one pick of heavy weft to hold the space for the hemstitching openwork (leave tails hanging). Using the linen weft again, leave a tail three times the towel's width and start from the right side to weave four picks of plain weave. Use the tail to work a row of hemstitching along (but not including) the heavy weft. Continue weaving in "all-over huck" for six repeats (60 picks). Treadle "huck with plain weave medallion" to the desired height (this is 61/2 repeats). (You can shape the medallion by using a pickup stick to pick warp ends up or down to make lace or plain weave where desired.) Continue weaving in "all-over huck" for 43 repeats (or to desired length), ending on treadle "b". Weave three more picks of plain weave, cut off weft with a long tail, and use the tail to hemstitch the fell. Lay in a heavy thread for the openwork on treadle "b". With the beginning tail tucked in, weave with the linen weft for 3" of plain weave. End with about 1" of washable uncolored filler. Repeat entire sequence for the second towel.

FINISHING: Do not remove headings, but machine stitch them securely. Trim all weft tails to 1"; correct mistakes (if any). Soak the entire length of fabric in hot soapy water for an hour, then wash, agitating by hand. Rinse well. Roll the fabric in a towel to remove excess moisture, but do not wring. Re-establish the shape of the towels by hand blocking, then iron face down with a hot iron—use firm pressure with horizontal and vertical (not diagonal) strokes. Cut the towels apart, stay-stitch the ends adjacent to the filler, remove the filler, and trim ends close to stay-stitching. Pull out the heavy threads that were holding the openwork space. Turn each hem under 3/8" and bring the fold to the openwork space. Hand

hemstitch, grouping the warp ends the same as in the previous row and catching the hem fold into the stitching (this makes a much flatter hem than would hemstitching on the loom and slipstitching the fold to it).

Work the silk cross-stitch initial and frame on the plain weave medallion area. Stitch side hem openings closed. Wash and press the finished towels several times. �

Tea Cozy with Placemats

designed by Bep Kamphuis page 46

PROJECT NOTES: In traditional overshot the pattern weft is usually wool. For this elegant tea cozy and placemat set, practical and appropriate linen has been used instead, on a cotton ground. Flexible 3/4"-thick foam plastic insulates the cozy—a batt of polyester fiber-fill, cotton batting, or carded wool could be substituted (although the resulting cozy would not be quite as firm and free-standing). The woven part of the tea cozy is easily removed for laundering.

The golden yellow set shown here has a single-ply linen weft (size 10/1), but in weaving other sets I found that size 16/2 or comparable plied linen works better, so that's what's called for in the instructions. **FABRIC DESCRIPTION**: "Double Bowknot" pattern, overshot weave.

FINISHED DIMENSIONS: One tea cozy, approx. 9½" high by 12" wide by 2" thick, including 8" cuff turned to the inside as lining; also four placemats, each 12½" wide by 16¾" long including hemstitched openwork and 1¼" hem on each end.

WARP: Size 20/2 cotton at 7940 yd/lb: 2280 yd off-white.

WEFT: Tabby—same as warp: 1720 yd off-white.

Pattern—size 16/2 linen at 2580 yd/lb: 1030 yd golden yellow. (These yarn yardages are calculated to include weaving the cuff lining of the tea cozy instead of using commercial fabric.)

YARN SOURCES & COLORS: The warp and tabby are 20/2 cotton from Blomqvist: unbleached. Although a size 10/1 linen was actually used here for pattern, I suggest using a plied linen such as Borgs Nel 16/2 Lingarn (in a color of your choice).

NOTIONS: Matching off-white sewing thread; a few yards of smooth cord (to hold space for hemstitched openwork);

one piece of ¾" "foam rubber" 11½" by 19"; two pieces of cotton fabric at least 12½" by 20" (to cover the foam); optional two pieces of fabric 8" by 12" (for inner cuff, if you don't weave it as part of the handwoven design); optional piece of "burrtape" (Velcro®).

E.P.I.: 30.

WIDTH IN REED: 141/2".

TOTAL WARP ENDS: 431, including 2 floating selvedges.

WARP LENGTH: 5 yd, which includes take-up, shrinkage, and 27" loom waste. P.P.I.: 30 in plain weave, and 52 in pattern areas (26 each, pattern and tabby).

TAKE-UP & SHRINKAGE: 13% in width and 10% in length.

WEAVING: For each placemat, weave 31/2" plain weave using the cotton weft, leaving a long tail of weft at the end for stitching. Use this tail to hemstitch the fell of the cloth. Lay a length of smooth cord into the next shed, leaving tails of it hanging at both sides. Weave four picks of plain weave with the cotton, leaving a long tail at the beginning for stitching. Use this tail to hemstitch another row above the cord. Resume weaving with four more picks of plain weave, then pattern, using the linen for pattern weft and following each linen pick with a cotton tabby. For the patterned body of the mat I weave the beginning border, a bowknot, a table, the bowknot in reverse, and the border in reverse. Finish with 8 picks of plain weave, hemstitching, cord for spacing, hemstitching and 31/2" plain weave (the reverse of the beginning decorative end). Weave a pick or two of contrasting weft after each mat to separate it from the next

For the tea cozy I have used two different methods of layout and construction, both of which are shown here. In this yellow set the front and back of the cozy are woven as one long piece (approximately 31" on the loom, 29" after washing). It is turned sideways, folded and boxed, and the liner cuff is added along the open selvedge. In the resulting cozy the pattern weft runs vertically.

In the other method the front and back are woven as two distinct pieces which are separated and then joined by a gusset of narrow strips that are woven separately. In this finished cozy the pattern weft runs horizontally.

For the yellow (sideways) version: treadle the table figure and then the bowknot figure, alternating them four times and finishing with a fifth table. You can also weave an additional 16"–18" of plain weave for the liner cuff if you choose

to make it of handwoven, not commercial, fabric.

If, instead, you wish to make the "upright" version: weave 8" plain weave for cuff and then bowknot, table, bowknot for the front. Repeat this cuff and pattern sequence for the back. Then weave four crosswise strips, each consisting of 1" plain weave, the point twill strip treadling, and 1" plain weave.

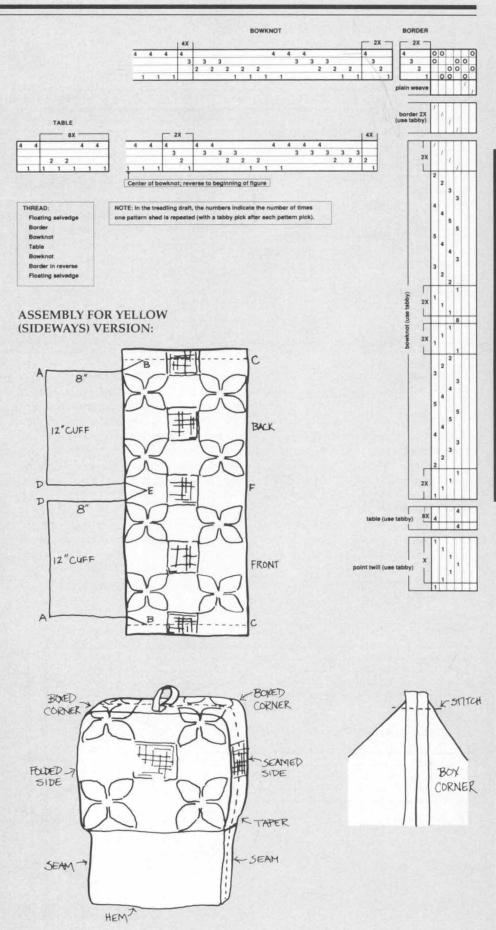
FINISHING: Machine stay-stitch the ends of the fabric. Machine wash, dry, and press while still damp. Machine stay-stitch each piece on either side of the separating threads, cut apart, remove filler, and trim ends close to stay-stitching if necessary.

ASSEMBLY: For the placemats, remove the smooth cord that was holding the open row (which was hemstitched on both edges while on the loom). Fold the stay-stitched end under 1/4" and bring the fold to meet the lower row of hemstitching. Sew the hem in place, overcasting to the hemstitched row or blind stitching it with matching cotton thread. Repeat at the other end of the mat.

For the tea cozy, follow the assembly diagram for whichever version of the cover you have woven. Make the padded insides of the cozy by encasing the piece of foam rubber (or batt or stuffing) with a fitted cover of commercial fabric. Fold this covered pad in half (bringing end to end) and slip-stitch the side edges together, leaving the end open. Fit the woven cozy over the padded liner and turn the cuff to the inside. (The ends of the cuff can be anchored to each other, or the liner can be anchored to the cozy, at the top of the inside by a strip of Velcro® if necessary.)

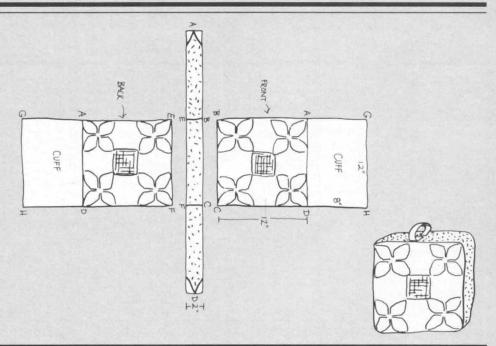
ASSEMBLY FOR SIDEWAYS VER-SION (see next page for Alternate Version).

- 1. Attach 8" by 12" cuff pieces to selvedge of patterned fabric.
- 2. Fold fabric in half (right sides together) across center of table figure at EF. Seam cuff and patterned fabric together at ABC, matching pattern carefully and seaming across centers of tables. (Notice that cuff is narrower than the outer cover so that it will fold inside the padded liner snugly.)
- 3. Sew other edge of cuff and angle DE.
- 4. Box top corners F and CC.
- 5. Turn and hem ends of cuff AD and DA. Turn entire piece right-side out.
- 6. Make loop of fabric and stitch to center of top for lifter.
- 7. Insert covered padded liner (open end down) and tuck cuff up inside as far as it will go.



ALTERNATE (UPRIGHT) VERSION:

- 1. Stitch three of the narrow strips together end-to-end for the top and sides of the gusset. Taper the ends of this long strip to points at A and D.
- Right sides together, stitch strip to front and back at BC and EF.
- 3. Stitch strip to selvedges of front and back along BA and EA, tapering seam to point A and continuing it to the end of the cuff AG. Repeat with CD and FD (and other cuff DH).
- 4. Hem the open end of cuff. Turn entire piece right-side out.
- 5. Fold the fourth narrow strip lengthwise and stitch. Turn right-side out, press flat, bend into a loop and stitch to center top of cozy for lifter.
- Insert covered padded liner (open end down) and tuck cuff up inside as far as it will go.



Crisp Linen Jacket

designed by Louise Bradley page 47

4

PROJECT NOTES: The linen yarns of this unlined jacket give it a special glow. A commercial garment pattern is modified to showcase the unique ability of handweavers to produce more than one fabric on a warp. Patterned fabric is used for the main part of the jacket. For stability and reduction of bulk, matching plain weave fabric is used for facings, hems, button covering, and bias covering of cording used as piping around all edges.

The draft is an adaptation of a huck

threading from *The Weaving Book* by Helene Bress, an unconventional treadling order she calls "turned M's and O's". The floats of the huck fabric give it a comfortable stretchable quality similar to that of a loose twill. The verticality of the warp skips enhance the slimming features of the design.

FABRIC DESCRIPTION: Huck variation and plain weave.

SIZE: Misses 10 (slightly altered by reducing depth of waist darts). Circumference at chest 44". Length from shoulder 22" in front, 19½" in back. Sleeve length from center back 30".

WARP & WEFT: Dry-spun 16/2 line linen at 2400 yd/lb: 3510 yd pink for warp and 2680 yd rose for weft.

YARN SOURCES & COLORS: This is Newport Linen 16/2, Item 178, from Halcyon Yarn. The warp is color #116 and the weft #117.

NOTIONS: Vogue pattern #7286 (in the Very Easy, Very Vogue series); matching sewing thread; 4 yd of 1/8" cotton cord; 12" of 1/4" cotton twill tape; one 7/8" shanktype button to be covered; 11/8 yd interfacing; one pair of shoulder pads; optional 1 oz of matching cottolin (for decorative serging).

E.P.I.: 20.

WIDTH IN REED: 211/2".

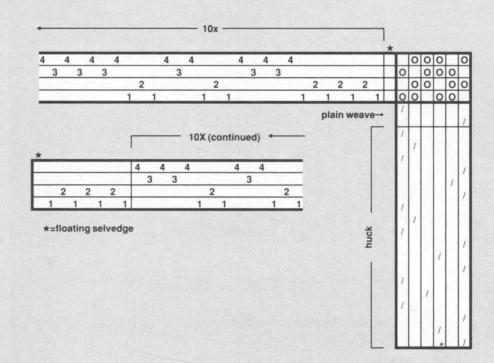
TOTAL WARP ENDS: 429 (including floating selvedges).

WARP LENGTH: 7³/₄ yd, which includes take-up, shrinkage, and 27" loom waste. **P.P.I.:** 14 in plain weave, 18 in huck.

TAKE-UP & SHRINKAGE: 15% in width and length.

WEAVING: Weave two yards in plain weave and the remainder of the warp in the huck weave. (The huck is an 18-pick treadling sequence, and errors are difficult to spot because of the close relationship of color of warp and weft. Therefore, you should pay close attention to accuracy.) As insurance against breakage, I used a temple and kept the warp damp by spraying it during the weaving.

FINISHING: The ends of the plain weave and huck sections of fabric were protected by two rows of zigzag stitching, and the two lengths were cut apart. Both lengths were washed in hot water in a regular



machine cycle, then dried flat (on a waterprotected floor). The fabric was dampened by spraying as it was ironed on both sides. Some surface lint had appeared during laundering—I brushed it away with a clothes brush.

CUTTING & ASSEMBLY: The face of the fabric with warp skips is the "right side". The pattern is symmetrical, so pieces can be turned end-for-end (as long as attention is paid to pattern matching at seams. The vertical repeat is about 1"; the horizontal is about 2".)

Cut (and stay-stitch) the pattern pieces as indicated in the garment instructions with the following exceptions: The handwoven fabric is only wide enough for one pattern piece, so lay out the pieces end-to-end, not side-by-side. Allow 1/4" additional seam allowances. Use selvedges for the center back seam. Remove the hem allowances from the sleeve and jacket back pieces; cut these hems from the plain weave fabric instead. (Remember to add seam allowances to both the hem pieces

and the jacket pieces to which they'll be sewn.) Cut the front and back facings from the plain weave fabric. Bias strips 11/2" wide and a total length of 4 vd are also cut from the plain fabric. (Because this fabric is not woven "square", but has 14 p.p.i. per 20 e.p.i., these cuts will not be at the usual 45° angle of bias. The bias grain of this fabric is closer to 60° and is clearly visible on scrutiny.) Only the main jacket pieces (two sleeves, two fronts, two backs) were cut from the huck patterned fabric. As is often the case with this type of garment design, there were many large scraps of the patterned fabric left over-I used some to cover the shoulder pads and made sachets for friends from the remainder.

Because the main fabric was prone to stretch diagonally, I cautiously staystitched all curved and slanted cuts. Twill tape was used to stabilize the shoulder seams. I chose to use a traditional woven interfacing instead of the fusible recommended on the pattern, but I found a scrap of fusible interfacing useful in covering the button with the plain weave fabric.

After joining the main garment pieces according to the pattern instructions, I joined the bias strips and used them to encase the cording. This piping was then sewn to the jacket and sleeve bottoms before attaching the facing and hem pieces. Most of the main body seams were finished with serged edges, using ordinary sewing thread. (The center back seam allowances are selvedges and don't need protecting.) Hem and facing edges were finished with a decorative serged edge using matching cottolin (which feeds more evenly than the 16/2 linen). The buttonhole was machine made with the matching cottolin used for cording it. All seams and hems were pressed, using a wet pressing cloth, at every stage of construction. Finally, to remove excessively flattened, shiny press marks, I gave the entire garment a light steaming with very little pressure. �

Sauna Towels in Thirsty Linen

designed by Kaino Leethem page 48

PROJECT NOTES: Finnish sauna towels are usually made of tow linen which is very absorbent and feels good to your skin. Inspired by a draft from the Finnish handcraft magazine *Kotiteollisuus*, I designed these two towels to be woven on one warp. They are both a herringbone, woven on a straight twill treadling—in the darker one the natural tan weft is the same color as the warp and obscures the twill in the tan bands.

FABRIC DESCRIPTION: Herringbone (broken point twill).

FINISHED DIMENSIONS: Two towels, each 28¹/₂" wide by 57" long including ³/₄" hem on each end.

WARP: Size 8/1 tow linen at 3000 yd/lb:

3050 yd natural tan. (You could use size 16/2 instead, if you prefer not to work on a single-ply warp.)

WEFT: Size 4/1 tow linen at 1460-1500 yd/lb (depending on whether it is bleached, unbleached, or dyed): 640 yd natural tan, 290 yd off-white, and 400 yd light turquoise for the darker towel; 860 yd off-white and 410 yd light turquoise for the slightly shorter lighter-colored towel. (These amounts are based on the proportions used in these two towels. If you are designing your own bands you should recalculate the weft amounts accordingly.)

YARN SOURCES AND COLORS: These yarns are all Helmi Vuorelma Oy's Tow Linen from Schoolhouse Yarns. The #8 warp is Unbleached. The #4 wefts are #400 Unbleached, #46 Half-Bleached, and #717 Light Turquoise.

NOTIONS: Matching sewing thread.

E.P.I. 20.

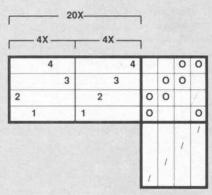
WIDTH IN REED: 32".

TOTAL WARP ENDS: 642 (including a doubled end at each side).

WARP LENGTH: 4¹/₂ yd, which includes take-up, shrinkage, and 27" loom waste. WEFT COLOR ORDERS (below):

"=inches; p=picks

DRAFT:



									_	2	x												
Darker Towel:				1.3			415					- 7						3/5	13		1011		
nat. tan (Unbleached)	6"				13.5	74.4		10"							1	0"							6"
off-white (Half-Bleached)		16p		16p		16p		16p	16p		16p		16p		16p	16p		16p		16p		16p	
light turquoise			8р		4"		8p			8p		4"		8p	ALW.	24.1	8p		4"		8p		

Lighter Towel:														- 600	100
off-white (Half-Bleached)	5-83	8p		15"		2"		11/2"		1"		8p		8p	
light turquoise	5"		8p		8p		8p	112.7	8p		8p		8p		4"

4

center band; reverse color sequence (but not treadling) to the beginning

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P.P.I.: 20.

TAKE-UP & SHRINKAGE: 11% in width and length.

WEAVING: Weave straight twill throughout, as given in the draft. The hems are included in the beginning and ending wide bands. I used a temple to keep the towels to full width. You can follow these color sequences or design bands of your own.

FINISHING: Machine stay-stitch ends. Turn under hems and hand stitch; press. Wash and dry like linen. ❖

Reproduction Towel

designed by Patricia Mansfield page 55

4

30X

FABRIC DESCRIPTION: Huck and plain weave.

FINISHED DIMENSIONS: 17¹/₄" wide by 24¹/₂" long, including ¹/₄" hem on each end.

WARP & WEFT: Size 40/2 linen at 6000 yd/lb: 1830 yd white and 80 yd blue (plus 1140 yd white and 40 yd blue for each additional towel if you want to make more than one).

YARN SOURCES & COLORS: This white is Bockens Lingarn from Treadle II (bleached), also available from Glimåkra Looms 'n Yarns. The blue is Size 20/1 linen at 6000 yd/lb from Frederick J. Fawcett (Glimåkra Looms 'n Yarns).

NOTIONS: One skein blue embroidery cotton (this is DMC #312).

E.P.I.: 36 (3 per dent in a 12-dent reed, with four ends in the first and last dents to crowd the selvedges).

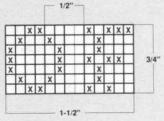
WIDTH IN REED: 191/4".

TOTAL WARP ENDS: 694.

WARP LENGTH: 1³/₄ yd, which includes take-up, shrinkage, and 27" loom waste, as well as enough for a small sample. (If you want to weave more than one towel, add slightly more than ³/₄ yd for each additional piece.)

WARP COLOR ORDER:

		-5X			-5X	
white	36	2	577		2	37 =670
blue		2	2	2	2	= 24



CROSS STITCH (for lower left corner, 2' in from side and 2" up from bottom end).

P.P.I.: 36.

TAKE-UP & SHRINKAGE: 12% in width and length.

WARP & WEAVING HINTS: Warp two ends at a time, and work with your cones of linen on a waist-height table (rather than pulling off cones on the floor). Use a room humidifier if the weather is dry. Dress the loom with a boiled and strained flaxseed and water dressing, painting the dressing on the warp with a small paint brush as you advance it. (Flaxseed is sometimes available at health-food stores.) Put lease sticks in the 1 and 4 sheds at the back of the loom and leave them in place during the weaving. Beat on both the open and closed sheds with two hard beats.

WEAVING: Overcast or hemstitch the beginning and end of each towel on the loom to prevent raveling. Begin and end with 11/4" of white plain weave. Weave the blue and white bands of plain weave in the same order as threaded, making sure you square both corners and match the stripe and band widths. Weave the body of the towel in huck for 23", then end with the blue and white bands of plain weave and the white plain weave.

FINISHING: Turn under and stitch a rolled '/s" hem before washing. If cross-stitching the initials, use two strands of embroidery floss and do the stitching before washing (so that you can see the huck pattern more clearly to embroider over it).

Wash by hand in hot water and gentle soap (such as Ivory Snow); rinse well in hot water. To soften the linen after washing, use tongs to plunge it alternately into boiling water and ice water four times. Roll it in a terrycloth towel to blot (do not squeeze or wring). Iron it immediately by placing it face down on a terrycloth towel, covering with a pressing cloth, and using only lengthwise and crosswise motions of the iron. Give it a final pressing on the wrong side.

29X

Linen Ticking

designed by Constance La Lena, after J. & R. Bronson page 56

3

PROJECT NOTES: See article.

FABRIC DESCRIPTION: 2/1 twill.

FINISHED DIMENSIONS: 36" wide by desired length.

WARP: Size 16/1 linen at 5350 yd/lb: off-white and navy blue.

WEFT: Same as warp: off-white.

YARN SOURCES & COLORS: This is Borgs' Nel 16/1 Lingarn (courtesy of Yarnworks, Grand Junction, CO): colors #0010 half-bleached and #0510 navy blue. E.P.L.: 40.

WIDTH IN REED: 39".

WARP COLOR ORDER: Note that when this is repeated it causes stripes of 16 off-white ends.

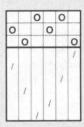
			- X	-10		
off-white	8	2		2		8
navy blue		2	6		2	

TOTAL WARP ENDS: 1560. (Width, number of color repeats, and resulting number of warp ends are optional. This fabric is 52× the given color order.)

DRAFT:



or alternative six-treadle tie-up:



or alternative five-treadle tie-up:

0			0	
		0		
	0			0
				1
		1		
	-		1	
-	1	,		
7		1		

P.P.I.: About 25-30. Strive for a firm, even beat

TAKE-UP & SHRINKAGE: 8% in width and length.

WEAVING: Use a temple to help keep the fabric even.

FINISHING: Stay-stitch ends of yardage. Machine wash in hot water with pure soap for 20 minutes. Dry until damp; iron with hot iron on both faces of damp fabric.

Shaker Towel in M's & O's

designed by Mary Elva Congleton Erf page 54

FABRIC DESCRIPTION: M's & O's (4end cords, 8-end units).



FINISHED DIMENSIONS: 16" wide by 34½" long including ¾" hem on each end. WARP: Size 40/2 linen at 6000 yd/lb: 1530 yd white (plus 960 yd for each addi-

tional towel if warping for more than

WEFT: Size 20/1 linen at 6000 yd/lb: 850 yd white (plus 850 yd for each additional towel).

YARN SOURCES & COLORS: These are Square Sale 40/2 line linen and 20/1 wetspun linen from Frederick J. Fawcett, both bleached.

E.P.I.: 40 (2, 3, 3 in a 15-dent reed, beginning and ending with 2 in a dent). **WIDTH IN REED:** 18".

TOTAL WARP ENDS: 720.

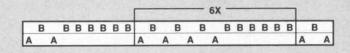
WARP LENGTH: 2 yd, which includes take-up, shrinkage, and 27" loom waste. (For each additional towel add 11/4 yd.) P.P.I.: 40.

TAKE-UP & SHRINKAGE: 11% in width and length.

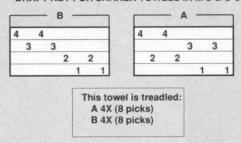
WEAVING: Weave to get a balanced plain weave in the plain areas.

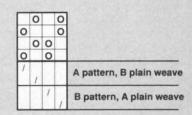
FINISHING: Turn and hand sew 3/8" hems. Wash in hot water; iron while damp. •

PROFILE DRAFT FOR SHAKER TOWELS IN M'S & O'S



DRAFT KEY FOR SHAKER TOWELS IN M'S & O'S





Simple Plaid Placemats

designed by Andrea Green page 69



FABRIC DESCRIPTION: Plain weave. FINISHED DIMENSIONS: Ten mats, each 13¹/₄" wide by 19" long including hem on each end.

WARP & WEFT: Single-ply tow linen at 2600 yd/lb: 740 yd bright red-orange and 960 yd caramel for warp only; 730 yd yellow and 120 yd blue-green for warp and weft; and 940 yd ocher and 520 yd peach for weft only. (Total for warp and weft for ten mats is about 3920–4000 yd—you could devise your own plaid in your own choice of colors.)

YARN SOURCES & COLORS: This yarn is #8 tow linen from Miranda Imports (colors #870 and #867; #868 and #883; and #866 and #871). You could substitute Helmi Vuorelma Oy's Nel 8 Rohdinlanka at 2970–3000 yd/lb, from Schoolhouse Yarns and Eaton Yarns (colors #432 and #430; #468 and #419; and #466 and #523).

NOTIONS: Matching sewing thread for stay-stitching and hemming.

E.P.I.: 20; double in a 10-dent reed, with two doubled ends (four actual ends) in one dent at each selvedge.

WIDTH IN REED: 141/4".

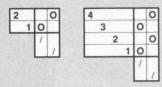
WARP COLOR ORDER:

bright red-orange	48*	77	Policia C	48	* =	96
yellow		30		30	=	60
blue-green		4	4	1100	=	8
caramel		1	124		=	124

* including two doubled selvedges (see text)

TOTAL WARP ENDS: 288 (280 plus selvedges).

WARP LENGTH: 71/4 yd, which includes take-up, shrinkage, and 27" loom waste. DRAFT: Note that four warp ends are threaded and sleyed double and used as two ends on each selvedge. These eight ends are measured about 8 yd long and are weighted separately instead of being beamed with the rest of the warp.



P.P.I.: About 18-20.

TAKE-UP & SHRINKAGE: 8% in width and length.

WEAVING: As mentioned above, the two doubled selvedge ends (four actual ends) at each side are measured, threaded, and weighted separately (not beamed). Weave at about 18 p.p.i. with a very firm double beat.

For these placemats I wove the following weft color order in each: 3" peach, 3 picks blue-green, 1½" yellow, 1½" ocher, 3 picks peach, 8½" ocher, 3 picks peach, 1½" ocher, 3 picks blue-green, and 3" peach. The peach at the ends includes an allowance for hems, and I took care to square each band of weft with its corresponding warp stripe at the corners (measured under tension). You could design your own color sequence (which would require recalculating the yarn amounts needed).

FINISHING: (see article). I machine stitched the ends and cut the mats apart. Each end of the mat was turned under and pressed at a depth that made each corner block of red-orange/peach a perfect square. The stay-stitched end was turned under again and pressed, and this fold was hand stitched with matching thread in a blind (hidden) stitch.

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Barley Corn Blouse

designed by Jean Scorgie page 70

4

FABRIC DESCRIPTION: Barley corn (spot Bronson).

SIZE: Women's size 8. Circumference at chest 38". Length from shoulder 19".

WARP & TABBY WEFT: Ne 12/2 cotton at 4700 yd/lb: 1640 yd light turquoise.

PATTERN WEFT: Single-ply linen at 750 vd/lb: 480 vd turquoise.

YARN SOURCES & COLORS: These yarns are both Finnish, by Helmi Vuorelma Oy, available in the U.S. from Schoolhouse Yarns. The cotton warp and tabby weft is Tuuli Ne 12/2: color 716. The linen pattern weft is Sini: color 715.

NOTIONS: Matching turquoise sewing thread; *HANDWOVEN Designer Pattern* #101, "Simple Tops"; 1 pkg turquoise single-fold bias tape.

E.P.I.: 18.

WIDTH IN REED: 27".

TOTAL WARP ENDS: 484.

WARP LENGTH: 2¹/₄ yd, which includes take-up, shrinkage, and 27" loom waste.

DRAFT: Note that the threading is a profile draft, with each letter representing a four-end unit. Since half of the threads are on shaft 1, you may need to count heddles (and transfer them if necessary) before threading.

P.P.I.: 22 (11 cotton tabby and 11 linen pattern).

TAKE-UP & SHRINKAGE: 10% in width and length.

WEAVING: Use the fine cotton as tabby weft and the heavier linen as pattern weft. In the treadling draft, each pick of pattern must be followed by a pick of tabby *on the treadle that lifts shaft 1* (the tabbies do not alternate in this weave).

For this blouse, I repeated the straight twill block pattern for approximately 13", wove one repeat of the diamond (point twill block pattern) for a yoke design, and then repeated the straight twill pattern in reverse for another 4". This completed the front of the blouse. The entire sequence was repeated for the blouse back. (You could devise your own treadling—just keep in mind that each little unit of treadling is two pattern picks, each followed by a pick of tabby on shaft 1, making four picks in all.)

FINISHING: Machine stay-stitch the ends of the fabric. Machine wash in warm water and gentle detergent, with warm rinse. Machine dry, removing the fabric while still slightly damp. Steam press.

ASSEMBLY: Cut out the back and front of blouse, aligning the yoke patterns at neck and shoulders and matching the patterns at the side seams. (I shortened the body 4" at the bottom and omitted the sleeves.) Zigzag or serge-overlock all cut edges.

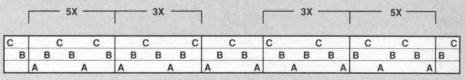
Sew the shoulder seams. Sew bias binding to neck edge (right sides together), turn binding under, and zigzag along other folded edge of binding to stitch it down.

For armholes, measure upper arm and add 4" (it will be about 16–17"). Cut two

pieces of bias binding to this measurement. Sew one strip of binding to each armhole, centering it at shoulder seam. Before stitching the binding down, sew the front to the back at side seams, overlapping the stitching of the binding by ½" (be sure binding is in the seam allowance when sewing side seam). Turn under the binding and zigzag in the same manner as at neck.

Bind the lower edge of the blouse in the same way as the neck.

PROFILE DRAFT:



DRAFT KEY:
A=1, 2, 1, 2
B=1, 3, 1, 3
C=1, 4, 1, 4
/=fine cotton

-heavy linen

000 0 00 000 plain weavestraight twill block pattern (use "a" tabby) . . 2X pattern (use "a" tabby) • . 2X 8 block twill 2X

.



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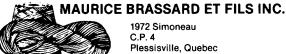
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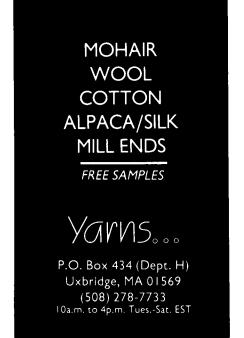
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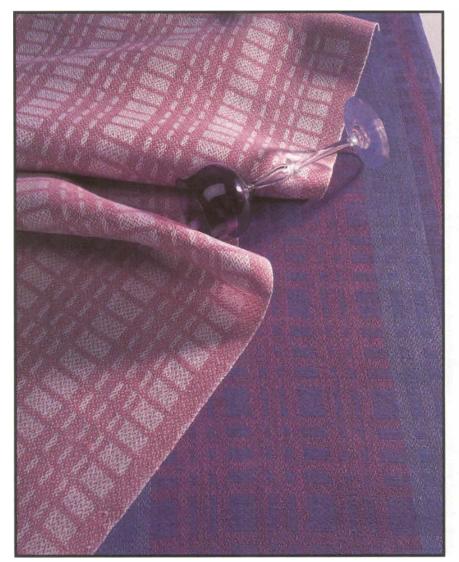
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DAMASK GALLERY





Purple Asters by Judith Rygiel of Nepean, Ontario, Canada

These runners are woven in two-block false damask (3/1 and 1/3 broken twill) on eight shafts. I used 16/2 Belgian linen at 1500 yd/lb and set it at 20 e.p.i. The picks per inch are slightly denser at 24 p.p.i. The color inspiration for these runners came from a bouquet of fall asters—I loved the close shades of these lavender and purple flowers, and I thought this color combination would look lovely

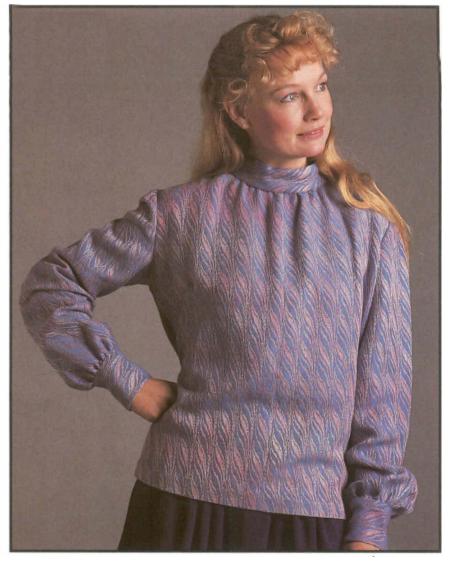
when woven. A 10-yard warp was enough for three runners and eight placemats.

I've been a full-time weaver for the past 13 years, weaving mostly limited-production textiles such as table linens, hand-dyed wool afghans, hand-dyed silk stoles and scarves, as well as liturgical fabrics. Last year I received awards for my curtain and upholstery fabric designs at the Ontario Handweavers and Spinners Conference. I also received an Ontario Arts Council Grant and an Ontario Craft Council Scholarship to study damask weaving in Sweden. I hold the Master Weaver Certificate from the Guild of Canadian Weavers, and I'm a Certified Instructor of Handweaving with the Ontario Handweavers and Spinners. When I'm not weaving, I enjoy photography, travel, and reading.

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Damask Blouse by Doramay Keasbey of Bethesda, Maryland





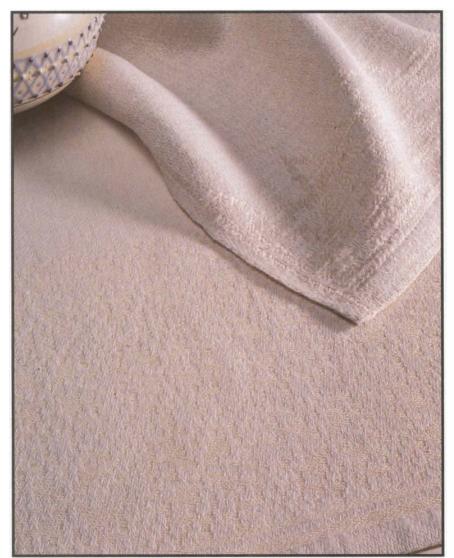
he repeating pattern in the supple fabric for my blouse is an original 24-block design adapted from an idea for undulating twill. I interpreted this design in damask to permit enlargement of the motif without increasing the length of the thread floats. The weave is an irregular six-shaft satin divided into pattern units of three warp ends and three weft picks each. I controlled the basic structure with six shafts and six treadles while pattern units, threaded on 24 additional shafts, were drawn up manually by means of drawcords mounted above the

countermarch loom which I've converted into a drawloom. The 80/2 spun silk warp was prepared by lightly dyeing the warp chain, rechaining and dyeing it again, for a variegated effect to enhance the natural shimmering quality of the fiber. The warp sett is 60 ends per inch, and the blue 20/2 mercerized cotton weft is beaten about 36 picks per inch to elongate the pattern slightly and to produce a softly-draping fabric.

Since learning the rudiments of weaving during temporary residence in Finland, I have explored a

broad range of materials and weaves. I take great delight in experimenting with my looms to make them exceed ordinary capacity. My work includes rugs, wall hangings, table linens, and most recently, handwoven scarves and clothing featuring complex patterns in fine, hand-dyed silk. I am currently vice-president of the Complex Weavers, and I'm an active member of my local guild, as well as an officer in the cooperative gallery where I show my work. My book about handwoven transparencies will be published later this year.

Table Linens by E. Del Zoppo of Point Michaud, Nova Scotia





I learned to weave in Chicago, and since that basic introductory course, I have worked largely on my own, supplementing my knowledge with study and workshops in Nova Scotia and Sweden.

For the past three years, I have concentrated on damask. Silk scarves and shawls, table linens, and other functional household fabrics are my main production items.

Living and working on the shore as I do, I am constantly aware of the shifts of light and air over the water, sand and grass. Damask offers potential for interpreting in fabric this continual movement. The light-reflecting qualities and suppleness of linen and silk have caused them to be traditionally paired with the

damask technique. I am currently exploring the combination of these materials with my own non-traditional designs and approaches.

In addition to weaving, I serve on the boards of the Nova Scotia Designer Crafts Council, Richmond Country Crafts, and DEVCO's Craft Development Advisory Council.

March/April 1989 HANDWOVEN 91

Reflections of a Nova Scotia Damask Weaver by E. Del Zoppo



My 95-year-old Italian immigrant grandfather is still having trouble understanding both my English and my rudimentary Italian. The eldest child of his eldest son and the only red-headed granddaughter, I received all the benefits of a university-educated, hard-working middle class family. I grew up on the shore of Lake

Michigan and did a lot of swimming, camping, and skiing. I went to a Catholic women's college, was blessed with a junior year in Italy, graduated with a degree in sociology, and began teaching elementary school on Chicago's south side.

Blame it on Italy, 1966, Chicago, the potter I married, or my being a sort of genetic throwback, but this granddaughter, in his words, "lives in the sticks" of Nova Scotia, gardens and raises geese, and now calls herself a weaver. Managia la miseria! For this he worked and sweated and dreamed?

But when a few years ago I showed him some white damask linen towels I'd woven, he looked at me and at the towels and nodded, "I remember, I remember... the fields of flax, all blooming with the little, little blue flowers... so beautiful."

I began weaving when 10 e.p.i. was the norm and the art fabrics of Tawney, Hicks, Zeisler and Abakanowicz were my models. Not being an "artist" I wove "useful" things to learn how to weave and wondered how it was that weavers chose just one or two techniques in which to specialize. Along the way I stopped wondering, fell in love with functional handwoven fabrics, began to work with finer threads and setts, and quite inadvertently, learned about damask.

I have always wanted to reflect in some way on the things I see in the organic world around me. My previous woven attempts at this were notably unsuccessful, but I find that damask teases me with its possibilities to express in cloth what I see. And while I don't want to reproduce the sun rising over a smoking sea on a sub-zero February morning, I find that through damask patterns I can share a sideways glance of the wonder this scene brings. It is rather like the echo that comes back when shouting in the mountains or across the lake. My work is not the actual image; rather it's a reflection of bits and pieces. This fascinates me, and I keep call-

Last year I made my Nonno a damask wool throw and now I don't worry too much about whether he understands my lifestyle. He's seen the flax bloom. If I could only show him the pink laurel blooming in the spring fog, I think he'd nod again.

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NOTICES

☐ The Squamish Weavers & Spinners Guild is sponsoring its fifth annual weavers' sample exchange, "Your Favourites". Open to all weavers on a first-come, first-served basis, participants have their choice of weave, using natural fibers only. Fee of \$18 (Canadian) covers printing, binders, and postage. Registration deadline March 31; early registration advised. For details, contact Squamish Weavers & Spinners Guild, Box 97, Britannia Beach, B.C., Canada V0N 1J0.

EXHIBITS, SHOWS & SALES

☐ Arizona. Mar. 17-27. Spin the Spider, Weave the Web. Biennial juried show by Telaraña Weavers and Spinners, P.O. Box 17244, Mesa, AZ 85212. At Mesa Southwest Museum, 53 N. MacDonald St., Mesa.

☐ Arizona. Mar. 18-19. Hello Phoenix Festival, 12th annual street fair featuring arts and fine crafts. Washington St. between Central and 4th Aves., Phoenix. Phoenix Festivals Inc., 3440 N. 16th St., Suite 12, Phoenix, AZ 85016. (602) 234-3828.

☐ Arizona. Mar. 31-Apr. 29, Earth Views, national juried exhibit of personal explorations of contemporary landscape. May 5-June 3, Fiber Connection, exhibition of fiber work by local artists. Both shows at Galeria Mesa, 155 N. Center, Mesa. (602) 644-2242.

□ Colorado. Apr. 2-30. Handweavers Guild of Boulder Juried Membership Show, Foothills Art Center, 809 15th St., Golden.

□ **Delaware.** Apr. 30-May 20. Two Decades with Harmony, biennial show sponsored by Harmony Weavers guild at Center for Creative Arts, Yorklyn. For information: (302) 731-5145.

☐ District of Columbia. Through Apr. 30: Eagles to Roses in Chichicastenango Textiles, exhibit of Guatemalan textiles from the late 19th century to the present. Mar. 18-Sept. 17: The Arthur D. Jenkins Collection: An Introduction to Oriental Carpets. June 17-Aug. 6: Early Textiles from Three Indonesian Cultures: Sumba, Toraja and Lampung. Sept. 2-Feb. 1990: Molas, appliquéd panels from Panama. Oct. 15-Feb. 1990: Rugs of the Caucasus. All exhibits at The Textile Museum, 2320 'S' Street, Washington, DC 20008. (202) 667-0441.

□ Illinois. Apr. 3-21. Fiber Works '89, biennial exhibition by DuPage Textile Arts Guild at Triton College, 2000 Fifth Ave., River Grove. For information: Penny Miller, 317 N. Spring, LaGrange Park, IL 60525. (312) 352-6941.

☐ Indiana. June 2-4. Madison Heritage Days festival of pioneer crafts, Madison. Demonstrations, sales, entertainment. For information, write Madison Heritage Days, 1119 W. Main St., Madison, IN 47250. (812) 265-5080.

☐ Indiana. August. Display of antique

coverlets from The Textile Conservancy and Lou Tate Little Loomhouse, plus winners of the Harmonie Weaving Institute's coverlet contest. Harmonie Weavers, Box 277, 612 Main St., New Harmony, IN 47631. (812) 682-3578.

☐ Iowa. March and April. National Symposium and Exhibition on Textile Arts of India at The Octagon Center for the Arts, 427 Douglas Ave., Ames, IA 50010. (515) 232-5331. Exhibits, demonstrations, and speakers.

☐ Iowa. April. Juried show of work using paper and/or fiber as the primary medium, at The Arts Center, Iowa City. For information, send SASE to Paper/ Fiber XII, The Arts Center, 129 E. Washington, Iowa City, IA 52240.

☐ Kansas. Apr. 2-May 1. Topeka Competition 13, regional exhibition of craft work including fiber, at Gallery of Fine Arts, Topeka Public Library, 1515 W. 10th, Topeka, KS 66604-1374. (913) 233-2040.

☐ Maryland. Mar. 31-Apr. 26. American Tapestry Weaving Since the 1930s, exhibition at the Art Gallery at the University of Maryland, College Park. (301) 454-2763.

☐ Massachusetts. Through March 18. Diminishing Circles, display of handknit sweaters by Jackie Fee, author of *The Sweater Workshop*. At The Silver Ribbon, Brigantine Village, 156 Church St., Rt. 139, Pembroke. (617) 826-1525.

☐ Massachusetts. May 19-21. 19th Annual Juried Craft Fair at Worcester Center for Crafts, 25 Sagamore Rd., Worcester.

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FOR MORE INFORMATION PLEASE WRITE: TIA, BOX 1389-H, TAOS, N.MEX. 87571 OR CALL (505) 758-2793. (508) 753-8183.

- ☐ Minnesota. June 24-25. 17th Annual Minnesota Crafts Festival, College of St. Catherine, in St. Paul. For information, send SASE to MCC-Festival, Suite 308, 528 Hennepin Ave., Minneapolis, MN 55403. (612) 333-7789.
- □ New Mexico. Apr. 7-May 7, Que Pasa: Art in New Mexico. May 12-June 11, exhibit including work by the Art Thru the Loom Guild. Aug. 4-Sept. 3, exhibit including work by weaver Laurie Naranjo. Also art and craft fairs from August into December. Fuller Lodge Art Center, 2132 Central Ave., Los Alamos, NM 87544. (505) 662-9331.
- □ New York. April 11-28. Fiber Arts 1989, juried membership exhibition of the New York Guild of Handweavers. Cynthia Schira, guest artist. At the Craft Students League Gallery, YWCA, 610 Lexington Ave. at 53rd St., New York City. Information: Betty Vera, 41 Union Square, #531, New York, NY 10003. (212) 924-2478.
- □ New York. May 4-7. American Craft at the Armory, juried exhibition and sale of museum-quality crafts, at the 7th Regiment Armory, New York City. For information: Marylou Krajci, (212) 420-1140, or American Craft Enterprises, P.O. Box 10, New Paltz, NY 12561. (914) 255-0039.
- □ New York. June 17-18. Great Hudson River Revival, craft show and festival at Westchester Community College, Valhalla. Contact Hudson River Sloop Clearwater, Inc., 112 Market St., Poughkeepsie, NY 12601. (914) 454-7951.
- □ New York. July 1-2, 8-9, 15-16. 13th Annual American Crafts Festival at Lincoln Center, Fordham University Plaza, New York City. Also, 6th Annual Autumn Crafts Festival, Aug. 26-27, Sept. 2-4, 9-10. For information, contact Brenda Brigham, P.O. Box 650, Montclair, NJ 07042. (201) 746-0091.
- □ North Carolina. Mar. 30-Apr. 2. Fiber Art in the '90s: Aesthetics and Technology, Southeast regional fibers symposium and exhibition juried by Randall Darwall, in Winston-Salem. For information, write Fibers Symposium, Sawtooth Center for Visual Design, 226 N. Marshall St., Winston-Salem, NC 27101.
- ☐ Oklahoma. Through April 6. Fiberworks '89, 11th annual juried fiber exhibition by Oklahoma artists, sponsored by the Handweavers' League of Oklahoma. At the Kirkpatrick Center, Oklahoma City. Information: Kirkpatrick Center, 2100 NE 52 St., Oklahoma City, OK 73111.
- ☐ **Oregon.** May 5-6. Annual Grant Sale of handwoven items by the Portland Handweavers Guild, Inc. A percentage of

- receipts goes toward a grant given by the guild to a worthy recipient. At Montgomery Park, 2701 N.W. Vaughn St., Portland. For information, write Ladella Williams, 4254 N.E. Flanders St., Portland, OR 97213, or call Cecelia Goodnight, 227-3455.
- ☐ Oregon. May 12. Designed to Wear, juried fashion show of one-of-a-kind wearable art by U.S. artists. Oregon School of Arts and Crafts, 8245 SW Barnes Rd., Portland. Fashions will be displayed in the school's gallery May 16-25.
- □ Pennsylvania. March 24-26. 7th Annual Pennsylvania National Arts & Crafts Show, March 24-26 at the Pennsylvania Farm Show Complex, Harrisburg. Pennsylvania National Arts & Crafts Show, P.O. Box 11469, Harrisburg, PA 17108. (717) 763-1254.
- ☐ Pennsylvania. Apr. 2-May 26. Weaving in the U.S.A., 36th annual exhibit of juried works by the Philadelphia Guild of Handweavers, at Cliveden, 6401 Germantown Ave., Philadelphia.
- ☐ Pennsylvania. Apr. 21-May 5. 1989 Fiber Arts Exhibit, juried show at the Packwood House Museum, Lewisburg. Sponsored by Lewisburg Council on the Arts, P.O. Box 499, Lewisburg, PA 17837. (717) 523-7328 or (717) 524-4157.
- ☐ Tennessee. Through May 20. Animal Imagery: New Forms, New Functions, national juried show sponsored by the Arrowmont School of Arts and Crafts, P.O. Box 567, Gatlinburg 37738. (615) 436-5860.
- ☐ Texas. Through Mar. 24. Woven Structures in the Computer Age, an international exhibition of fiber art at Texas Woman's University Galleries, corner of Oakland and Texas Sts., Denton.
- □ Texas. Apr. 1-2. Winedale Spring Festival and Texas Crafts Exhibition. Juried show, including fiber work; demonstrations and entertainment. University of Texas at Austin, Winedale Historical Center, just off FM Road 1457, near Round Top. Information available from Gloria Jaster, P.O. Box 11, Round Top, TX 78954. (409) 278-3530.
- ☐ Texas. Apr. 3-28. Beyond Tradition, 1989, juried show sponsored by the Contemporary Handweavers of Houston, in association with the Houston International Festival. For information: Susan Land, 8006 Buffalo Speedway, Houston, TX 77025. (713) 663-7232.
- ☐ **Texas.** April 15-16, Fiesta Arts Fair, juried exhibition and sale sponsored by Southwest Craft Center, 300 Augusta, San Antonio. For information, call SWCC, (512) 224-1848.
- ☐ Texas. May 4-7, Mayfest '89, outdoor

- art show, demonstrations, and sale in Fort Worth, TX. All media. Mayfest, 1110 Penn St., Fort Worth, TX 76102. (817) 332-1055. Utah. Mar. 10-Apr. 16. A Tribute to the Natural World, 10th biennial fiber show of the Mary M. Atwater Weavers' Guild of Utah, at the Utah Museum of Natural History, University of Utah, Salt Lake City. Sponsored in part by Utah Arts Council and the National Endowment for the Arts. For information: Susan Hainsworth, 380 East 500 South, Bountiful, UT 84010.
- ☐ Utah. Apr. 6-28. Cedar City 48th Annual Multi-Media Art Exhibit, Braithwaite Gallery, Southern Utah State College, Cedar City. For information, contact the gallery at 351 W. Center, Cedar City, UT 84720.
- ☐ Utah. June 21-25. Utah Arts Festival, Triad Center, Salt Lake City. Sales, entertainment, demonstrations. For information, contact Jamie Leigh-Galli, Utah Arts Festival Foundation, 168 West 500 North, Salt Lake City, UT 84103. (801) 322-2428.
- ☐ Utah. July 27-Sept. 24. Fiber Celebrated '89, juried exhibit of fiber work in conjunction with Intermountain Weavers' Conference, at Salt Lake Art Center, 20 S. West Temple, Salt Lake City, UT 84101.
- ☐ Virgin Islands. Mar. 17-19. Arts Alive arts and crafts festival at Tillett Gardens, St. Thomas. Additional festivals Aug. 11-13 and Nov. 24-26. For information, contact Rhoda Tillett, Arts Alive, Box 7549, St. Thomas, U.S. Virgin Islands 00801. (809) 775-1405.
- ☐ Washington. Mar. 3-Apr. 2. Functional Fibers '89, juried exhibit of primarily handwoven items made by Washington state residents. Seattle Weavers' Guild, 1245 10th Ave. E., Seattle, WA 98102.
- ☐ Wisconsin. Apr. 2. 17th Annual Festival of the Arts, Interior Courtyard, Fine Arts Bldg., Univ. of Wisconsin-Stevens Point, Stevens Point. Information: Festival of the Arts, P.O. Box 872, Stevens Point, WI 54481.
- ☐ Wisconsin. May 6-7. Madison Weavers Guild show and sale at Hilldale Mall, 702 N. Midvale Blvd., Madison. For information, contact Avis Fisher, (608) 837-5021.
- ☐ Canada, Ontario. Sept. 6-Oct. 15, Ontario Crafts '89. Oct. 18-Dec. 3, Interior Motives, textile display. Dec. 6-31, Lois Schklar: Fibre Vessels. The Craft Gallery, Ontario Crafts Council, 35 McCaul St., Toronto, Ontario, M5T 1V7 Canada. (416) 977-3551.

CONFERENCES

☐ Mar. 30-Apr. 2. Fiber Art in the '90s symposium, Winston-Salem, NC, featur-

ing Rita Buchanan, Randall Darwall, Zoe Lancaster, M. Joan Lintault, John McQueen, and Jon Riis. Request brochure from Fiber Symposium, Sawtooth Center for Visual Design, 226 N. Marshall St., Winston-Salem, NC 27101.

☐ April 14-15. Come Into My Home: Handwoven Textiles for Interiors, conference hosted by the Kansas Alliance of Weavers and Spinners, and the Topeka Handweavers and Spinners, in Topeka, Kansas. Sharon Alderman, featured speaker. For information, call The Washburn University Office of Continuing Education, (913) 295-6399.

☐ April 14-16. Annual conference of Florida Tropical Weavers Guild at the Holiday Inn West, Gainesville, FL. Exhibits, workshops, seminars, fashion show. Teachers include Sigrid Piroch, Mary Elizabeth Laughlin, Lissa Hunter, and Celia Quinn. For information, contact Pat Mitchell, Rt. 1, Box 322-8, Micanopy, FL 32667.

□ April 14-16. Fiber Forum II, 12th annual conference of the Missouri Fiber Artists, at Dunnegan Gallery, Bolivar, Missouri. For information: Missouri Fiber Artists, 1514 S. Calhoun, Mexico, MO 65265.

□ April 21-23. Fiber Dynamics, 36th annual conference of Northern California Handweavers, Sonoma County Fairgrounds, Santa Rosa, California. Exhibits, demonstrations, speakers, style show. For information, send 45¢ postage to: Registrar, Box 9447, Santa Rosa, CA 95405.

☐ April 26-30. Great American Quilt Festival 2, sponsored by the Museum of American Folk Art, at Pier #92 (West 52nd St. at the river) and the Fashion Institute of Technology (W. 27th St. between 7th & 8th Aves.). Exhibits, booths, lectures, workshops, fashion shows. For information: Susan Flamm, 444 Park Ave. S., New York, NY 10016. (212) 481-3080.

☐ Apr. 26-May 1. National Convention

of the Knitting Guild of America, Regency Hotel, Denver, Colorado. For information, call (615) 524-2401.

☐ May 3-8. A Show of Hands, conference sponsored by the Ventura County Handweavers and Spinners Guild at the Doubletree Hotel, Ventura, California. To register, contact Kathleen Cone, 4909 Stockdale Hwy., P.O. Box 339, Bakersfield, CA 93309. (805) 832-6068.

☐ May 4-7. Interweave Forum '89: Designer Fabrics for Fashion Interiors, Denver, CO. Send SASE to Interweave Forum '89, 306 N. Washington Ave., Loveland, CO 80537.

☐ May 5-7. Coast to Coast Thru' Thick and Thin, conference of Ontario Handweavers and Spinners at Geneva Park, Orillia, Ontario, Canada. Speakers and workshop leaders include Joleen Gordon, Diane Mortensen, and Barbara Carter Scott. For information, contact Miss Pauline Fanning, 982 Silverdale Rd., Peterborough, Ontario K9J 7W6 Canada. ☐ May 6-7. 1989 Maryland Sheep & Wool Festival, Howard Cnty. Fairgrounds, West Friendship, Maryland. Demonstrations, sales, exhibits, seminars.

☐ May 19-21. Spin-In Conference of the Northwest Regional Spinners Association, at George Fox College, Newberg, OR. Contact Sharon Lindsey, 1187 Kashmir Dr. S., Salem, OR 97306.

☐ May 23-26. National Woolcrafts Festival for the New Zealand Spinning, Weaving and Woolcrafts Society, University of Otago Union, Dunedin, N.Z. Contests, fashion show, workshops. For information, contact Bev. Coppin, 5 Bonar St., Halfway Bush, Dunedin, New Zealand.

☐ June 8-10. Fifth Annual Wyoming Fiber Affair, Worland Public School, Worland. Workshops by Bobbie Irwin, Sara Nephew, Patsy Zawistoski, Roxanna Bartlett, and Laurie Gano. For information, write Rhonda Diltz, P.O. Box 1014, Douglas, WY 82633.

☐ June 9-11. Ontario Handspinning Seminar 25th anniversary celebration at Queen's University campus, Kingston, Ontario, Canada. Workshops, reception, sales, displays. For information: Seminar, Box 400, Verona, Ontario K0H 2W0 Canada.

☐ June 16-18. Eastern Great Lakes Fiber Conference. Speakers include Diane Itter, Priscilla Gibson-Roberts, and Stanley Bulbach. To be held at the State University of New York-Geneseo campus (Rochester area). Contact EGLFC-Registrar, 906 DeWitt Rd., Webster, NY 14580.

☐ June 19-26. The World Congress on Coloured Sheep. Lectures, seminars, workshops, exhibits, demonstrations, competitions, fiber animal shows and sales. For information, write to P.O. Box 93, Curtin, OR 97428.

☐ June 21-25. MidAtlantic Fiber Conference, Brandywine Inn, Downington, Pennsylvania.

□ July 6-9. Fiber Fireworks, Midwest Weavers' Conference, at the Albert B. Sabin Convention Center, Cincinnati, Ohio. Speakers include Madelyn van der Hoogt, Karen Selk, and Lissa Hunter. Workshops, exhibits, fashion show. Those attending must be members of Midwest Weavers Association; for lifetime membership, send \$2 to Marjorie O'Shaugnessy, 2121 Skyline Pl., Bartlesville, OK 74002. Conference information is available from M.W.C. 1989, 11701 Laurelview Dr., Cincinnati, OH 45249.

□ July 9-16. Fiber '89, 14th biennial Northwest Weavers' Conference at Boise State University, Boise, Idaho. Randall Darwall, keynote speaker. Workshops, seminars, exhibits, fashion show. For registration information, contact Diana Bennett, Registrar, Fiber '89, 2000 Howard Ave., Caldwell, ID 83605.

☐ July 14-16. 18th biennial New England Weavers' Seminar, University of Massachusetts, Amherst. Lectures, mini-work-





shops, exhibits, fashion show, commercial booths. Post-conference workshops July 17-19. For information, contact Kathryn Bardwell, RD Box 291, Craryville, NY 12521.

☐ July 26-30. Intermountain Weavers' Conference, Marriott Hotel, Salt Lake City, Utah.

TO ENTER

- □ 32nd Annual Guilford Handcrafts Exposition, July 13-15, on historic Guilford Green, Guilford, CT. All craft media; juried by 5 slides. \$15 jury fee; application deadline March 10. Request application from Guilford Handcrafts, P.O. Box 589, Guilford, CT 06437. (203) 453-5947.
- ☐ Personal Packaging, July 8-Sept. 3, Schweinfurth Art Center, 206 W. Genesee St., Auburn, NY. Contemporary wearable art as a means of personal expression. \$5 fee; original handmade work. Entry deadline March 31. For information, send SASE to "Personal Packaging", P.O. Box 916, Auburn, NY 13021. (315) 255-1553.
- □ Neck Charmers, Apr. 10-29, competition/exhibition of original design wearable neck pieces. Cash awards; entry deadline April 1. For rules and application, send SASE to Sylvia Designs & Yarnworks, 104 S. Columbus St., Alexandria, VA 22314. (703) 549-7006.
- ☐ FiberAlaska '89 Art Show, June 17-30, juried international show. All fiber constructions eligible; slides due April 1. Cash awards. Send SASE to FiberAlaska '89 Show Coordinator, P.O. Box 110827, Anchorage, AK 99511-0827.
- ☐ Design Competition 1989, Apr. 26-May 1, in conjunction with the National Convention of The Knitting Guild of America in Denver, Colorado. Knitting contest open to TKGA members who are not professional designers. Cash and merchandise prizes. Deadline April 10. For information, contact TKGA, P.O. Box 1606, Knoxville, TN 37901. (615) 524-2401.
- ☐ 11th Annual Missouri Fiber Artists Members' Traveling Exhibit, Aug. 1, 1989-Apr. 14, 1990. Entries must be received between Apr. 10-14, 1989. Open to artists working in all fiber media. Request prospectus/membership information from Sue Unger, Ph.D., P.O. Box 83, Bolivar, MO 65615.
- ☐ Madison Heritage Days, festival of pioneer crafts, June 2-4, Madison, Indiana. All work should have historical significance. Booth fee \$35; application deadline April 15. Send SASE for information to Madison Heritage Days, 1119 W. Main St., Madison, IN 47250. (812) 265-5080.

- □ 1989 Fiber Arts Exhibit, Apr.21-May 5, at Packwood House Museum, Lewisburg, Pennsylvania. Juried exhibit; entries due April 15. For prospectus, send SASE to Fiber Arts Exhibit, Lewisburg Council on the Arts, P.O. Box 499, Lewisburg, PA 17837.
- ☐ Handwoven Coverlet Contest, August, New Harmony, Indiana, sponsored by the Harmonie Weaving Institute. Entry blanks due May 1, coverlets due July 1. Send SASE to Harmonie Weaving Institute, Box 277, New Harmony, IN 47631. (812) 682-3578.
- □ Vermont Weavers' Guild Bi-Annual Fiber Exhibit, May through mid-July 1989, at the Barre Historical Society, Barre, Vermont. Open to all fiber artists. For information, contact Celia Oliver, RD Box 2320, Bennett Rd., N. Ferrisburgh, VT 05473.
- ☐ Jean A. Chalmers Fund for the Crafts, research grants from the Canada Council for the advancement of crafts in Canada. Sept. 1 deadline. Request information Canada Council, P.O. Box 1047, Ottawa, Ontario K1P 5V8 Canada. (613) 598-4365.

INSTRUCTION

- ☐ March. The Arrowmont School of Arts and Crafts offers a variety of workshops during March by renowned artists. Subjects include Brocade; White Oak-Modified Traditional Basketry; Combining Media on Cloth; Pushing the Limits of Basketry; Handpainting on Silk; and Tapestry. The school also offers assistantships for the summer sessions, June 3-July 8 and July 8-Aug. 13. Applicants must have a minimum of 4 years' experience or course work. Work assistantships (in exchange for kitchen help) and scholarships (based on monetary need, without regard to experience) are also offered. Applications are due April 1;\$15 fee. Application forms are available from Arrowmont School, P.O. Box 567, Gatlinburg, TN 37738. (615) 436-5860.
- ☐ March 11-12. Workshop on casting large multicolored paper, with John Babcock. Sponsored by Southwest Craft Center, 300 Augusta, San Antonio, TX 78205. (512) 224-1848.
- ☐ March 11-12. Ikat workshop with Pauline Sargent Deppen. Oregon School of Arts and Crafts, 8245 SW Barnes Rd., Portland, OR 97225. (503) 297-5544.
- ☐ March 18-19. Basketry workshop—the Shaker Personal Carrier, led by John McGuire. Limited enrollment. Vermont State Craft Center at Frog Hollow, Middlebury, VT 05753. (802) 388-3177.
- ☐ Through March 26. A Celebration of

- Fiber Art, workshops, lectures, demonstrations and exhibitions sponsored by the Fresno Fiber Guild, Fresno Art Museum, and National Standards Council of American Embroiderers. Lectures, demonstrations, workshops, & exhibits; activities scheduled at several locations in the Fresno, CA, area. For a schedule of events, contact Lorraine Linneberger, Fresno Fiber Guild, P.O. Box 16186, Fresno, CA 93755. (209) 229-0073.
- ☐ March 10-12. Style in the 18th Century: Straightlaced or Unlaced? Seminar focuses on fashionable garments of colonial Virginia. At Colonial Williamsburg, VA. (804) 220-7645.
- □ April 1. Symposium on American tapestry weaving since the 1930s, University of Maryland, College Park. Contact Debra Arcamonte, The Art Gallery, Art-Sociology Bldg., Univ. of Maryland, College Park, MD 20742. (301) 454-2763.
- ☐ April 4, 11. Beck Whitehead teaches a 2-day workshop on making paper suitable for watercolor painting. Sponsored by Southwest Craft Center, 300 Augusta, San Antonio, TX 78205. (512) 224-1848.
- ☐ April 7-9. Wearables: A Focus on Clothing Design & Sleeves, workshop designed to encourage individual fantasy in garment construction and design, especially for handweavers. Also, a free slide lecture on the same topic April 7. Southwest Craft Center, 300 Augusta, San Antonio, TX 78205. (512) 224-1848.
- ☐ April 15-19. Twill in Rugs, workshop by Peter Collingwood for weavers with a command of terminology and a working knowledge of the loom. Limited enrollment. Contact Southwest Craft Center, 300 Augusta, San Antonio, TX 78205. (512) 224-1848.

TRAVEL

- ☐ Art and textile workshop tour of Japan, Mar. 23-Apr. 10. Focus on Shikoku and Awaji Islands, city of Kyoto. Contact Ishimoto Tours, Inc., 150 Powell St., Suite 305, San Francisco, CA 94102. (415) 781-4350.
- ☐ Weavers' and Spinners' Tour of Australia and New Zealand, April 1-17. Tapestry workshops, weaving studios, sheep stations, textile manufacturers, museums, and a farm-hosted overnight in New Zealand. Led by spinner and weaver Jean Carlson. Turner Tours & Events, 1304 Columbia St., Lafayette, IN 47901.
- ☐ Brazilian Decorative Fiber Arts Folk Craft Tour, April and October departures. Guided by weaver/teacher Johanna Erickson. Tapestry symposium, visits to studios, workshops, and folk craft cen-

ters. Brazilian Views, 201 E. 66th St., #21G, New York, NY 10021. (212) 472-9539.

☐ Russian Voyage to the Great Tribal Carpet Centers, April 23-May 10. Museum tours, rug- and silk-weaving studios. Dr. Jon Thompson, Caucasian rug expert, study leader; sponsored by The Textile Museum. For information, contact Tour Designs, Inc., 510 H Street SW, Washington, DC 20024. (202) 554-5820.

□ Photo Tour of China, May 21-June 14. Sponsored by Craft World Tours. Contact Prof. Tom Wilson, 6776 Warboys Rd., Byron, NY 14422. (716) 548-2667.

☐ Iceland, Scotland, The Netherlands, and Norway, May 27-June 14. Visit sheep farms and cottage craft industry centers. Tour guided by two Pennsylvania sheep producers, Annette Menhennet (215-593-5726) and Caren Glotfelty (215-593-6876). For information, contact the organizers or Ina Lopshire, Travel Associates, Inc., 56 W. Eagle Rd., Havetown, PA 19083. (215) 449-4466.

☐ Peru Weavers' Hike, June (3 weeks). Customized tour just for weavers features 7-day trek with llamas through remote villages. Meet weavers, learn techniques, visit Cuzco, Machu Picchu, Titicaca. Guides in Peru are experts on weaving, archaeology, anthropology. For details, write Betty Davenport, 1922 Mahan, Richland, WA 99352. (509) 946-4409.

☐ The Ancient Weaving Worlds of Bolivia and Peru, July 5-17. Tour concentrates on pre-Columbian textiles; visits to museums and archaeological sites. Holbrook Travel, Inc., 3540 NW 13th St., Gainesville, FL 32609. Call toll-free (800) 451-7111; in Florida, (800) 345-7111.

☐ 4th Annual Arctic Experience for Fiberists, July 6-13. Sponsored by the Holman Eskimo Co-op. Hiking, native art and craft production, 5-day workshop on qiviut spinning, lichen dyeing, knitting and weaving. Contact Wendy Chambers, 21 Boxwood Cr., Whitehorse, Yukon Y1A 4X8 Canada.

☐ Australia Arts and Crafts & Textiles Tour, July 31-Aug. 17. Workshops, galleries, museums, sheep and goat stations. Holbrook Travel, Inc., 3540 NW 13th St., Gainesville, FL 32609. (800) 451-7111 or in Florida (800) 345-7111.

□Arts and Artisans of the World 1989 Tour and Talks. Custom designed for professionals and craft lovers. Includes special invitations to studios, homes and selected businesses. May: New Zealand and National Woolcraft Festival with Louise Bradley. August: Weaving arts in Scandinavia with Jean Scorgie. Sept. / Oct.: Needle arts in China and Minorities Festival. November: Asian fibers and fabrics in the making with Jan Folsom. For details: Mary Fletcher, Fletcher and Associates, P.O. Box 61228, Denver, CO 80206. (303) 692-9634.

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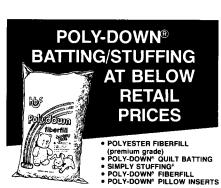
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GREECE: FOLK ART AND ANTIQUITIES, June 1989. Historic textiles, costumes, island embroidery; contemporary work of needle and loom; the renowned antiquities of Greece. Leader: Ruth Truett, Congress of Illinois Historical Societies and Museums. Contact: Dolphin, Inc. (Cathy Williams), P.O. Box 584, Elmhurst, IL 60126. Tel: (312) 834-6927.

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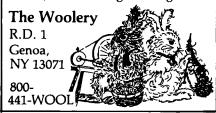
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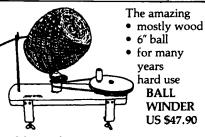


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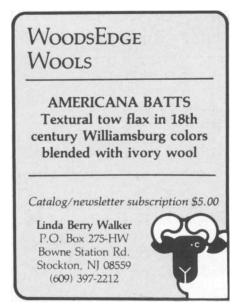


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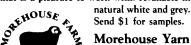
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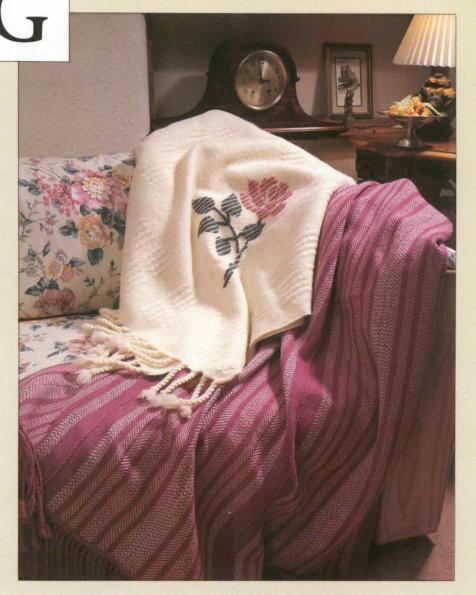


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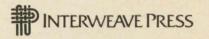
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COMMUNIQUÉ

March/April 1989

edited by Bobbie Irwin

For die-hard dyers

Maybe your favorite natural dye sources aren't available yet this spring, but there's more than one way to keep busy all year 'round. Get to know your local woodworker (particularly someone who uses a lathe). Many types of wood shavings make wonderful dyes, and your friendly local woodturner may let you cart off some really exotic dust and shavings for free (or almost).



Linen vs. wool

"Wool, the excretion of a sluggish body taken from a sheep, was deemed a profane attire even in the times of Orpheus and Pythagora; but flax, that cleanest production of the field, is rightly used for the most inner clothing of man."

-Lucius Apuleius Roman philosopher & satirist, 2nd century A.D.

Wool was probably a commonly used fiber for clothing in early Egypt, but examples have not been preserved. Linen clothing fabrics have, however, been discovered in archeological excavations. Linen was certainly considered a superior fabric, since wool was forbidden for religious use or for burials.

-Richard Glazier, 1923, Historic Textile Fabrics

Weaving johnnies?

Edmund Cartwright, seeing the need for more efficient weaving to keep up with an increased supply of yarn produced by new spinning machines and gins, invented the power loom in 1785. In conversation, he is reputed to have said, "Before long, we shall have weaving johnnies as well as spinning jennies."

Textile workers did not like Cartwright's "iron men". Weavers saw that this machine could weave more material in a day than they could produce in a week. Many of the first machines were destroyed.

—Lili Blumenau, 1955. The Art and Craft of and Weaving

What's fashionable in upholstery?

There's an unusually wide choice these days with upholstered furniture, as the fashionable style variations range from the formality of 19th-century parlors through the simplicity of country kitchen or porch to the ageless look of fine leather.

A fashionable interest in novelty conjures an image of an adventurous hostess entertaining in a room made to look like the inside of an Indian wigwam, a Parisian sewer or a 1950s American diner

The 19th-century style appears to be the way to go. Ellen Frankel, editor of 1,001 Home Ideas magazine, says that at the recent furniture market in North Carolina, there was a return to dressmaker details reminiscent of the Victorian era, with contrast welting, bows, beautifully detailed skirts, a slip-

cover look on furniture that is actually upholstered, and pleats and double ruffles.

Robert Herring, vice president of Schumacher, a fabric supplier to high-end furniture companies, also endorsed the 19th century as a treasure trove of ideas for today. His company is preparing a "Natchez" collection dominated by high-style Victorian—watermark silks, damasks, brocades, moires and velvets with embossed effects.

According to Sterling Collett, vice president at Drexel Furniture Co., more formality in fabrics is the watchword. Besides the damasks and brocades of traditional luxury, needlepoint and tapestry fabrics are growing popular—at the expense of casual stripes, plaids and textured fabrics that have been a mainstay over the past several years.

Among the most popular fabrications in the Drexel showroom last spring were upholstered pieces covered in medium green moire velvet and ruby red figured damask. Extensive multicolored fringe and braid trim were applied to the pieces.



For the future, Schumacher is betting on the ethnic look, "By and large," said Herring, "American consumers have become more sophisticated and are often influenced by museum exhibitions such as the Gauguin exhibition at the Smithsonian Institution."

Schumacher's ethnic collection will be based on Peruvian and Inca documents in the American Museum of Natural History. Its introduction in the fall of 1988 coincided with the opening of a new museum wing devoted to those cultures.

What's out? Mauve apparently is being recolored to look like rose in many fabric lines.

—Standard-Examiner, Ogden, Utah



Mary really did!

Sterling, Mass.—The Sterling Town Common has its obligatory memorials: a monument to its Civil War dead, a plaque for those who died during the American Revolution, a statue for local firefighters who perished in the line of duty.

And then there's the lamb, a tiny weather-beaten concrete lamb on a pedestal that commemorates a child's prank and a simple verse that has entertained children for generations:

> Mary had a little lamb, Its fleece was white as snow.

And everywhere that Mary went,

The lamb was sure to go.

Mother Goose may have created Little Bo Peep and Little Miss Muffet, but almost everyone in this picture-

THE HANDWOVEN COMMUNIQUÉ

postcard town in north-central Massachusetts knows that Mary and her lamb actually lived in a Sterling farmhouse on Maple Street. Their misadventure in school one day was immortalized in the famous rhyme by a visiting Harvard University student. And now that the statue commemorating Mary Sawyer Tyler and her lamb has fallen into disrepair, the Sterling Historical Society is committed to restoring that special part of the town's history.

"The little legs have crumbled away," said Ruth Hopfmann, the Historical Society's curator. "We want to put in something more permanent because we're proud that the poem was written here about one of our residents."

The lamb statue has fallen victim to a quarter-century of harsh New England winters. The concrete feet have eroded, exposing wire supports. Its white paint is chipped and peeling. There is rust on the simply worded plaque: "Born in Sterling. MARY (Sawyer) 1806–1889 And Her Little Lamb." The statue was dedicated in 1963 by New York businessman Alfred Altman, who spent his summers in Sterling.

"Some people don't even know that's what it's in the park for," said Sterling Town Clerk Lois Seifert of the statue. "They don't realize (Mary) lived in Sterling and her great-niece still lives here."

No one knows when the new statue will be placed on the Common. The historical society is still awaiting several price quotes for the replacement, Hopfmann said.

Most nursery rhymes read as though created during a moment of whimsical spontaneity. Unlike the philosophic and moralistic tone of Aesop's fables, nursery rhymes tend to be nonsensical worlds populated by blind mice, talking cats and clumsy eggs tumbling from walls. That "Mary Had a Little Lamb" was based on truth may explain why the poem is sweet, instead of silly.

Mary Sawyer Tyler, then 10, was headed to school one morning, only to find her pet lamb following her. At her brother's insistence, Mary put the lamb under her shawl and carried it into the Redstone District School. When the teacher called Mary to the front of the classroom to recite the day's lesson, the lamb trotted behind her.

It followed her to school one day,

Which was against the rule. It made the children laugh and play

To see a lamb in school.
John Roulstone, nephew of
a Sterling minister, heard
about the incident, wrote the
poem and presented it to Mary
the next day.

Sterling residents are quick to correct anyone giving credit for Mary's story to an outsider.

"The first stanzas were written here. Then somebody in New Hampshire picked up the thing and wrote the remaining verses, which aren't the common ones. I don't even know what the remaining ones are," said Seifert. "A lot of people think New Hampshire wrote the whole thing, but it didn't. Sterling's got the first verses everyone knows."

A magazine editor, Sarah Josepha Hale, published the poem years later, adding her own verses. Only in recent years has Roulstone gotten credit for penning the rhyme, Hopfmann said.

A number of Sawyers still live in Sterling, although Mary Sawyer Tyler moved to Cambridge after she married. During her lifetime she was better known for her work at a Cambridge mental institution than her childhood exploits with the lamb, Hopfmann said.

-Boston Globe

Name games

How lucky the weaver (and there are quite a few) whose last name is Weaver! But if your surname is Webster, did you realize that name is just as appropriate? During the 13th century, a woman weaver was called a webster.

Arabic textile laws

The absence of animal forms in many of the Arabic textiles is because of religious interdiction by the Sunni Mohammedans. A second more fruitful dogma forbidding the use of large quantities of silk, introduced by way of China and Persia, resulted in the unique weaving of stripes of linen with silk, often decorated, and of silk motifs on linen background.

-Lili Blumenau, The Art and Craft of Hand Weaving, 1955

The origin of poplin

The first record advertising pure silk warp and woolen worsted weft by weight equal proportions (wool, 40 threads per inch, silk 280-420 threads to the inch) appears in a Dublin newspaper dated 1704. It was, and is, a unique cloth, the outcome, ironically, of restrictions on the flourishing Irish woolen trade, which it was then feared might rival that of England's and so had to be curtailed. By weaving together silk and wool, the Dublin weavers cunningly produced a cloth which could not be termed "wool". Out of adversity came a cloth as beautiful as it was new.

—Gabrielle Williams, Ireland of the Welcomes, quoted in Irish Spinning, Dyeing and Weaving by Lillias Mitchell, Dundalgan Press, Dundalk, Ireland, 1978. (Thanks to Helen Hart, Cheyenne, WY)

PRODUCT NEWS

Harrisville Designs will introduce a new countermarch rug loom at the Conference of Northern California Handweavers this spring. This loom, developed with the assistance of Peter Collingwood, has a weighted overhead beater, is constructed of mahogany and rock maple, and has a weaving width of 45". It has a smooth countermarch action with an easy tieup and a large shed, and is equipped with a special warp extender-tension equalizer which allows a weaver to unroll enough warp for a rug, tie it on, and tension each end as necessary. The loom also can be operated conventionally. The Collingwood Shaft Switching Mechanism is offered as an option. The Harrisville Rug Loom will be available in limited quantities this spring from any Harrisville Designs dealer.

Other notes from Harrisville: Back by popular demand are their Royal, Emerald, and Azure yarn colors (in all weights except Designer).

Harrisville has redesigned their ski shuttle with Peter Collingwood's help. They have added an 18" version to their original 24" ski shuttle and now make a little 6" stick shuttle.

For information on any of these products write Harrisville Designs, Harrisville, New Hampshire 03450.

The Loompal Company will begin production of loom covers in May 1989. These covers will protect your floor or table loom from sunlight, dust, house pets, and small hands. They are made of a medium-weight cotton blend and are designed to fit most looms. Custom covers are also available. For information write The Loompal Company, Wendy and Lee Hamilton, 8113 Indian Paint Brush Rd., Bozeman, Montana 59715, (406) 587-8260. Wholesale and retail inquiries are wel-

The Real Ewe has a new loom and wheel registry service where spinners and weavers can register used equipment to sell or swap. To register call toll free 1-800-622-3025, or write The Real Ewe, 40 East Main, Bozeman, Montana 59715.

IDEAS IN WEAVING

Ann Sutton and Diane Sheehan Photography by David Cripps

81/2 x 11, 160 pages, full-color photography, \$29.95, hardbound

Ann Sutton and Diane Sheehan have broken new ground with this gorgeous sequel to The Structure of Weaving.

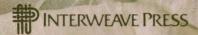
By examining historical, contemporary, industrial, and primitive weaving processes, they show how it's possible to create the seemingly impossible in woven cloth.

From discussions on making your own yarn without spinning, to incorporating floats in warp and weft, to combining fibers for unexpected effects, to chenille weaving, *Ideas In Weaving* trains you to think in terms of breaking rules, finding new ways of adapting equipment, and rediscovering neglected properties of yarns and fibers to create ingenious cloth.

A thoughtful introduction by Japanese designer Junichi Arai defines this book's importance to the international world of craft. Stunning full-color photographs throughout stimulate creativity and ignite the imagination.

If you have a basic knowledge of weaving and shaft-controlled weaves, *Ideas In Weaving* is a must for your library. Send for your copy today! Available in April from your weaving source and from Interweave Press for \$29.95 plus \$3.00 postage.

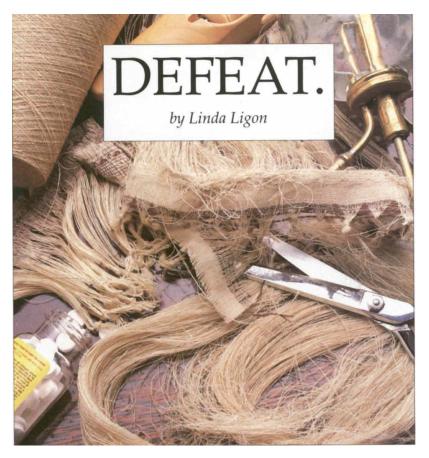
To order, please refer to the catalog insert inside this issue of Handwoven.



COMING UP IN HANDWOVEN

May/June/July 1989

- Weaving with the children. This great big
 Show and Tell is packed full of ideas, stories, and techniques of how and how not to teach weaving to children—all contributed by our HANDWOVEN readers, their children, or their students. Also included will be a few projects by the kids themselves. You're bound to be as impressed as we are.
- ☆ Summer weaving.
 Simple summer projects to weave during the warm months. Warp up your loom—and weave.
- ☆ Kathryn Wertenberger unblocks satin: multishaft weavers take note.
- ☼ Shoulder pads can give a simple garment shape pizzazz, but choosing the right shoulder pad design is crucial to achieving the stylish shape you seek. Charlene Anderson-Shea will tell you what you need to know.
- ☆ A summery basket. Robin Taylor Daugherty's western Cherokee doublewalled basket will delight you with its usefulness and novel construction.
- *☆ Three-shaft weaves.* Why less is sometimes best.



AM CONFOUNDED. Thwarted, conquered, vanquished, licked, lathered, clobbered. I am outdone. Whipped. And all by a cone of yarn.

I bought this cone of yarn several years ago, thinking what a neat challenge it would be to weave a really, really fine fabric. The yarn is a 62/1 unbleached linen, fragile and fine as frog hair. But it never occured to me that I couldn't make it work. When the yarn purveyor wrote up the ticket, he said, smiling unctuously, "Let me sell you a bottle of this warp glue, too. You'll need it." That should have been a clue.

I thought about the yarn off and on for a long time, imagining the diaphanous fabric I would weave, imagining how patiently and perfectly I would make my warp, imagining how expertly I would flip my dainty shuttle through my perfect shed. It was one of those "someday" projects that was fun to think about, but that I felt no compelling urge to get after. But when our administrative assistant, Karen Evanson, gave me the lovely linen hand-

kerchief shown on page 67 for Christmas, I thought, "I could do that, too." After all, I've been weaving three times longer than Karen, and her thread, a 100/2, was similar in weight, and she did such a lovely job. So I set myself the task of weaving a handkerchief out of my linen. A Bronson lace handkerchief with wide, mitered, plain-weave hems.

That the yarn snapped as I measured off the very first bout was ominous. But knowing that linen is stronger wet than dry, I steamed the whole cone thoroughly and proceeded with no further problems.

That my bifocals couldn't see the thread and the heddles simultaneously was a hindrance, but not much of one. I figured a way to hang my chin on the beater bar just the right number of inches away, and threaded all 900 ends with no mistakes.

That I literally wore out my favorite plastic reed hook while sleying the first time should have signaled that the task was not for the faint-hearted. But I sleyed-away,

and had to fix only a couple of crossed warps.

That nothing happened when I treadled the first shed, no threads lifted at all, well, that was discouraging. I began to suspect that I had my work cut out for me. The tiny hairs protruding from the unsized warps were grabbing each other so desperately that nothing would move. I found that I could pick the shed apart with my fingers, though, so I tried weaving a few picks that way. Oh, dear. Maybe my 80 e.p.i. sett was too close. I cut off and resleyed to 60.

This helped a little; when I treadled, a few threads would lift, while the others continued to huddle together in little matted clumps. I was keeping the warp quite damp to strengthen the fibers. Although this lent tensile strength, it also exacerbated the matting problem. Perhaps I should size the warp after all?

I cut off the mess I had made and tied on again. I lifted each shaft in turn, painted a weak solution of glue sizing on the raised threads, dried it with a hair dryer, went on to the next shaft. Indeed, the adjacent threads no longer grabbed each other. Now they simply snapped because they were so brittle. I repaired everything and misted the warp thoroughly to strengthen it, whereupon the glue, of course, glued it all together irrevocably.

So I have the remains of this cone of yarn. I will send it to the first taker on these conditions: that he or she weave something with it within a month, or send it back for the next foolhardy soul. That he or she provide me with a sample of whatever successful fabric is produced. That he or she share his or her secrets of success. Here are some hints that might or might not help: String heddles. Counterbalance action. Paraffin. I'll wait for the requests to pour in

Linda Ligon is publisher of HANDWOVEN and editor of The Herb Companion. Her leisure-time weaving projects sometimes come out well.

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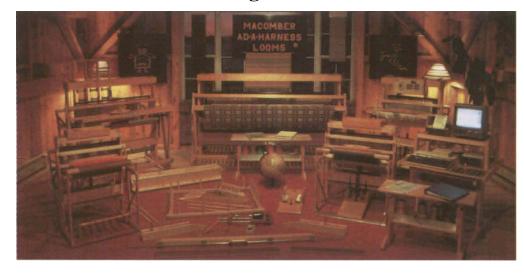
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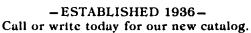
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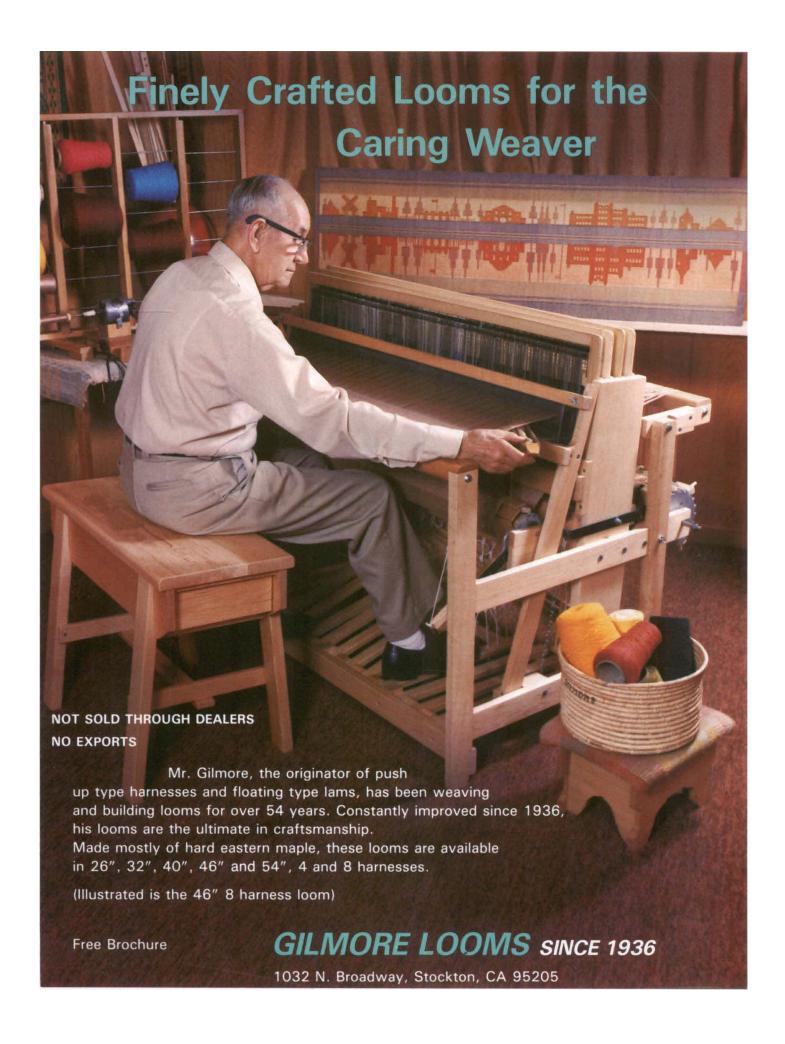
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Sheila O'Hara, Oakland, California

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O'Hara weaves with four layers of warp employing a spectacular mix of multi-colored woolen rug yarns and metallic threads to



Only My Palm Reader Knows for Sure, three-dimensional wallpiece with columns.



produce works that have been hung in galleries, corporate offices, and homes throughout North America.

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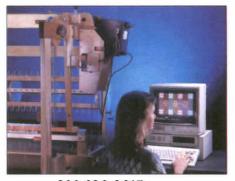
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