
Shuttle Craft Guild
HANDWEAVER'S
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The Shuttle Craft Guild
 HANDWEAVER'S BULLETIN
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DRESS FABRICS with LINEN - - - - -	2
BLACK SILK-AND-LINEN SUIT FABRIC - - - - -	2
A LIGHT WEIGHT BLACK LINEN FABRIC - - - - -	6
AN ORLON-LINEN BLEND FABRIC - - - - -	8
FORTY HANDWOVEN TEXTILES FROM JAPAN - - - - -	11
BOOKS by Rauha Aarnio, Finnish - - - - -	13
CHANGES in LILY MILLS YARNS - - - - -	13
THREADBENDER News Letter - - - - -	15
PORTFOLIO, three samples: Silk and Linin Suiting, Light Weight Linen, Orlon-Linen with Metallic.	

Here is a quotation from a letter recently received from one of the country's outstanding designer-weavers and weaving teachers, who has been a career-woman in the handweaving field for almost thirty years. This weaver of vast experience attended one of the recent seminars given in Los Angeles. It is quoted because its spirit can be helpful to any handweaver attending any weaving class, workshop or seminar during the summer. "It was a real treat for me to leave my own orbit and dwell in someone else's for a while. One 'new' weaver asked me what I expected to get from the Seminar, and I answered, 'If I can't absorb something, then I have indeed lost touch; when we ever think we know it all and can no longer learn, then is when we cease to advance.' Heaven forbid! Just the wonderful fraternization with one who is in the field is enough to ever expect from any association, let alone many points that are touched upon. Then again, being on the receiving end is in itself a good lesson." This philosophy of openmindedness has kept this weaver's work vital and progressive. Let us all remember that there is no situation from which valuable lessons cannot be learned.

DRESS FABRICS with LINEN

Spring days bring to mind crisp linen dresses for summer wear. For the handweaver this may provide a new challenge. Although cottons, woolens and worsteds for clothing fabrics are part of many handweaver's regular loom programs, not many have discovered the charm of weaving linen for dresses.

Perhaps in this day of processed fabrics, when linens are finished for crease resistance through patented processes, we think with little favor of the pure linen fabric which must be pressed for each weaving. But even though the commercial processing is outside the reach of the home textile maker, there are other ways for reducing the crushability of linens. Thus, fabrics with resistance to extreme crushing have been the subject of several Shuttle Craft Guild experiments recently.

Crease resistance (this does not mean total elimination) has been developed in one fabric by combining silk with linen. Another satisfactory fabric was made of a blend yarn which combines 50% linen with 50% orlon. Another light weight, almost sheer linen was simply starched to give it crispness and help it retain its freshness. Detailed directions for these fabrics are given in the following pages, and samples of all three are included in the PORTFOLIO.

BLACK SILK-AND-LINEN SUIT FABRIC

This project, planned for a black suit for summer travel, was woven, made up into a sheath-dress with jacket, and actually worn on a trip as a complete test. The material proved to be firm and heavy enough that it did not sag or stretch when worn. It is rough enough that superficial wrinkles are not conspicuous. Best of all, after a long day's wearing the wrinkles hung out over night so the appearance

was fresh the next morning. A thoroughly practical suit fabric, we felt, and very handsome.

Warp material: 7/1 linen and 14/1 linen, in black. This was Davis Cordage linen which is no longer available, but Frederick J Fawcett linen in 8/1 and 16/1 would serve as well. The weaver who does not wish to run any risks of warp trouble sometimes resulting from the use of a singles linen warp, can substitute 40/2 and 20/2 linen. This may be set the same as the fabric of the heavier, singles linen, to give a lighter weight fabric, so closer for a firm fabric. Directions for both will be given below.

Weft material: Dupioni silk, black, from Robin and Russ, Handweavers, 632 Santa Barbara St, Santa Barbara, California. This came on a 2-pound cone, which would have woven about nine to ten yards. Dupioni silk is the silk which comes from double cocoons made by two silk worms. These are faulty cocoons which cannot be unwound for the high-quality thrown silk, so the fibers are processed on the cotton spinning machines. The yarn is rough and slubby, very pleasant in texture and easy to use.

Warp arrangement: The warp is arranged, 3 heavy threads, 4 fine threads, repeated throughout. Three heavy threads are added to make the left selvage firm. An irregular sley is used in a 10-dent reed which makes a set of $23 \frac{1}{3}$ ends per inch or 70 ends in three inches. The warp was made 33 inches, plus 3 threads wide, requiring 440 fine threads and 333 heavy, a total of 773 warp ends. The draw-in and shrinkage amounted to a little over four inches leaving a twenty-nine inch wide fabric.

If 40/2 and 20/2 yarn is used, it may be set in a 12-dent reed at 28 ends per inch. This will require 387 heavy ends and 512 fine ends, a total of 899 warp ends.

The use of a singles linen finer than 16/1, in a bleached or dyed, cannot be recommended, although some experienced weavers handle 20/1 successfully.

Threading and Tie-Up:

4	4	4	4			14						
3		3		3	3		4				4	
2	2		2		2	3	3	3	3	3	3	
1		1		1	1	2	2		2	2	2	
	1	2	3	4	a	b				1	1	
							2	2	3	2	2	3

The heavy warp ends fall in groups of three, on harnesses 2, 1, 2, and 3, 4, 3, as indicated by the circled threads on the draft.

Sley: For 7/1 and 14/1 linen, or 8/1 and 16/1 linen, use a 10-dent reed. Sley the group of three heavy threads in one dent, the fine threads at 2 per dent for two dents, and repeat throughout. For 20/2 and 40/2 linen, a 12-dent reed may be used, sleyed in the same manner.

Weave: Use the Dupioni silk throughout for weft. Throw one shot in each shed in the following shedding or treading order: 2, 1, 2;
3, 4, 3;
repeat throughout.

As with so many weaves, the treading order follows the threading order. In this case, only the heavy warp ends are duplicated. However, it is quite possible to duplicate the entire threading in the treading order by

using tabby a where 3 occurs in the draft, and tabby b where harness 4 occurs: 2, 1, 2; a, b, a, b; 3, 4, 3; b, a, b, a; repeated throughout. This will give a lighter weight fabric with less texture emphasis. It is also possible to weave the entire fabric with linen the same as used for warp, throwing heavy linen on 2, 1, 2, and 3, 4, 3, and fine linen in the tabby sheds. Beat sharply to form a firm fabric. If

the all-linen suggestion is followed, it should be beaten for an exact warp-weft balance. The weave given first arranges like the diagram at left. However, after the fabric was washed, the two and three-thread floats in heavy stripes caused the

warp ends to draw together to form a length-wise cord.

Special Problems: No problem developed during the weaving except that which would be expected from the use of a singles linen warp. The linen is fuzzy and rolls and balls of fuzz will collect in the shed between the heddles and the reed, causing warp breakage if nothing is done to prevent it. The solution to this problem is sponging the warp with a thin solution of starch. This is easily accomplished by going over the warp back of the harnesses and between back-beam and warp beam, with a large plastic sponge dipped in starch solution. The warp may be woven either wet or dry. The old-fashioned method of keeping the warp wet during the weaving is also satisfactory, though messy and hard on the loom.

Finishing: After the yardage was removed from the loom and all loose ends darned in, it was soaked in clear water for a few hours, then dried, and taken to a cleaner for pressing.

A LIGHT WEIGHT BLACK LINEN FABRIC

Warp materials: Black linen 14/1 with a hair-line of 7/1 (or 16/1 and 8/1) to give warp strength and texture interest.

Weft material: Black linen 14/1 (16/1 if that is used for warp) was used throughout, although a cross-bar variation could be made by substituting a shot of 7/1 to correspond to the 7/1 in the warp, or at some other regular interval.

Warp arrangement: 4 ends 14/1, 1 end 7/1, repeated throughout. An irregular sley, again, gives $16 \frac{2}{3}$ ends per inch, or 50 ends in three inches. Thus, a 33 inch wide warp has 550 ends, with one extra heavy thread added at the left selvage. Extra selvage strength may be gained by placing two heavy ends at each edge. There are 440 ends of 14/1 and 111 ends (or 113 ends) or 7/1.

Draft: Since this fabric is woven in plain tabby throughout, it may be threaded to 4-harness Twill. Our fabric was made on the warp prepared for the previous textile by carefully cutting out the heavy warp ends threaded on harnesses 2 and 3. These were pulled out at the warp beam and wound around a heavy stick which was laid on the floor back of the loom. At intervals through the weaving they were wound up, so they would not tangle with the remaining warp. A pure emergency measure, but sometimes useful when one wishes to vary a warp design.

Sley: Use a 10-dent reed. Sley the heavy linen single in the dent, and the fine linen at 2 per dent.

Weave: If the threading is Twill, treadle a, b alternately throughout for a tabby fabric. If the weaving is done like ours, on the first threading with the pairs of heavy threads removed at the points, the tabbys will be made by tying harnesses 1-2 and 3-4, instead of the conventional 1-3 and 2-4.

Problems: Because this warp is so widely set, there is practically no friction between warp ends during shedding, and no fuzz develops. However, should there be a fuzz problem, it should be handled as suggested above.

Finishing: This yardage was starched quite strongly to add crispness. The ironing of the all-linen is made much easier, as mentioned in the April BULLETIN, if one uses boiled starch and adds a tiny bit of parafin to the starch.

Variations: A simple variation of this fabric suggests itself, but was not tried. This is the substitution of Laminette (a metallic cord which Hughes Fawcett supplies in black and a variety of colors) for the heavy linen.

A variation which was tried was the weaving of a Roman Stripe fabric of heavier texture, for a jacket to wear with the black linen dress. Six colors of 7/1 linen were selected (this was actually an odds-and-ends project, as it seemed advisable to use lift-over bits of 7/1 Davis Cordage linen since the line is now discontinued). These were arranged in a set order (experiment a bit to discover pleasant color relationships) by lining up the six shuttles on a loom-side table at the left.

The shuttles were then picked up from the back and laid down at the front, always an even number of shots thrown so that the sides do not shift. A stripe of about $1\frac{1}{2}$ inches was woven with the farthest shuttle. Then six different color stripes, in shuttle order, one-eighth to one inch wide. Then another wide stripe, one and a half, to two inches, and six more narrow ones. A pleasant arrangement was thus made of wide and narrow color bands, with the same color order retained throughout both in the simple succession and in the succession of wide stripes. The effect is irregular, but organized. This was beaten sharply to give a firm fabric.

AN ORLON-LINEN BLEND FABRIC

This summer dress fabric utilized a new blend yarn of orlon and linen which is available from Joseph D Acton, 26 Lake Avenue, Swedesboro, New Jersey. The yarn is available in natural color only, has about 5400 yards per pound, and is put up on half-pound tubes at \$4.50 per pound. This is a very strong material, and regularly spun, though single ply. It seems harsh in the thread, but like all-linen, softens with washing, though it retains more harshness than linen does. The linen filaments which extend from the orlon core create a great deal of friction in shedding, when close warp settings are used with a tabby weave. Acton suggests warp settings of 30 to 36 ends per inch, but we found that much more pleasant settings were 24 ends per inch for fairly open, lace weaves, and 27 ends per inch for firm tabby. Even so, the warp set at 27 ends per inch had to be woven soaking wet to facilitate shedding, and the 24 per inch setting wove more easily when damp. The 27 per inch setting was made by sleying 1, 2, alternately in an 18-dent reed. The weaving would be easier if the sley were 3 per dent in a 9-dent reed.

The fabric was designed for a very full skirt, to be made up either cross-wise, with the weft stripes up and down, or in three panels with the stripes running around. It is a fabric which a teen-age visitor called, "simply dreamy".

For weft pattern we used Metlon 1/64 unsupported metallic in an assortment of colors. This metallic is stocked by Joseph Acton in twelve colors, as well as gold, silver and copper. Although it is available on 1/4th pound tubes with almost 3,000 yards per tube, the most advantageous way to purchase it is on the little 65¢, 1,000 foot tubes, since these will fit into a shuttle and may be used as a bobbin. Weavers soon find in weaving with unsupported metallics that their greatest drawback is in the uncontrolability of hand-wound bobbins. The machine-wound tubes unwind perfectly, and cause no trouble if used in a small shuttle with a solid bottom. The colors are beautiful.

Draft and Tie-Up: Swedish Lace technique.

28											
4	4	4	4	4	4	4	4	4	4	4	Thread
3	3	3	3								selvage
				2	2	2	2	2	2	2	1, 4
											alternated.

4		4		4
3	3			
2				2
1				
	1	2	3	4

Sinking Shed

4	4		4	
3		3	3	3
2	2	2	2	
1				
	1	2	3	4

Rising Shed

Sley: 27 ends per inch. 3 per dent in a 9-dent reed or 1, 2, alternately in an 18-dent reed.

Weave: The traditional Swedish Lace is woven on this tie-up by following the threading order in the treadle use: 1, 2, 1, 2, 1, 4, repeated; 4, 3, 4, 3, 4, 1, repeated.

However, a variation of this, using two shuttles was used for the skirt fabric. For the pattern, a metallic shot was thrown on the treadle 2 and 3 sheds, and the groupings were irregular. The main fabric was woven in tabby, on treadles 1, 4, alternated. This technique was selected for the metallic borders because no floats of pattern weft occur on the right side of the fabric, and the metallic is completely hidden at pattern intervals by a group of warp floats. These warp floats serve also to draw the metallic areas together at the ends, when two or three pattern shots are grouped, to give slightly curved lines. The warp floats are too long if groups of more than three shots are used together.

For the stripe used here, Metlon in five colors was employed: Fuschia, **Jet**, Arctic Green, Royal Blue, and Orchid. The border was woven as follows:

Treadle -- 4, orlon/linen
 3, fuschia metlon
 4, 1, 4, 1; orlon/linen
 2, jet metlon
 1, 4, 1, 4, 1, 4; o/l
 3, arctic green
 4, ϕ /l
 3, arctic green
 4, o/l
 3, arctic green
 4, 1, 4, 1, 4, 1, 4, 1; o/l
 2, royal blue
 1, 4; o/l
 3, fuschia
 4, 1, 4, 1, 4, 1; o/l
 2, orchid
 1, ϕ /l
 2, orchid
 1, 4, 1; o/l
 2, royal blue
 1, 4, 1, 4; o/l
 3, arctic green.

Then weave one and a half inches (or as desired) of plain tabby, on treadles 4, I alternated, using the orlon/linen. For good effect, this fabric must be beaten for a perfect balance.

BOOKS for WEAVERS

I've just had one of the most remarkable experiences which could come to any handweaver, and it is an experience which just thirty-three other handweavers may share. I have spent a day engrossed in a portfolio entitled FORTY HANDWOVEN COTTON TEXTILES FROM JAPAN. The portfolio was sent to me by Mr Boris Veren of the Craft and Hobby Book Service, Coast Route, Monterey, California, from whose letter about it I quote. "This is from Kyoto (ancient capitol of Japan, where I'm told there is a large body of craft lovers who maintain the ancient pure traditions), and is a collection of 40 plates, each having mounted on it a generous SWATCH (about 6½ x 8 inches) of handwoven Japanese cotton weavings. I have never seen such beautiful weavings in my life. They are in style like those Okinawa textiles in the Tanaka book (A STUDY OF OKINAWAN TEXTILE FABRICS, by Toshio and Reiko Tanaka, Tokyo, 1952). The plates are in Oriental style, cloth covered box with bone clasps. Only 50 were made up, 35 for export, and I am ordering all of them." There is no text." A later note says that Mr Veren has learned that there will be one page of text preface. Knowing Mr Veren to be a judge of discrimination, I wrote asking to buy his sample copy. (The price will probably be \$28.00, though this is not definite until shipping costs, insurance and duty are determined.) It came by return mail, with this note, "I am going to loan you my only copy now. If my shipment doesn't come thru -- and by that I only mean, if the boat sinks with its cargo -- I would want, selfishly, the copy for myself. But don't think you have anything to fear. I hope your enthusiasm matches mine."

Well -- my enthusiasm exceeds his, if possible. As one who has been enthusiastic about the Okinawan portfolio of photographic plates, it has been a wonderful experience seeing these same textiles come to life, in glowing samples. Nine of the samples are identical to the Okinawan (#1 is 0-31, #9 is 0-42, #12 is 0-7, #15 is 0-46, #19 is 0-44, #23 is 0-36, #31 is 0-45, #34 is 0-41, #36 is 0-34), but the textiles are so much more beautiful than the color pictures that it is almost difficult to compare them.

Most of the textiles are of very fine cotton, set at 60 to 90 ends per inch. There are, however, six swatches which show interpretations in coarse cotton at 24 to 28 ends per inch. Only two basic techniques are illustrated: plain weave, and warp pattern weaves. Most of the designing is in plaids (asymmetrical and unbalanced) stripes, Log Cabin, and tie-dye or ikat. Every sample has one selvage edge. There is a lesson in color harmony and designing to be learned from every sample.

We feel that the spirit of many of these textiles can be achieved reasonably with the 30/2 mercerized cotton carried in a lovely color range by Joseph Acton. Therefore we have ordered sufficient of this material, in eight colors, for a long-warp project (45 yards, 30 inches wide, 45 ends per inch) for summer weaving, and you will hear more of it in a future Bulletin. The ikat can be handled easily with textile paints instead of by tie-dye.

I am grateful that Mr Veren has given Shuttle Craft Guild members an opportunity to make advance orders for this rare and remarkable portfolio. It is costly, but to the person interested in this phase of textiles, it will be valuable far beyond its price.

JUSTIA MATTOJA JA RYIJYJA, by Rauha Aarnio, Helsinki, 1955, \$4.50. This is another in a series of attractive Finnish books on decorating fabrics by Rauha Aarnio. Devoted to handwoven rugs in many styles, the rug weaver will find inspiration in the illustrations. There is considerable text which the English-speaking weaver might be able to translate roughly with the help of the Finnish-English Weaving Glossary by Aina Ringler, reviewed in the April BULLETIN. (Paper covered)

Other similar books by Aarnio are KAUNIS MATTO, 1951, also on wool rugs, and KAUNISTA KANGASPUISSA, 1951, on upholstery fabrics and coverlets. All of these are available from the Craft and Hobby Book Service, Coast Route, Monterey, California.

CHANGES in LILY MILLS YARNS

Handweavers who like to order as many materials as possible from a single source are finding the Lily Mills yarns increasingly adequate. Lily Mills is plainly trying to provide for the handweaver whatever he wishes in sufficient quantity to make it worth while stocking. Two additions to the general stocks have been made recently. First is Chenille in three sizes, eighteen colors in each. The 6-cut is the average size which is generally used in draperies, window blinds and lamp shades. It has 400 yards per pounds. The heavy, 3-cut chenille should be useful for rugs and bath mats, and has 225 yards per pound. A very fine, 12-cut, with 1560 yards per pound, has interesting potential. We have just received a shipment of 6-cut chenille in beautiful colors, planned for a bedspread project. Since so many heavy materials actually measure out to much less yardage than the advertised amount, our first step was to measure one pound to see if our quantity estimates were adequate. We measured 420 yards, which is pleasant leaway.

Another new Lily Mills offering is single-ply woolen yarns in three sizes. These are homespun type, virgin wool, on 4-ounce tubes. The heaviest has 2400 yards per pound, about 8-cut or 1½-run, in seven colors, called Tweed. The medium weight is 2-run, with 3300 yards per pound, in eight colors, called Suiting Yarn. The finest is Lamb's Wool, 2½-run, with 4000 yards per pound, in ten colors. We have just received an order of all three sizes and will not attempt to make any suggestions regarding it until experiments have been run, but the yarns look beautiful and we shall approach them without any hesitation.

In keeping with their program of adding yarns which weavers seem to want, Lily Mills is also discontinuing several types which move very slowly. Nylkara is now discontinued, as is Article 514, the heavy, stranded filler. Article 914, the 20/6 Soft Twist is being discontinued, but there is still considerable stock left. This is a delightful pattern weft yarn which at one time we used in considerable quantity. The last few years we have substituted the pearl floss, Article 114, which is the same size, because of the magnificent color range, and other weavers must have done likewise. We regret the discontinuing of Nylkara, which was one of the pleasantest of synthetic yarns, but the situation seems to reflect a trend which other yarn manufacturers have also noticed. Although there is a great flurry of buying whenever a new synthetic or blend yarn is introduced, this soon reduces into a trickle of orders. The interest is in the novelty, whereas actual use is apt to be a disappointment. The synthetics are weighty, have a strong tendency to fuzz, come in less enticing colors, and most important of all, have a "dead" feel and give a rather lifeless textile. The more one works with synthetics, the more one enjoys natural fibers, in most cases.

My dear Handweaver:

There have been so many serious weaving problems I have wanted to give in the past six months that the "Threadbender" notes have been a bit neglected. May, with a touch of spring fever in the air, seems a good time to pick up a bit of chatter.

A couple of weeks ago my favorite columnist started his daily article with the announcement, "For the purposes of celebration, this is National Arts and Crafts Week, National Conservation Week, the Spring Festival of Gas Ranges, National Boys' Club Week, Cereal and Milk Spring Festival, also Honey for Breakfast Week. This gives everybody a chance to celebrate." It may give everyone a chance to celebrate, but it hardly seems that handweavers need the promotion of an Arts and Crafts week. If we did, I believe we would all put it six months earlier. In the fall the loom is dusted off, and the books and sample cards brought off the shelves, while at this time of year who can keep his mind from wandering to tulips and redbuds, and who doesn't like to break away from a loom even for a splash of spring rain?

The first of March we (meaning Martin, Mrs Wilma Widener, and me) had a delightful and hard-working five-day interlude in Los Angeles. Our chief occupation was eight Seminar sessions in the studio of Dorothea Hulse, and a day with the Southern California Handweavers' Guild. The vitality of this Guild is amazing, due without a doubt to the high type of leadership it has had since its organization, and the untiring efforts of most of the members. All of the members seem to be working participants instead of merely meeting-goers. One part of the Guild program might well be copied by other Guilds. This is the "Study Session" held on Saturday morning before the regular Saturday afternoon meeting. Sometimes the study session is conducted by a Guild member, but when there is an outside speaker for the afternoon

this speaker usually conducts the study session. Thus, those weavers who really want to learn something new, have a fine opportunity in this two-hour study or demonstration period which is conducted informally. (A contribution of \$2.00 is collected from each one attending, for the treasury. A good idea too.)

The Shuttle Craft Guild has just lost a two-month summer student in the pleasantest possible manner. Miss Ruth Wheelock, who has been a student several summers and planned to return for all summer, flew out from her Michigan home during spring vacation and purchased a home here in Buckingham Park. This summer she will certainly be busy housekeeping, and entertaining in her new "dream house", which it certainly is. And when she retires, we shall have her as a permanent neighbor. I hope that this is just the first step toward a group of weavers in Buckingham Park.

We are extremely proud of the achievement of Nathallie Fitzgerald, former Shuttle Craft Guild assistant, in winning two purchase-prizes at the Northwest Craftsmen's 1956 Exhibit at Seattle. One of Nathallie's textiles, an all-alpaca raincoat fabric, black, grey and tan, was used as the Exhibit Catalogue cover and as the background drape for the jewelry and silver-smith award photographs. It is a simple, though very sophisticated fabric woven in two-block Summer and Winter, three units per block, woven in checkerboard pattern with the x and y tie-downs alternated. The acclaim which this textile has received is another indication of the current trend toward achieving sophisticated, modern-spirit textures through the masterful handling of technique rather than through mixing fancy threads. The texture is deep and dramatic, though all threads are the same, and are smooth.

Sincerely yours,

The Shuttle Craft Guild
Kelseyville, California

Harris Tidball

Membership with BULLETIN, \$7.50 a year; with the PORTFOLIO-edition BULLETIN, \$17.50 a year.

