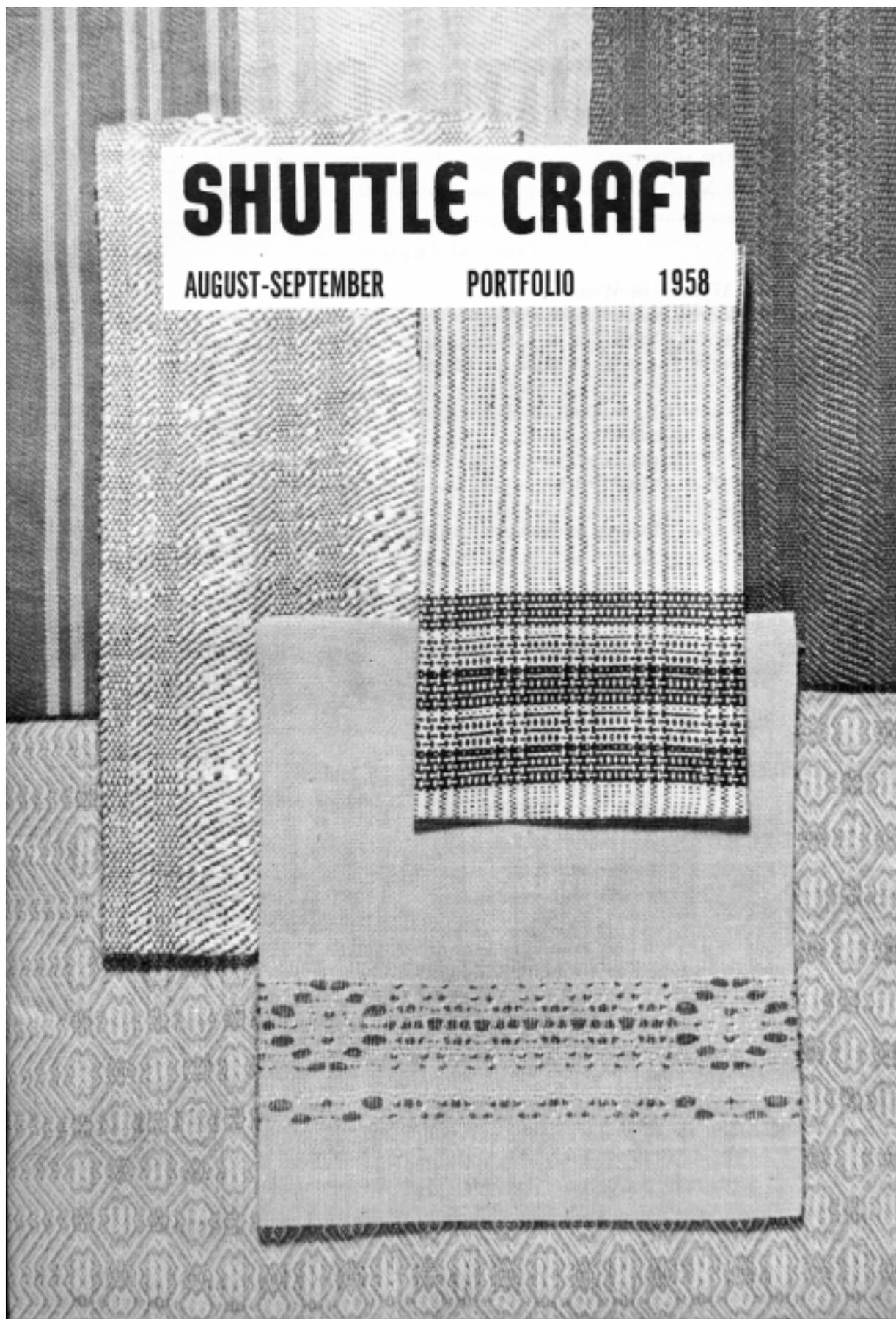


SHUTTLE CRAFT

AUGUST-SEPTEMBER

PORTFOLIO

1958



SHUTTLE CRAFT

THE MONTHLY BULLETIN OF THE SHUTTLE CRAFT GUILD
Volume XXXV, Number 8-9 Bedford, N. S. August-September 1958

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Cover: Weaving with Linen, by Mary E. Black

The Shuttle Craft Guild was founded in 1922 by Mrs. Mary M. Atwater and operated by her until 1946. Mrs. Martin (Harriet) Tidball was owner-director from 1946 to 1957. It is now owned and operated by
Miss Mary E. Black and **Miss Joyce Chown**
Bedford, Nova Scotia, Canada

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Boris Veren—Book reviews—Coast Route, Monterey, California

Photography

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includes woven samples of some of the textiles for which
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From Weaver To Weaver

Dear Guild Members:

We'd like to start this month off with some odds and ends of information that we have to pass on to you—some of which are new and some old.

Probably the most important is that we now have Part I of the revised Correspondence Course ready for distribution. Part I, containing 10 lessons, will cover the basic steps in dressing the loom; identification of yarns and threads; experiments with color and design; 2-harness weaving—plaids, checks, stripes, warp rep, weft rep.

Part I of the Correspondence Course will be followed by Parts II through VI which will include 4-harness weaving and multiple-harness weaving; drafting; designing; tapestry techniques; Scandinavian rug techniques; etc. We will let you know when each new Part of the Course is available.

All lessons will be based on Miss Black's NEW KEY TO WEAVING.

The cost? \$35.00 for each Part, of 10 lessons each. This fee will include criticism of the lessons and the awarding of a Certificate upon successful completion of each Part.

The lessons will give a sound and thorough knowledge of handweaving and, we think, will be of great value to any weaver in preparing for whatever type of weaving he or she may plan to do. We know, for example, that Canadian weavers will find the Correspondence Course of great help to them in preparing for their Guild of Canadian Weavers tests.

We have already sent out information and application forms to members who have written to enquire about the Correspondence Course. If you haven't written us and would like to start on Part I of the revised course, we will be glad to send you any information we can on the subject.

By the time this issue of SHUTTLE CRAFT reaches you, the robins will be starting their annual flight to the south. And you may be interested to know that we have got our own Round Robins off the ground and started on their way.

For new members who may not know of this Shuttle Craft species of robin—we refer you to the February 1958 "Weaver to Weaver". And for members old or new who would like to join a Round Robin, send us a letter and let us know your special interest in weaving. Then as soon as we have enough interested people again, we will start another Round Robin on its way.

For some months now, we have been making "Special offers" to new subscribers. They are as follows:

Offer No. 1

Guild membership for one year which includes:

SHUTTLE CRAFT bulletin, regular edition (10 issues per year for 1 year)

HANDWEAVERS' REFERENCE, by Mary E. Black

WEAVERS READY REFERENCE TABLES

} \$7.50

Offer No. 2

Guild membership for one year which includes:

SHUTTLE CRAFT bulletin, portfolio edition with samples (10 issues per year for 1 year)	}	\$17.50
SHUTTLE CRAFT Annual		
HANDWEAVERS' REFERENCE, by Mary E. Black		
WEAVING FOR BEGINNERS, by Mary E. Black		
WEAVERS READY REFERENCE TABLES		

Offer No. 3

Offer No. 2 plus autographed copy of new **KEY TO WEAVING** by Mary E. Black **\$29.00**

These offers will not be in effect indefinitely but will be in effect to the end of this year, so do keep them in mind when you are thinking about Christmas presents for weaver friends this year. The new members will receive the bonuses mentioned above, and for each new member you recommend, you will receive \$1.00—for a new regular edition subscription—or \$2.00—for a new portfolio edition subscription. There is no limit to the number of new members you may recommend, and the credits you receive—of \$1.00 and/or \$2.00—are applied against your own renewal subscription to SHUTTLE CRAFT.

When we were planning the June-July issue of SHUTTLE CRAFT we were faced with a problem when it came to deciding what would be the best thing to use for samples for portfolio subscribers. Samples of the Swedish Knot technique were unfortunately out of the question as it would be much too time-consuming to weave enough samples for all portfolio subscribers. The only alternative was to weave overshot samples to go with the "Old Drafts" article. We could have done this, but it seemed to us that so many weavers already knew about the actual theory of overshots and how to weave it—especially the old colonial interpretations—that swatches of overshot weaving would, for most weavers, be rather superfluous.

It was then that we decided to make up a chart showing reproductions of these old drafts—drafts which we thought were interesting, but were too large to be reproduced in the June-July article. This chart then was included with all portfolio copies of the June-July issue.

We had extra copies printed of the "Old Draft" charts with the idea in mind that weavers would find them decorative for their studio walls—as well as informative. So if you're interested, here are the pertinent details: the charts are 38" wide by 25" high; they include reproductions of 12 old drafts not shown in the June-July SHUTTLE CRAFT; and, they are available at \$1.50 from the Shuttle Craft Guild.

By the way, portfolio subscribers—do any of you know, or have you figured out how to interpret the draft at right center of the top two drafts, with the 13's and 26's marked on it? It is the only draft we found with this type of notation on it—and the only one which we could not interpret.

It has been the subject of a considerable amount of conjecture here, but we are still not certain that we know exactly how to read it. Have you ever seen any other drafts written in just that way? If you have, please do let us know.

We have in our own library—and I suspect we share this problem with all other weavers—small leaflets, pamphlets, booklets and such which somehow or other get wedged in between larger books and are seemingly lost just when we need them most. We also have a file drawer half full of file folders marked “Tapestry notes and ideas” or “Upholstery and Drapery” or “Christmas ideas” and so on.

Then we have had several Shuttle Craft Guild members write us asking if we could supply them with binders for their back copies of SHUTTLE CRAFT.

So to fit both these needs, we have had file boxes made up in two different sizes. The larger size measures 11½” high x 9” wide by 1¾” thick and will hold very comfortably, the usual 8½” x 11” size sheet of paper (such as the old SHUTTLE CRAFT bulletins), or magazines or sample cards. The smaller size box measures 10” high by 7½” wide x 1¾” thick and will hold a year of portfolio or regular edition SHUTTLE CRAFTS plus the portfolio annual.

The boxes are made up in light weight cardboard with a plain paper cover so that the owner can easily label each box any way she likes, according to her needs. The prices are \$1.25 for the large size and \$1.00 for the smaller size.

And to change the subject once more, here is a quick preview of some of our plans for SHUTTLE CRAFT for the next few months. This issue, as you will see, is devoted to linens and linen weaves. The October issue will bring several short articles with ideas and suggestions for Christmas weaving. November is to be what we are now tentatively calling a “members’ issue”, that is the articles are either prompted by suggestions or requests from members or will be written by the members themselves. For the December issue we will discuss some of the types of looms and weaving equipment on the market, and what to buy and what not to buy, according to your weaving needs.

There will not be enough space in this or the October issue for a continuation of the tapestry articles, but there should be enough space to start the French Gobelin series in the November issue. Mrs. Tidball’s series of articles on Summer and Winter will probably be completed in November or December, and then she will start her new series for advanced weavers, on the many possibilities and variations of the Double Weave.

So . . . we have a full schedule of weaving planned for ourselves and for you for the next few months. We hope you will receive as much knowledge and enjoyment from forthcoming issues of SHUTTLE CRAFT as we receive from planning and assembling the material for publication.

Sincerely yours



The Modern Renaissance In Textile Design As Applied To Linens

by Harriet Tidball

Forerunners of the Modern Renaissance in textile design which has slowly gained force in the past half-dozen years are now emerging in the field of linen weaving. Linens, generally the most conservative section of the textile field, continue to be interpreted in the spirit of the two style periods just past: that of the Classical or Colonial Revival period which extended into the 1930's, and that of the depression-born so-called Texture or Contemporary period, both of which were strongly overlaid by Swedish influences. The new spirit, showing itself in complex interlacement textures, smooth, elegant surfaces, and emphasis on sophisticated pattern, has been evident for some time in decorating textiles and has made progress in clothing textiles. Emergence of the new design approach has been less striking in the field of linens, as would be expected from the functional, conservative nature of household linens. But as any new spirit grips the major textile field, its influence spreads, despite lag, to areas of the minor textiles, and so a forward look at linens is now due.

The most significant presentation of this Modern Renaissance in textile design is a recent paper-cover Finnish book on linen weaving for the professional entitled PELLAVASTA KUDOTTUA, by Kaarina Gustafsson and Martta Saarto. PELLAVASTA shows the new interest in pattern and the new type of pattern. It shows a reawakened emphasis on beautiful interlacement textures and beautiful fibers enhancing smooth surfaces.

As mentioned in the introduction of PELLAVASTA, the color plates are given as an illustration of the way to use color appropriately and effectively in linens: a single color, depending on interlacement contrast to form the pattern interest, a light colored warp with a dark colored weft to emphasize the texture-patterns, or stripes—mainly weft stripes—employing two or three colors. The combination of very closely associated colors is used if the warp and weft threads are coarse, and strong contrasts in value or brilliance if the warp and weft are fine, continue as the rule. These are simply the much abused classical conventions for linen weaving.

PELLAVASTA KUDOTTUA has a Finnish introduction, the balance of the text being simply notes on each of the 141 beautifully presented designs. This introduction is general rather than technical, taking up the history of linen weaving in Finland, the use of handspun flax, and the finishing of linens. It emphasizes that only the highest quality linen thread will give satisfactory results. It also says that the book is intended for the professional weaver rather than for the home weaver or the amateur. This distinction may be understood by the nature of the designs which are definitely sophisticated and professional rather than of peasant or traditional type, and the majority of the patterns require more than four harnesses.

About 30 4-harness designs are given, and these are worth studying for their treatment of stripes, proportion and pattern. Perhaps most interesting of these are the unusual honeycomb patterns, and one particularly interesting stripe pattern in a hybrid crackle-overshot technique (#4) which has unusual character and should have good applications. There are about thirty patterns for pick-up, dukagang, inlay or lace techniques to be woven on two or four harnesses, the diagrammed patterns for which should interest many weavers. These patterns are modern developments from traditional Scandinavian designs. Three drafts and patterns for drawloom work will interest those who have this highly specialized equipment.

The patterns for from 5 to 12 harnesses are the truly significant ones in the book—those which most effectively express the spirit of the Modern Renaissance in textile design. Technically these are in the various Twill systems such as Straight, Point, Broken and Extended Point Twills, in Summer and Winter, and in 2 and 3 block Double-Broken-Twill, with a few other miscellaneous techniques. The Double-Broken-Twill designs, eighteen in all, are the most interesting of the patterns given.

This discussion of the patterns in PELLAVASTA KUDOTTUA has three aims: to draw attention to the new use of pattern in table linens and towels; to explain the drafts, tie-ups and treadling directions for the weaver who wishes to purchase and use this book; and to present some of the 12-harness designs in a manner which will make them useful to the weaver who has fewer harnesses available and who may wish to weave some of these patterns without purchasing the book.

A word about the directions given for each design in the Finnish text: the American and Canadian weaver will find it far more satisfactory to completely overlook these, not worrying about translation. The directions outline such points as exact dimensions for the photographed article, threading schedule, thread size, number of warp ends and colors. There are several reasons for disregarding such directions, even if a translation is available. First and most important, the creative weaver wishes to make his own thread and color selection, determine his own dimensions, and figure his own pattern arrangement and treadling schedule. This is part of the fundamental designing process and keeps the weaver from being a pure copier. Second, the sizes and proportions of European linen articles are different from the conventions and styles followed in America. (It is worth noticing that these conventions differ even between U. S. and Canadian usage.) Third, every significant fact the weaver need know is written in the great international language of photographs and drafts. Close study of the photographs tells more than words could, indicating for instance that the fabrics are of fine thread closely set, that they are beaten to square, and the single-shuttle weaves are perfectly balanced (same number of warp ends and weft shots per inch), that white or light warps with dark wefts are the most common order. They show where heavier thread is used for pattern weft than for warp and tabby, as with the honeycomb outlines or in the Summer and Winter designs which are woven with two pattern shots squaring each threading unit instead of the

four pattern shots of the Colonial convention. They show whether or not colored threads occur in the warp as stripes.

A draft tells a more detailed story than a photograph, and when the draft and photograph are compared, the interpreter should have all the information needed. As it happens, the drafts are given in this book (and those in many other sources) are inadequate in the published form for study and comparison because abbreviations are used. Also the draft conventions and symbols in most publications need interpreting and converting into the particular draft form used by the weaver. Analysis of the drafts show that:

(1) The drafts assume harnesses numbered from back to front of the loom, top to bottom on the paper, in the Scandinavian manner, instead of in the American direction of bottom to top. So in many cases a transposition will clarify technical points.

(2) Draft, tie-up and treadling symbols are somewhat different from those of the American convention and therefore in some cases need interpreting. The "x" symbol is used in the threading draft and the filled square in the tie-up—the reverse of our own convention. In some of the drafts one finds part of the threads indicated by "x", part by filled squares, and in some cases there are also dots. By our conventions these different draft symbols would mean different thread colors or types, but not so here. PELLAVASTA uses these as structural symbols. In drafts with two or three symbols, the "x" represents foundation threads such as those threaded to harnesses 1 and 2 in the Summer and Winter weave; the filled squares represent threads placed on pattern harnesses; the dots indicate tie-down threads which hold pattern weft but do not form the basic interlacement nor control the placement of pattern blocks. Therefore the different draft symbols are simply signals intended to help one understand the technical structure of the weave. (There are a few exceptions, mainly in 4-harness twill drafts, in which these same symbols actually are color signals, but examination of the photographs clearly indicates the patterns with warp color stripes.)

(3) Short forms are used in many drafts for abbreviation, though no Profiles are used. Repeat units are shown clearly by brackets under the draft, with figures showing the number of times a group of threads should be repeated. Sometimes a small repeat within a large repeat is shown, complicating the interpretation a bit. There is not complete consistency in the use of this short-cut, since some drafts give the full repeats, and some give both full repeats and repeat brackets.

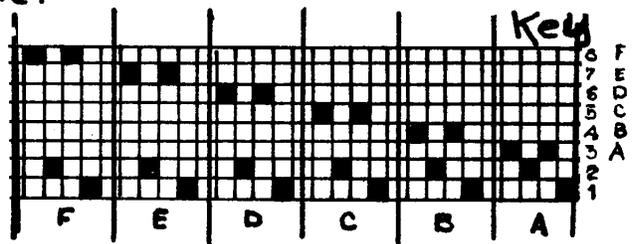
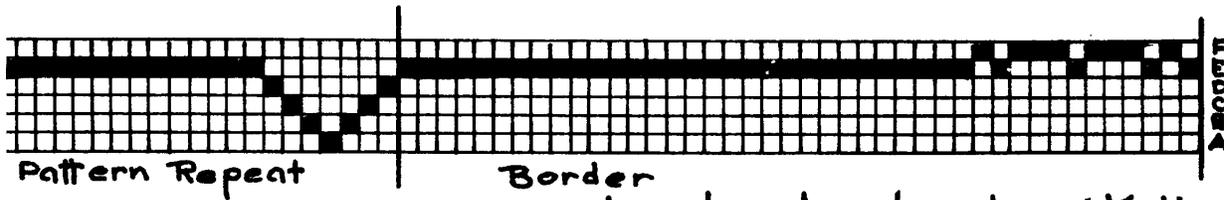
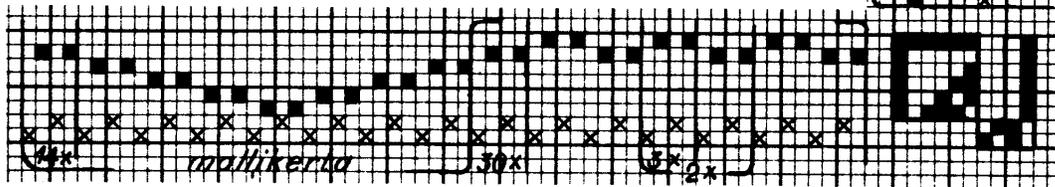
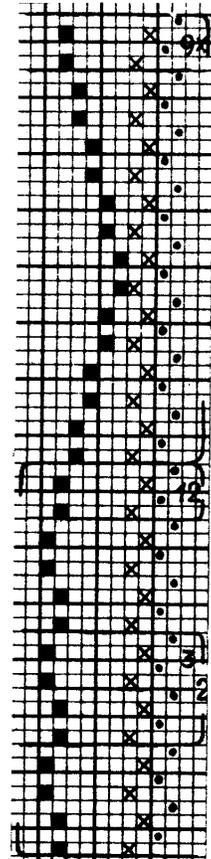
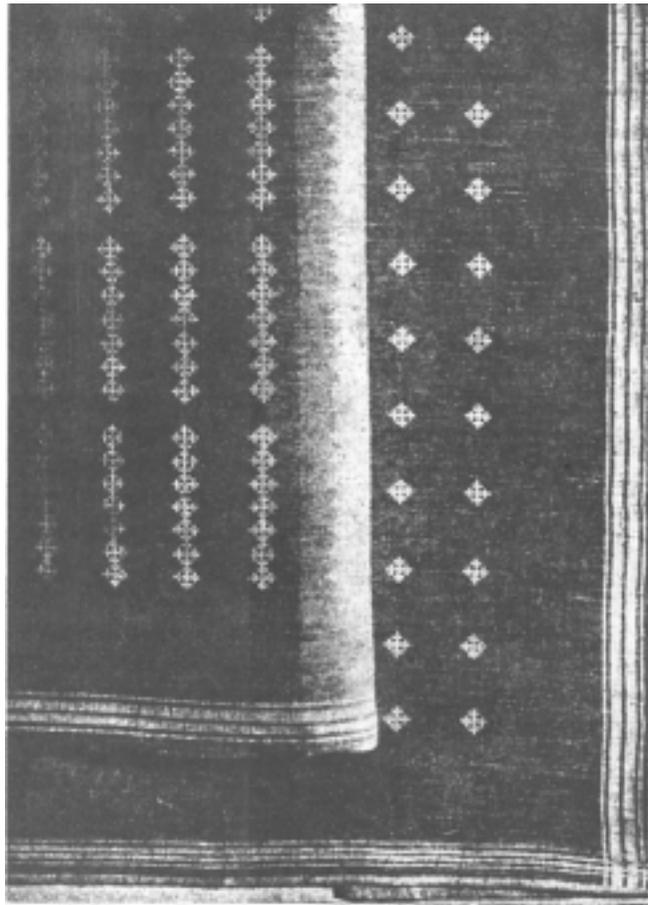
(4) For some patterns a single draft repeat is shown, to be balanced and repeated according to the requirements of the weaver's design. Other drafts show full threading schedules including selvage and border threadings, an exact number of draft repeats, and the balance unit, for exact reproduction of the textile shown in the photograph. The

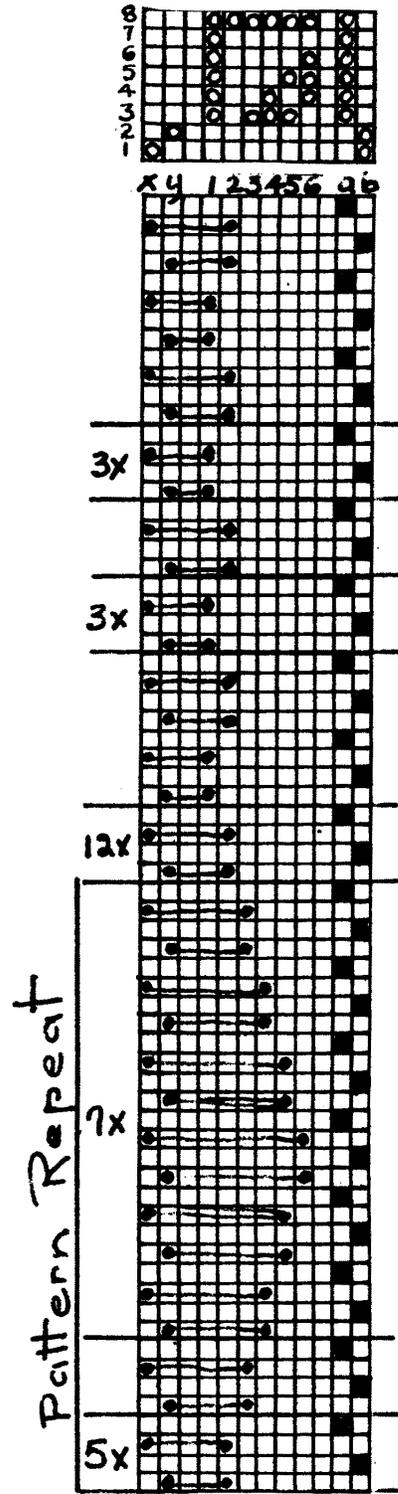
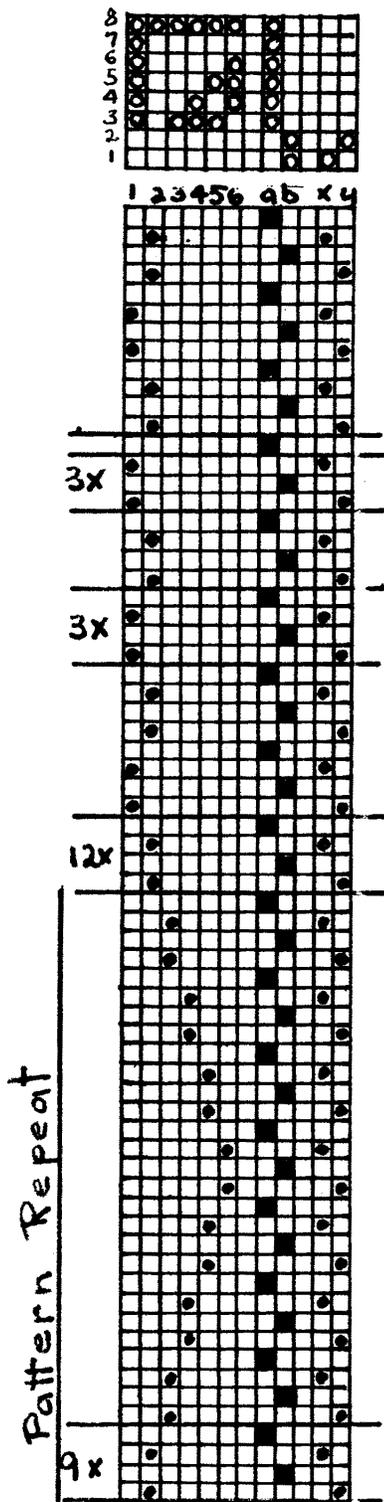
weaver who will adapt a given pattern to his own warp and design must therefore separate out these elements and refigure the proportions and number of draft repeats to fit his own project.

The tie-up needs little explanation. Except for the filled-square symbol it closely follows our own system. It is shown at the right of the draft, to be read from left to right. The treadles at the left control pattern blocks and the two at the far right are the tabbys, where such occur; if there are tie-down treadles they separate patterns and tabbys. We more commonly place tie-down treadles at the extreme left, or occasionally at the extreme right, but the placement is a matter determined by weaving convenience only.

Treadling directions, especially for the two-weft systems, may seem difficult to interpret, but with a few variations the system is the same as that used in THE HANDLOOM WEAVES. The treadling orders are read in the weaving direction, bottom to top. One symbol indicates tabby weft (either the dot or the "x") and pattern weft is indicated by filled squares. By our convention, when warp and tabby are identical, the identical symbol is used for both, and in treadling orders too the symbols indicate types of weft rather than pure structural differences. Treadling orders are read in the weaving direction, bottom to top. The Summer and Winter drafts given show pattern and tie-down treadles operated simultaneously by the means (used also in THE HANDLOOM WEAVES) of two symbols on the same horizontal line. The two symbols are different, however, since the "x" is used for the tie-down treadle and the filled square for the pattern treadle—a technical differentiation again rather than a color signal. Unit repeats are indicated by brackets and figures, exactly as in the draft. It must be remembered that if the weaver makes any draft conversions for his own draft study or treadling, identical conversions must be made in the tie-up, but the treadling directions remain identical unless the treadle order is changed.

Patterns 74 and 75 on a single Summer and Winter draft are selected here to illustrate the differences between the Finnish draft system and the American. The photograph, draft, tie-up and treadling orders are reproduced in facsimile from PELLAVASTA KUDOTTUA. This is a Summer and Winter pattern of great charm from which many fine, modern spirit patterns could be designed though only two are shown. The draft is actually a threading schedule with the first half as the border, then a plain band shown by 30 repeats of a single unit, and then the pattern itself, bracketed off and indicated by the word "mallikerta" to be repeated as desired, after which it is necessary to repeat the plain band and the border in reverse. The tie-up shows six pattern treadles, then the x and y tie-downs which are operated simultaneously with pattern treadles though in alternation, and the two tabbys at the far right. The treadling order shows the border at the bottom and the pattern repeat at top. This treadling is for pattern 75, shown at the right, which has isolated motifs. To weave pattern 74, shown at left on the photograph, the final 9-repeat unit on the second pattern



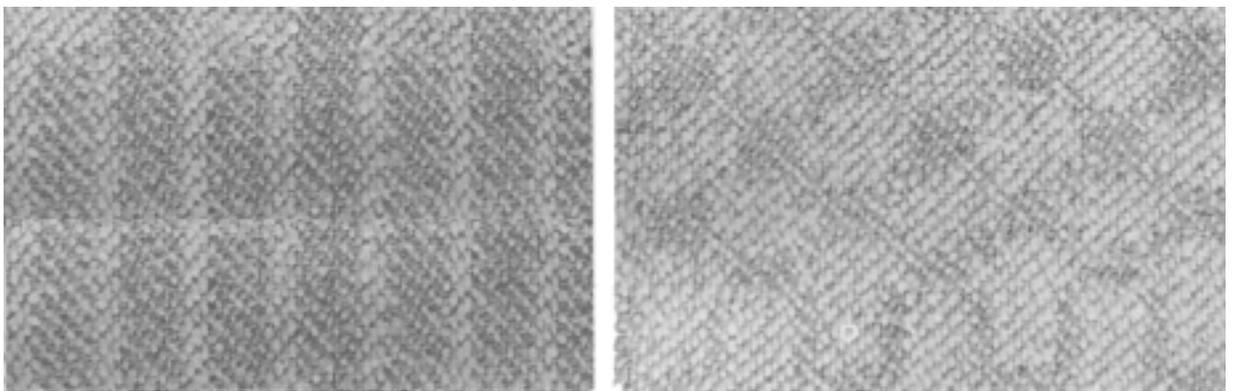


treadle is omitted while the motif is repeated seven times, followed by seven repeats on the second pattern treadle, and the whole thing repeated. The Finnish draft becomes completely understandable to the American weaver when it is converted to the conventional American draft system.

Supplemental to 74 and 75 from PELLAVASTA is the conversion of draft, tie-up and treadling to the American system in Profile draft with Key. The use of the Profile instead of a thread-by-thread short-form draft has several advantages. The Profile gives in diagram an accurate picture of the pattern, the exact proportions and the number of units in the full repeat. It also allows more freedom in the selection of weaving technique or system, since with the use of Profile, any one of the 14 weave systems of the UNIT CLASS of weaves may be selected, according to its appropriateness to the project, the materials and the equipment at hand. These 14 weave systems are all given in THE HANDLOOM WEAVES (Tidball, 1957) with threading key, tie-up and treadling system. Thus, the draft becomes a foundation for designing rather than for copying.

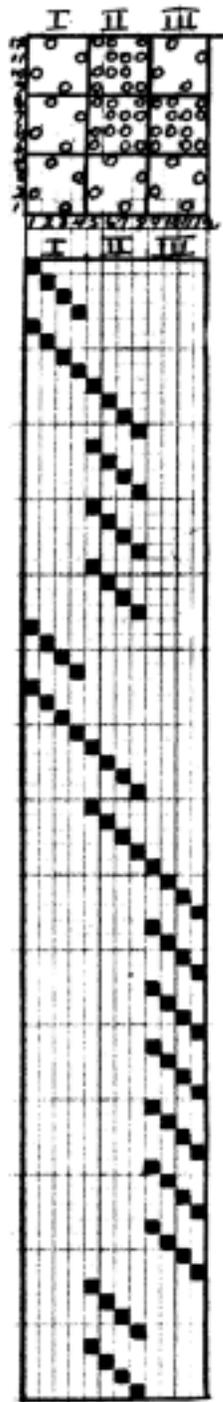
This point is particularly significant for the 18 Double-Broken-Twill system drafts in PELLAVASTA KUDOTTUA, the finest designs in the book, as most of these require twelve harnesses. However, if they are interpreted in Summer and Winter, these patterns require only 5 harnesses and 5 if in Atwater-Bronson Lace. They require 6 harnesses in the Half-Satin system, the Bergman System and the Bateman Blend. For the Twill-Block System they require 7 harnesses, for Double Summer and Winter 8, and for the Double-Jeans-Twill 9. So it is plain that the Profile draft is suggestive when one has the problem of reducing a design to the limitations of one's own equipment, while retaining the exact pattern.

Another designing problem always enters the program when a given pattern is shifted in technique or adapted to a different over-all design. This is the matter of appropriate thread size and warp set. Thread sizes used for the models photographed in the Finnish book are comparable to our 40/2 linen and to finer linens. In adapting the designs, coarser linens are quite appropriate for the single-shuttle weaves, but nothing finer than 40/2 is advised as warp and tabby for the two-weft weaves. The photograph shows Double Jeans-Twill woven of 14/2 linen set at 24 ends per inch. For the use of 40/2 linen, the warp set must be determined by the closeness of the interlacement system, so it will vary with the weave used.

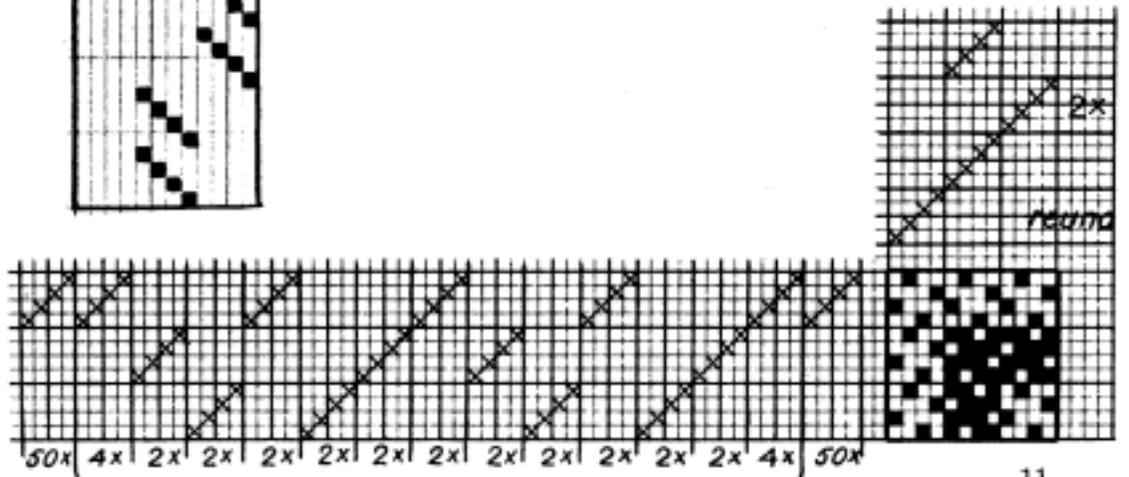
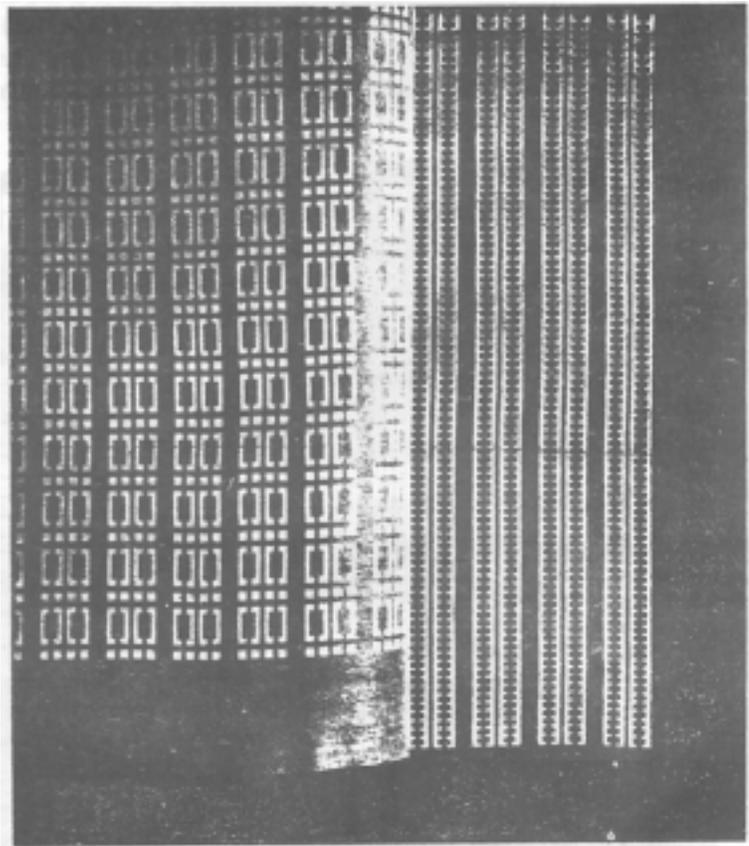
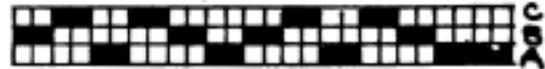


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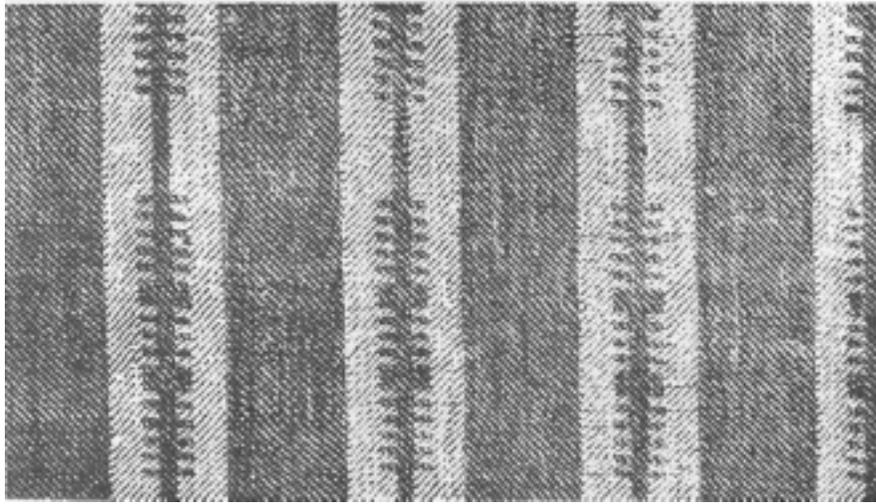
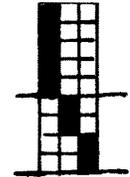
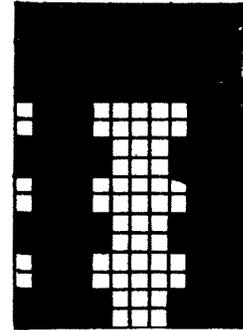
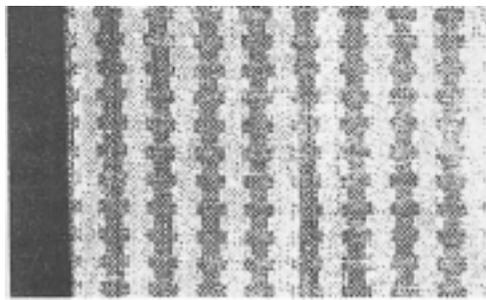


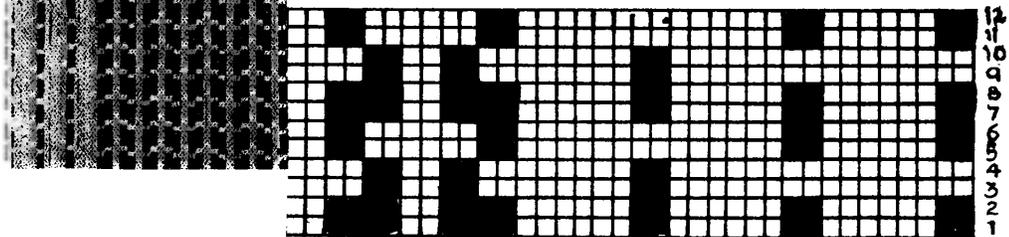
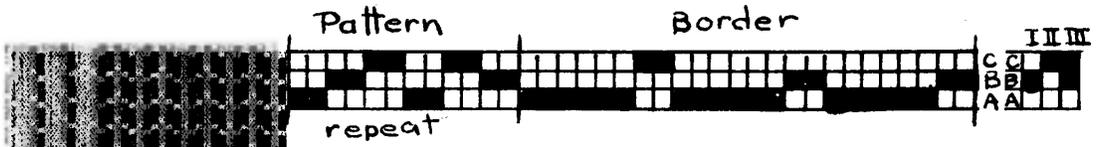
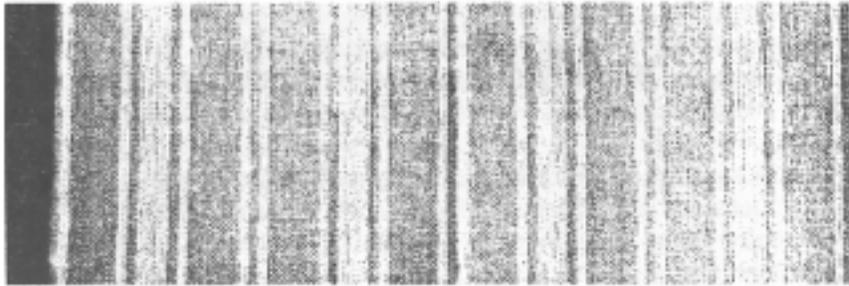
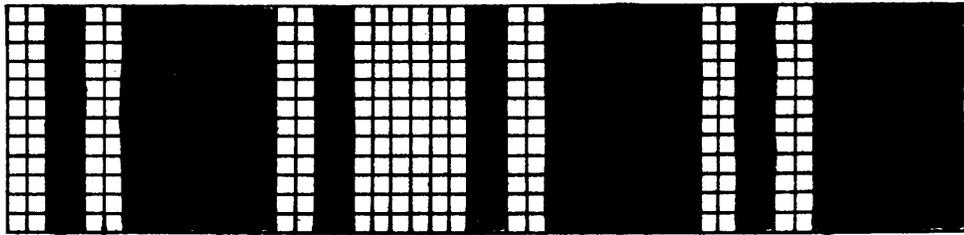
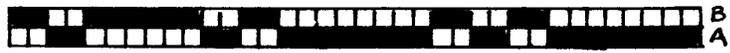
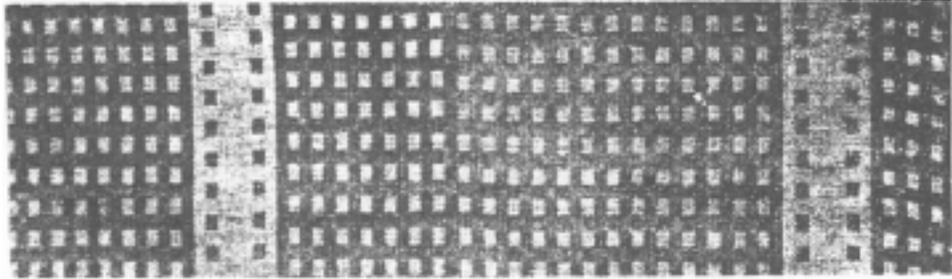
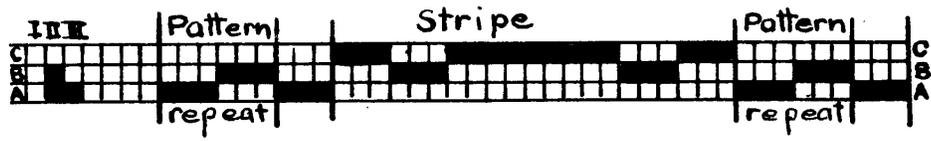
Further patterns are given from the Finnish book. Number 82 of the Finnish book in the 12-harness Double-Broken Twill is given in facsimile and also in interpretation to profile as a full illustration of the more accurate and adaptable draft system.



The following Profiles have a small illustration from the Finnish book, the Profile draft and tie-up, and the diagram of the pattern. Any of these may be interpreted in any of the systems mentioned above and some have adaptations for further systems such as Warp Pattern, Mattor, Spot Bronson, Multiple-Harness Huck or M's and O's, and so on.

Full information for all of these systems with the draft key, basic tie-up and classic treading orders are found in THE HANDLOOM WEAVES, by Harriet Tidball, November 1957 \$3,00, available from Mr. Veren of Craft and Hobby Book Service. Mr. Veren is also the exclusive importer of PELLAVASTA KUDOTTUA by Gustafsson and Saarto, and can supply this beautiful book at \$3.75. All illustrations from PELLAVASTA included here are through the courtesy and permission of the publisher.





WEAVING WITH LINEN

by
Mary E. Black

The story of linen has been told so often, and so well, that it will not be repeated here.

To the weaver seriously interested in the history and processing of linen we heartily recommend Edward F. Worst's WEAVING WITH LINEN. Aside from giving the factual story of linen this book is illustrated with charming pictures of a group of women, though perhaps "gentlewomen" is a better word to describe them, shown processing the flax through the various stages of pulling, tying, rippling, shocking, retting, breaking and/or scutching, heckling, winding the fibres onto the distaff, spinning and skeining. Then finally how to wind the warp and thread the loom. A long process perhaps, but one which has shown little variation over the ages, in the production of one of the strongest, longest-wearing and most beautiful of threads.

Two types of linen thread emerge during the processing of the flax: (1) the tow linen and (2) the soft line linen. The tow linen is coarse and rough and contains bits of the outer covering of the stock. It is loosely spun, and suitable only for weft. It lacks strength but is very absorbent and therefore quite suitable for towels as well as for other purposes. It was from this linen tow that ticking and sheets for the hired help and itinerant travellers were made during the pioneer era. These in combination with blankets woven of the rough tag ends of wool did not encourage lying abed!

The term *line linen* applies to the soft single linen thread spun from the long flax fibres. The more care used in handling and spinning these fibres the better the thread. When we read of using linen singles it is this thread which is meant. There are two processes used in spinning linen, one is the dry, the other the wet process. It is the latter method which produces the more beautiful and more expensive thread.

The third type of linen is plyed linen. This linen is simply stranded linen, that is two, three or four or more strands of line linen are spun tightly together to form a single, strong thread. Plyed linen is also known as round thread linen.

Each kind of thread, wool, cotton, rayon, nylon, silk, has its own count or measurement system. The count system for linen is called a lea. There are 300 yards in 1 lb. of #1 lea linen. Plyed linens, like cottons, are numbered with the size of the thread first, number of plys second; thus a #10/2 linen would be made up of 2 single linen threads of #10 linen spun tightly together. This size has 1500 yards per pound. Linen may be purchased in a great variety of sizes and as it is necessary to know how much to purchase for a specific project the following table is given to

help the weaver ascertain at a glance how many pounds or units of a pound, of a given size will be required:

<i>Size</i>	<i>Yards per lb.</i>	<i>Size</i>	<i>Yards per lb.</i>	<i>Size</i>	<i>Yards per lb.</i>
1	300	15/2	2250	20/2	3000
10	3000	16	4800	30/2	4500
10/2	1500	18	5400	40/2	6000
12	3600	18/2	2700	40/3	4000
14	4200	20	6000	60/3	6000

The formula for figuring linen counts is:

$$\frac{\text{size of linen} \times 300}{\text{number of plies}} = \text{yards per lb.}$$

that is, a 40/2 linen would be: $\frac{40 \times 300}{2} = 6000$ yards per lb.

Linen is difficult to dye, therefore it is advisable to purchase only the best of colored linens and it is suggested that they be tested for color fastness if 2 or more colors are to be used together. Other poorly dyed linens will smut when run through the fingers. These are both undesirable linens and should be avoided. A third type will show white along the inside of the strands when untwisted.

There are many shades among the natural linens depending largely on the country from which it is imported and the method of retting. Scandinavian weavers play up these nuances of color and some striking effects are obtained from the use of one natural shade for warp with a different shade for weft. Two or three delicately colored linen singles twisted together on the bobbin for weft will produce subtle colorings in the woven piece most difficult to describe.

Linen does not possess the elastic qualities of either cotton or wool so it is rather difficult for the inexperienced weaver to handle. However experience cannot be gained without making a start. There is no reason why with care taken in winding the warp to keep a good tension, and with careful handling that it cannot be successfully used. Avoid starting with a long, wide warp of fine linen, start rather with a coarse, plied linen, winding enough only for one or two guest towels or place mats. The careless, impatient weaver will do best to avoid linens altogether because they will fight back at the unsympathetic weaver.

Experienced weavers have little difficulty with singles linen, here though, a careful choice of linen must be made. The cheaper, tow type, soft, loosely spun linens are not suitable for warp, but on the sample cards will be found linen singles that are strong and evenly spun. These are quite suitable for warp. If they seem to fuzz up a bit or stick, a cold starch dressing can be sponged on as the warp is rolled forward. Some weavers weave with their warps wet, and even keep their filled bobbins in a pan of water; others scorn this procedure and weave with both a dry warp and

weft. Each weaver will have to learn through experience which method is best for himself.

Linen is such a beautiful fibre in itself that it seems unnecessary to combine it with other fibres particularly synthetic or man-made ones. In cases where finances will not permit the use of a linen warp for towels or place mats for everyday use, it is quite legitimate to use fine cotton with a singles linen weft. Again, linen provides a strong, long wearing, non-stretching warp for wool rugs and tapestries. The harmony between rough linen and single ply vegetable dyed homespun wool is a happy one as illustrated in our table runner described later on in this article.

There are readily available rough, dull linens; plyed linens with a beautiful natural sheen and mercerized linens which sparkle with life. Although some authorities frown on the use of a linen singles weft used with a round thread or plyed warp, others feel that its use enhances the beauty of the finished piece. Pieces woven entirely with plyed linen are smooth but inclined at first, to be stiff while those woven with linen singles are soft and silky even after the first washing, and the surface has more character. Singles are a must for damask weaving.

As with many other threads the sleying depends entirely on the article to be woven so the sleying in the accompanying table are merely suggested. It is not intended that the sleying given with the experimental articles woven to illustrate this article should necessarily be followed. Types of looms and even slight differences and variations in the threads will change the sley accordingly. A sample should be woven, washed and ironed before a large piece is undertaken. Remember the variables we pointed out in the February issue of SHUTTLE CRAFT? The following is a suggested table for sleying linen:

<i>Size</i>	<i>Plain Weave</i>		<i>Twill</i>
	<i>Loose</i>	<i>Firm</i>	
1½/1	6		
7/1	20	22½	25
10/1	24	27	30
12/1	25	28	32
12/2	20	22	24
14/2	20	22½	24-25
18/2	22½	24	27
20/2	24	25-27	30
30/2	28	30	32
40/2	32	36	40-45
50/3	35	37½	45

(See also Mrs. Tidball's suggested sleys for 40/2 linen, on page 29).

Linens can be woven successfully on practically any type of loom but for some techniques, where one harness operates against three as in the case of the lace weaves, difficulties arise on a counter-balanced loom. A rising shed loom assures the weaver of a clear shed at all times which is especially helpful for the inexperienced weaver.

All weaving techniques are not suited to linen weaving, but among those that are suitable are the balanced linen weaves—the M's and O's, the Atwater and Swedish laces and the spot weaves. Certain twill threadings are most effective and the plain 50/50 weave, especially when attractive color combinations are used, can be most pleasing. For multiple harness and draw looms there are the damask weaves. Then there are the finger-manipulated weaves: Spanish lace, Brooks bouquet, leno weaves etc., which are most attractive when woven in a single color. Except in the hands of an experienced weaver summer and winter does not lend itself to linen weaving. However some unusual and outstanding effects can be obtained when the designer-weaver takes over. It is perhaps the 2-harness and the multiple harness weavers who are the ones to explore and develop linen weaving to its fullest.

Overshot is not recommended for linen weaving, that is overshot in the sense in which we think of it with its long skips in a contrasting color. These would not only be unattractive in linen but would also lack durability. Oddly enough practically the only use of overshot we find in Scandinavian weaving, with a few exceptions, is in their linens. Perhaps their success is due to the use of fine threads and close sleying. Their beautiful drall table linens are a joy to behold and stand up for years under vigorous laundering.

When first removed from the loom, linen pieces are apt to be disappointing, however washing and ironing will soon remedy this and reassure the weaver that the result has been well worth the effort.

Drastic washing methods are suggested. Begin by soaking the web over night, well immersed in soapy water. In the morning give it a vigorous washing in hot water with a good soap or detergent. Roll in a towel to remove excess water, iron until dry with a hot iron but watch out for scorching. When dry and smooth and after it has been duly admired, give it another vigorous washing, roll in a towel and iron. It takes courage and fortitude to give it this second washing but you will note immediately the difference in softness and sheen. The more linen is laundered the more beautiful it becomes so do not be afraid to wash even your choice pieces frequently—they are sturdy and will wear for many years, probably for as many as you will need them.

In keeping with our policy of encouraging Shuttle Craft Guild members to learn through experimentation we are not giving detailed directions covering threads to use, sleying and treadling for a group of specific articles, but rather we are giving you the results of our own experimenting plus some suggestions.

From the references on page 29 to proportion, color and design; from the tables on sleying for linens; from the SHUTTLE CRAFT READY REFERENCE TABLES, and from your own knowledge and experience we feel quite confident that you can design, plan and weave original pieces of

which you will be justly proud. Should we however, have missed some essential point please do not hesitate to write us.

It is difficult to conjure up new ideas, but it was our desire, when planning this article to give you suggestions for the new use of old ideas. We wanted to give you suggestions for household linens as far removed as possible from the trite overshot border designs with which we have been surfeited for years. With two exceptions we have succeeded in avoiding horizontal borders and have used an overshot threading only once, but with a different approach which we hope you will like.

Experiment #1—*Honeycomb border.*

In choosing an overshot draft to be woven honeycomb-fashion be sure that the skips are short. Also, choose a draft with a design unit which will show to advantage when the towel is folded and hung on the rod. Have it well-balanced and pleasing and plan it so that the fold does not come in the middle of the more important design area.

One threading for this experiment was on Mrs. Smith's Spider Web draft which we explored and discussed in the June-July issue of SHUTTLE CRAFT. This threading, with its many potentialities for experimenting, remained fresh in our minds and we are loathe to discard it.

We found in our box of odds and ends a yellow, 10/2 length of linen warp (discard from a 45" loom) with which we decided to experiment.

There still remained on our small experimental loom the end of the cotton warp from our last sample woven on the Spider Web threading. The linen ends were tied directly onto the cotton ones. This gave us a new linen warp sufficiently wide and long enough for a guest towel, aside from loom waste and an allowance for 2 sample treadlings for our own records. Do you save loom waste from your 45" loom for your experiments on a small table loom?

A single strand of the yellow 10/2 linen was used for the plain weave body of the towel; two strands together were used for the outline thread around the "eyes" and a 40's single linen in bottle green for the "eyes". But do use your own color combinations.

The 10/2 was sleyed 3 per dent in a 9 dent reed. The same sleying can be obtained in an 18 dent reed by sleying one thread per dent in the first dent, 2 per dent in the second dent and so on across the reed. Although the towel is coarse it is soft and pliable.

The honeycomb method of treadling, used extensively in the Scandinavian countries is suitable for towels and bedroom linens such as runners, pillows, etc. It lends itself well to two color combinations but the best effect is obtained if the heavy thread which outlines the "eyes" is of the same color as the warp. The "eyes", or "dimples" as Mrs. Atwater called them, should be of a fine thread of either the same or a contrasting color. Personally we prefer the latter. The use of a dark thread creates the illusion of lace when the towel, hanging on the towel rod is viewed from a distance.

Though we usually associate honeycomb with two block drafts, ex-

pressly designed for the weave, it is much more effective and interesting to weave when threaded on four blocks.

To refresh your mind and for the benefit of those who have not woven honeycomb on 4 blocks, these directions should be helpful. Use a direct tie-up as the harnesses are treadled separately.

Block A (harnesses 1 and 2)—fine thread, treadle 1, treadle 2, for 6, 8 or 10 shots as desired.

Outline thread—heavy linen, treadles 1 and 3; 2 and 4.

Block B (harnesses 2 and 3)—fine thread, treadle 2, treadle 3, for desired number of shots.

Outline thread—heavy linen, treadles 1 and 3; 2 and 4.

Block C (harnesses 3 and 4)—fine thread, treadle 3, treadle 4, for desired number of shots.

Outline thread—heavy linen, treadles 1 and 3; 2 and 4.

Block D (harnesses 1 and 4)—fine thread, treadle 4; treadle 1, for desired number of shots.

Outline thread—heavy linen, treadles 1 and 3; 2 and 4.

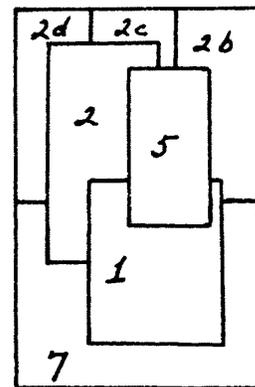
Continue with linen thread same as warp and weave body of towel in plain weave.

The blocks can be woven in the order given on the threading draft, or in any original design arrangement.

Special care must be taken with the selvedge or the heavy outlining thread will stick out beyond the finer threads resulting in an unsightly edge. Carry the heavy thread carefully along the selvedge catching it in close to it with the fine thread used for the “eyes”. This will require care but can be done. Another factor to remember is that the skips on the back of honeycomb treadling are long. Therefore plan the border to come at the very bottom of the towel, and weave enough plain weave at the beginning of the towel to completely cover this area when hemmed back.

The heavy thread is left loose in the shed so that it will beat closely down around the “eyes” in curved lines. If any confusion exists about which treadles to depress when changing from the fine “eye” threads to the coarse outline threads, depress those which will bring up the threads opposite those in the last fine row of weaving. This will assure the correct continuity. There are two methods of weaving honeycomb. Directions for these can be found on page 199 in the Atwater book and on page 344 in the new KEY TO WEAVING.

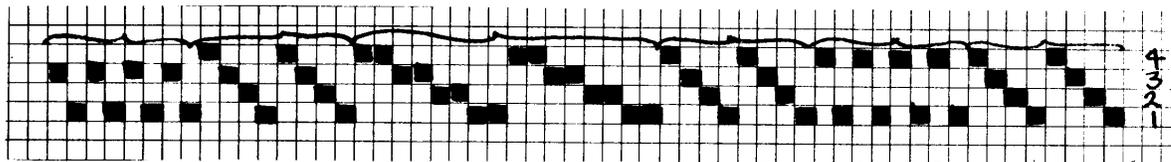
The numbers in the sketch refer to the experiments in this article as shown in the photograph on the cover.



Experiment #2—*Undulating twill*

As a change from the 45° angle, 2/2 twill, herringbone and dornik, try an undulating twill threading.

Here is our variation of an undulating twill threading suggested by the slightly ruffled early morning water of Bedford Basin:



Repeat as many times as required to obtain the desired width. Balance the threading when ending with 1, 2, 3, 4, twice.

Use a standard tie-up and treadle standard 2/2 twill, that is 12, 23, 34, 41, repeated and repeated.

The warp used for our experimenting was a bright green 10/2 linen, sleyed 2 per dent in a 10 dent reed. Coarse bleached linen tow, very rough and with bits of the flax stem adding a spot of gold here and there throughout the sample was used for weft. To really test the “hand” of any material a sample at least 8” x 10” should be woven. When completed, our sample, about this size, was washed and ironed. When handled it suggested itself as being suitable for place mats, or, to fill a personal need of our own, to upholster a blond wood, informal lounge chair. The material was firm and did not “yawn” when pulled. It would also be suitable for place mats with pottery or plain china and has the virtue of weaving up quickly and of being inexpensive.

Experiment #2b

The same threading and 10/2 green linen was used for this experiment as for the previous one with a change of sleying to 3 per dent in a 9 dent reed. A 10/2 self color linen weft was used. Two treadlings were tried, one the straight 2/2 twill sequence, the second treadled 12, 23, 34, 41, 34, 32, repeated and repeated. Set at 27 threads per inch the material is quite suitable for towels or place mats. It could also be used for upholstery where a completely self color material is desired.

Experiment #2c

The same threading was used with a 14 lea, natural color linen, double sleyed in a 16 dent reed.

A self color, #10 singles soft tow linen was used for weft. The result was uninteresting in color, and too firm. A looser sleying, even at 30 to the inch would have greatly improved its pliability. Where heavy, long wearing towels are required, however, such as for a family of growing boys, these materials and threading are recommended. Frequent washings will bleach the towels to a pure white. Woven of the same threads in bleached linen and natural tow the material would be quite satisfactory for place mats.

Experiment #2d

For the last experiment in this group a 40/2 linen was used for both warp and weft. This was sleyed at 48 per inch, three per dent in a 16 dent reed. A sleying of 45 per inch, three per dent in a 15 dent reed, would have produced a softer material, suitable for guest or regular size towels. As a further experiment a light colored stripe was introduced. This was a mistake—the resulting material resembled cheap ticking. If it is desirable to introduce a second color in a stripe, it is best to use a lighter or darker shade of the background color. Linen should never be cheapened through the use of poor color combinations.

Experiment #3

This experiment shows a happy combination of two natural threads: natural linen, rough spun 12 lea, with horizontal borders of vegetable-dyed singles and 2-ply homespun yarn. The effect is quite charming and the runner suitable for a pine-paneled or sun room, where it will pick up the color tones of the surrounding wood.

The 12 lea linen was set at 15 dents per inch and threaded on a rosepath threading. The plain weave linen areas are made more interesting because of the uneven spinning of the linen and the pattern borders, woven without a tabby on conventional rosepath treadling, are attractive because of the soft colors of vegetable-dyed yarns—these yarns the colors of beech leaves in winter, the pale fresh greens of new spring leaves and the soft yellow of cowslips.



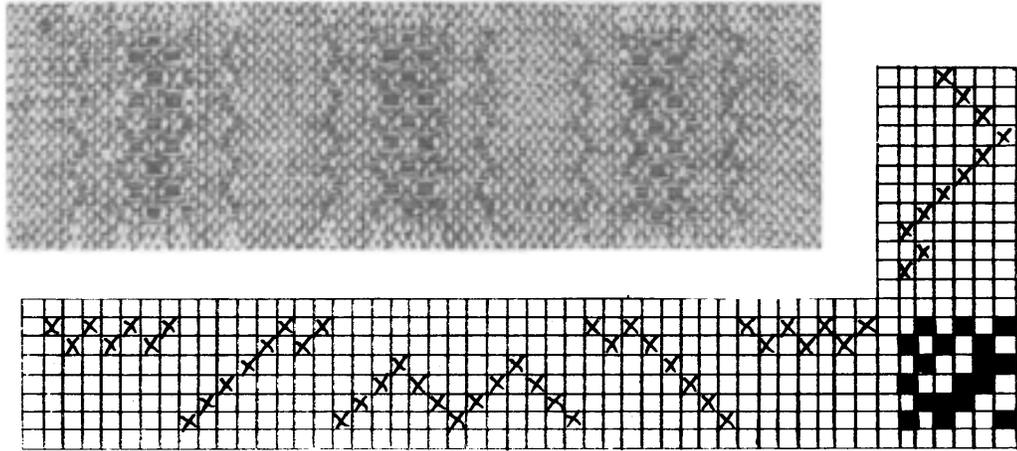
Sample on next page.



For other variations on the log-cabin theme, see “A Two-Color Plain Weave Gamp”, in SHUTTLE CRAFT, November 1957.

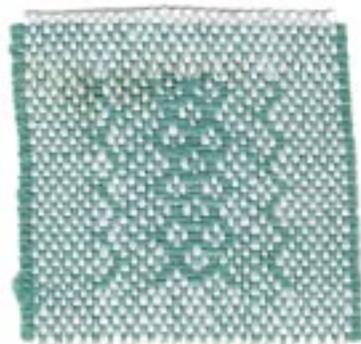
Experiment #6

The Finnish book PELLAVASTA KUDOTTUA gave us our inspiration for this experiment. With vertical stripes, rather than horizontal stripes, in mind, we decided to experiment with #30 in the book. Following is a facsimile of the fabric, the threading, tie-up and treading as shown in PELLAVASTA.

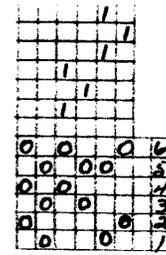


However, if the tie-up and treading directions are followed exactly as above, you do not get the same result as shown in the photograph; the result is pleasing, though the pattern is not quite as well defined. We tried several variations using this tie-up—see photograph at right—but decided we preferred the original, more strongly defined pattern for our purposes.





If you are interested in trying this, here are the corrected tie-up and treadling directions.



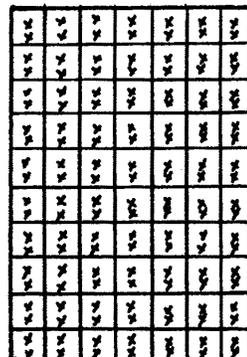
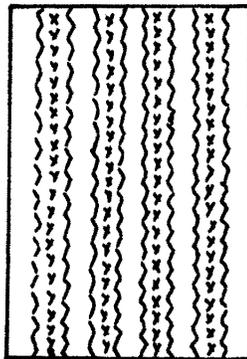
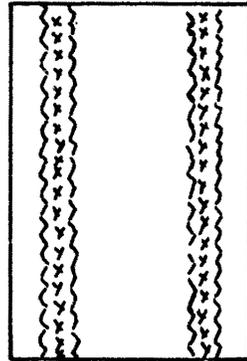
We wove our final sample using Lily's 20/2 white linen (Art 107) for warp, sleyed 27 threads per inch, and 10/1 colored linen (Art 207) for weft. After weaving, the material was washed once and rinsed two or three times—till the water was clear—; hung up without wringing to let the excess water drip out of it; and then ironed with a hot iron until dry. The resulting material could be used for a firm linen hand towel—we like this weight for this purpose—or for place mats, runners or tablecloths.

This little pattern lends itself beautifully to several color and design possibilities. For example, for place mats, the simplest and perhaps most obvious design would be to thread and weave the material with a pattern stripe running along both sides of the place-mat, with plain weave in the centre.

As an extension of this idea, the plain weave area in the centre might be re-threaded so that there are pattern and plain weave stripes running all across the warp.

This second idea, in turn, suggests that instead of weaving the stripes for the complete length of the mat, weave plain weave at intervals to break up the pattern into squares.

Again the threading could be re-arranged with slightly wider plain weave areas and two heavier weight linen threads threaded through the centre of each of these areas. These heavy threads could be the same color as the warp, the same color as the weft or a completely different color, as long as it blended with the warp and weft. The weft could then be woven in to make little blocks—as suggested above—with each block separated by two heavy threads as in the warp.



And as another experiment on this last idea, try weaving a different color of linen in each row of blocks. For example, using Lily's linen colors weave the first row of blocks in light yellow, the second in crabapple, the third in beaver brown, the next in yellow, the next in orange and the next in dark brown.

We have tried all the above colors on the white warp. All of them are pleasing, but the darker colors are easier to work with because you can see them better than the light colors—and of course the pattern shows up more definitely with the dark colors than the light colors.

Experiment #7

For this, our last experiment, we give you the directions for an eight harness extended point twill, which we in our family, for obvious reasons, call the M's and W's twill; in Sweden it is called Rosenkransen.

Use any size linen desired, sleyed in accordance with the use to which the material is to be put. Two shades of one color are advised rather than two colors showing a sharp contrast such as those we used for photographic reasons.

For place mats a border can be woven on all four sides or just at the ends. For towels weave a wide border at one end, a narrow one at the other. Table or bureau scarves could look well with narrow borders along the sides and wide ones across the end. In any case, when threading, plan the repeats of the border the required number of times to give desired width.

Threading:

Right border: thread 8, 7, 6, 5, 4, 3, 2, 1, the desired number of times;

Centre: thread the M's and W's the desired number of times ending with the W as at the start;

Left border: thread 1, 2, 3, 4, 5, 6, 7, 8, the desired number of times.

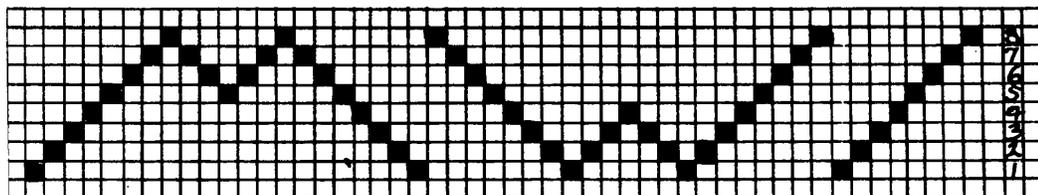
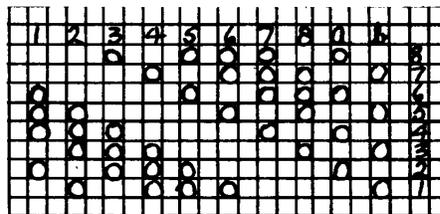
Treading:

Border: treadle 6, 7, 8, 1, 2, 3, 4, 5, repeated desired number of times

W: treadle 6, 7, 8, 1, 2, 3, 4, 5, 4, 3, 2, 3, 4, 5, 4, 3, 2, 1, 8, 7, 6.

M: treadle 5, 4, 3, 2, 1, 8, 7, 6, 7, 8, 1, 8, 7, 6, 7, 8, 1, 2, 3, 4, 5.

Repeat the M's and W's the desired number of times balancing the design with the W and ending with the border the desired width.



LOOM LANGUAGE

- Breaking*—The process of breaking the woody center of the flax stem into small pieces by threshing it with an indented wooden mallet.
- Distaff*—The rod or staff for holding the hank of flax fibres, from which the fibres are drawn in hand spinning.
- Hackle* or *heckle*—Heavy combs across which flax is drawn to separate it into lengths.
- Hackling* or *heckling*—After *breaking* and *scutching*, the flax is finally heckled. This is the process of combing the flax to remove the remaining woody particles; and to make the flax fibres lie parallel to each other in hanks. The hanks are then wound on the distaff ready for spinning.
- Line linen*—Single-ply linen yarn spun from long-stapled flax fibres.
- Ply*—One of the twists or strands in yarns made of two or more strands twisted together.
- Plyed yarn*—A yarn made of 2 or more strands twisted together.
- Retting*—The process of steeping flax stems in water to remove the adhesive substance which binds the bast fibres to each other and also to the central woody portion of the flax stem.
- Rippling*—The process of separating flax seeds from the stocks.
- Scutching*—The process of beating the flax with a broad wooden blade to detach the woody matter from the fibres. This process comes after *breaking* and before *heckling*.
- Shocking*—After the seeds are removed (rippling) the flax stocks are tied in bundles and placed in small shocks, shooks or stooks to dry. This process is called *shocking*.
- Skein*—A coil of yarn. Technically a skein of cotton or wool should be 54 inches around, a skein of linen 90 inches.
- Spinning*—The process of drawing out slivers of yarn fibres and twisting them into yarn.
- Tow*—Coarse, broken, short-stapled hemp, flax or jute fibres which are spun into rough yarn.
- Yarn*—Thread of any kind, produced by spinning. Frequently refers only to woolen thread.

50-50 weave—This term is usually applied to plain weaves and twill weaves woven of the same size thread in both warp and weft. It means that there are exactly the same number of weft shots per inch as there are ends per inch.

2/2 twill—This term refers to the twill weave in which the weft goes over two warp threads and under two warp threads throughout.

THE WEAVER'S BOOK SHELF



By Boris Veren

What a wet, wild and windy finale to our linen picnic of the other month. The south storm winds appeared suddenly, and within ten minutes our picnic pasture was a lake, with floating hard-boiled eggs being rolled down the cliffs into the sea; the finest of faience being crushed under the hurrying heels of fleeing weavers; salt-glazed bean pots being dissolved in more salty brine; potato salad and cole slaw spattered on lichen-covered rocks where later gulls gobbled up the work of my kitchen. Seven sheets into the wind in that storm, with the addition of towels, table runners, napkins . . . almost the entire linen supply of Sweden. And not a dry towel left, and there were 64 inches of rain to come during that short season!

So to home to dry-out before our Franklin fireplace, and then to replenish our supplies of linen from our chest containing newly acquired flax weavings from Finland. By this time, you know darn well that although your book correspondent may be all wet, that he does have a new book up his sly soaked sleeve. Be patient, be patient.

My first childhood memories of Finns and water and towels goes back to my old Chicago days, where on most Saturday nights, my older brother would treat me to the wonderful weekly experience of the Finnish steam-bath. These baths were also known as Turkish or Russian baths, and were patronized mostly by Russian and Polish immigrants and their American born children. We would arrive Saturday evening with a change of clothes, a basket of corned beef and pastrami sandwiches on dark rye bread, Kosher dill pickles, and cherry brandy to put into what Mary Black so aptly termed: that ubiquitous cup of tea . . . except in our cultural transplanted old world milieu, we used glasses instead of cups, perhaps so that the children could see the red steamy swirl of brandied cherries slowly descending through amber Russian tea. We then entered the steam room, and our older brothers and uncles would dash buckets of water against hot rocks to promote even more steam. We boys would then have to drop to the floor gasping for breath. Later, we laid ourselves on wooden benches where a gargantuan Finn rubbed and pummeled us with enormous fists and sponges, while we yelled with pain and pleasure. We were then dismissed and after taking a plunge into a cool pool we wrapped enormous Turkish towels around us, and after supper with the grown-ups, we were permitted to be kibitzers at the poker and pinochle games that lasted until dawn of Sunday.

This wonderful happy experience was all but forgotten until the other month I received a book from Finland called: PELLAVASTA KUDOTTUA, by Kaarina Gustafsson, and Martta Saarto, and exploring its pages of flax weavings (for that is what "Pellavasta Kudottua" means), I again sweated with delight of remembrance of things past. But time now to tell you of

the book. This "linen closet" is a lavishly illustrated collection of contemporary Finnish flax weavings, with 141 photographs of beautiful Finnish handwoven textiles, with their working drawings, drafts, treadling tie-ups, and weaving directions in Finnish. The book is further embellished with nine color illustrations.

Before I come to the designs themselves, I should tell you that most weavers can make out the drafts with no trouble at all, and that in most instances the text can easily be deciphered with Aina Ringler's FINNISH-ENGLISH WEAVING GLOSSARY (.75). Most of the technical words repeat themselves for each of the patterns. For example these three words: "loimi" means warp; "kude" will mean weft; and "pirta" is translated as reed. Other common weaving words specific to the text might be "pellavalankaa" which means flax linen thread; and "rhodinlankaa" means towlinen. Do not be frightened by these vowel-filled lengthy words. In comparing these flax weavings with the textiles and patterns found in the last Swedish portfolio: "Monsterblad No. 12 Linneavnader", I would say that the Finnish ones were more dramatic, more sophisticated in design, more complex in technique, rougher in textural effect, and therefore I imagine more interesting to the serious weaver, and all bearing out the statement in the preface of the book that this is professional designing done for professionals. These are no simple peasant or quaint weavings. All are shed and shuttle weaving, including most of the designs from Pattern No. 111 on, which are intended for the draw loom, but could be done by pick-up methods. As contrast is the work given by Matilda Wahe in PITSIA KANGASPUISSIA which is the typical beautiful "homecraft" type of designing in which the simplest of equipment is used (2-harness loom, and not more than 4 harness counter-balanced).

PELLAVASTA KUDOTTUA is a published treasury of hand and bath towels, table cloths, napkins, place settings, pillow coverings and even upholstery material! The book should satisfy the curiosity of not only the 4-harness weaver, but especially the adventurous multiple harness weaver, for there are many, many 6, 8 and 12 harness weaves. I may mislead you in thinking that this is only for the virtuoso weaver. It is not. The wonderful restrained designing would be appreciated by weavers of all technical and artistic stages. My enthusiasm for this super collection could be considered sane and conservative, for I found that at the Long Beach conference of Southern California Handweavers that my customers were "selling" me the book, and were pointing out to me many wonderful features of the book. This happened also at the Santa Rosa conference of the Northern California Handweavers, and through the delight and enthusiasms of visiting weavers to our book booth, PELLAVASTA KUDOTTUA became our best seller. Mrs. Harriet Tidball who also attended both conferences was equally enthusiastic, and as I saw and heard her at times showing pages of this book to weavers, pointing out a technical problem and explaining and solving the problem, I asked her if she would write up a long article on some of the weaves and techniques found in PELLAVASTA, and also to make plain and simple to non-Finnish reading weavers

the draft symbols and some detailed instructions and helpful hints. She promised that she would do this article for SHUTTLE CRAFT readers, and what's more you will find it on page 4 of this August-September issue. You can have the pleasure of owning the book now. It is priced at \$3.75 and as you know can be ordered from Craft & Hobby Book Service, Coast Route, Monterey, California.

PROPORTION, COLOR AND DESIGN

The following are a few references which should prove useful when planning your linen projects:

¹SHUTTLE CRAFT, June-July 1957, "New Patterns for Skirts", by Harriet Tidball. This is an excellent article on color, texture and proportion especially as applied to planning horizontal and vertical stripes in handweaving.

²SHUTTLE CRAFT BULLETIN, November 1929, "Proportion and Design for Towels", by Mary M. Atwater. Sometime when space permits, we will reprint this article. If you are fortunate enough to have copies of the old SHUTTLE CRAFT bulletins, look this one up. You will find it helpful when planning and designing towels.

³READY REFERENCE TABLES, published by the Shuttle Craft Guild, November 1957. See the *Table of Standard Sizes* which gives the standard sizes of all the most used household linens.

⁴INTERIOR DECORATING, THE HANDLOOM WAY, by Harriet Tidball. Pages 6 through 11 are devoted to the use of pattern, texture and proportion in handweaving. Although it was written with Interior Decorating fabrics in mind, the information can be applied to the designing and planning of every piece of handweaving.

More About Linens

The following warp sets are suggested for 40/2 linen:

Two-weft weaves (Summer & Winter, Bateman, etc.)	30 per inch
Lace Weaves (Atwater-Bronson, Huck, Spot, etc.)	36 per inch
Interlacements of over-2-under-1 (Jeans Twill)	36 per inch
Interlacements of over-3-under-1 (Double Twill)	40 per inch
Interlacements of over-4-under-1 (Damask)	45 per inch

Finer materials such as 50/2, 60/2, 70/2, etc., will require closer settings but in the same ratios.

Once the weaver has learned to handle linens successfully and easily—and it can be done—there are many beautiful articles which can be woven. Linen is expensive so projects should be planned to avoid waste and if sold should be priced to bring the weaver a just return. Linens are luxury fabrics which should be honored and as such should be reserved for the use of those who truly appreciate them.

¹Available from the Shuttle Craft Guild, Bedford, Nova Scotia, Canada or the Craft and Hobby Book Service, Coast Route, Monterey, California @ .75.

²Out of print.

³Available from the Shuttle Craft Guild @ .50.

⁴Available from the Craft & Hobby Book Service @ \$3.50.

The LOOM-SIDE MARKET

We were delighted to have a visit this summer from Mr. and Mrs. Cliff Hotchkiss who own and operate their Tranquillity Studio in Cornwall Bridge, Connecticut. They showed us samples and made up articles which they have designed and have had woven for sale through their studio. All the samples and articles were made of Briggs and Little wools. We won't give away any of their design ideas, but after having seen these materials, they reminded us again of the soft, heathery range of tweed colors that are available in Briggs and Little wools. They reminded us too of the many uses to which these wools can be put: car coats, suits, skirts, sport jackets. Last month we suggested using this tweed yarn for authentic reproductions of the old colonial overshot coverlets; this month, we would like to suggest that you use them for pattern weft in the linen and wool runner (experiment #3) outlined in Miss Black's article.

And while talking of threads, we should mention that the other thread suppliers advertising this month—Searle Grain, Lily Mills and George Swanson—all carry linens for your "Weaving With Linen" projects. Searle Grain carries a good stock of bleached and unbleached, mercerized and unmercerized linen in a variety of weights plus some colored linens. Lily's have six weights of linen: 20/2, 30/2, and 40/2 warp linens and 10/1, 14/1 and 20/1 weft linens. The 30/2 and 14/1 come in bleached and unbleached only, the other four weights come in a wide range of 25 colors. By the way, although not strictly linen yarns, Lily's also carry a stock of 20/2 jute yarn (Jute-Tone) in 16 colors, which are fun to work with for place mats and rugs, to name two ideas which we think of at the moment. George Swanson stocks several lines of linen including Contessa, Lily, Ludlow, Square Sale and others and he'll be glad to send you a price list on request of any or all of his yarns and threads.

Space does not permit us to tell you about all our advertisers, but we must apologize to SHUTTLE CRAFT readers and to Mr. Leclerc for a mistake which got past us in both the May and June-July issues of SHUTTLE CRAFT. That is, the caption said "Yardages weave more quickly and evenly on the Leclerc counter-balanced loom" and was placed under a picture of the Leclerc jack-type loom. We are the proud owners of one of Mr. Leclerc's jack-type looms and hasten to reassure you that yardages—and for that matter any technique or type of weaving—weave more quickly and evenly on the Leclerc *jack-type loom*.

When you write to any of our advertisers please state that you saw their advertisement in SHUTTLE CRAFT. This is proof to them that their advertisement is of value.

P.S. Lily's now stock a new size of linen—10/2—in white, oyster and 22 colors, put up on 1 lb. cones or 2 oz. tubes.

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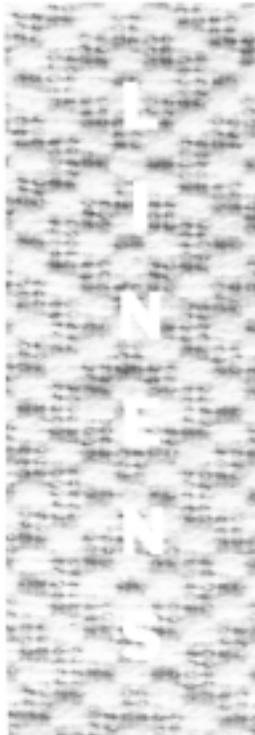
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