

Cover Photograph: REFLECTION, A Transparent Tapestry of Cotton and Wool, Multi-Colored, by Trude Guermonprez, San Francisco, California.

SHUTTLE CRAFT

June - July

PORTFOLIO

1957

SHUTTLE CRAFT

THE MONTHLY BULLETIN OF THE SHUTTLE CRAFT GUILD
Volume XXXIV, Number 6-7 **June - July** 1957

Table of Contents

- 1 NEW PATTERNS FOR SKIRTS, by Harriet Tidball
- 8 **TAPESTRY THROUGH THE AGES**
THE WEAVING OF TAPESTRIES, PART II, by Trude Guermontprez
- 16 **MEET THE AUTHOR**—Trude Guermontprez
- 17 **THE MULTIPLE-HARNESSE WEAVER**
A BASIC DRAFT, by Harriet Tidball
- 19 INTERPRETING PROFESSIONAL DRAFTS, by Harriet Tidball
- 25 **THE WEAVER'S BOOK SHELF**, by Boris Veren
THE LACE WITH THE DELICATE AIR
- 27 **THE LOOM-SIDE MARKET**
Recommended Sources
- 34 **Directory of Services**
- 33 **FROM WEAVER TO WEAVER**

The Shuttle Craft Guild was founded in 1922 by Mary Meigs Atwater, Dean of American Handweaving, who edited the BULLETIN until 1946.

Editor: Harriet Tidball
(Mrs Martin Tidball)
Kelseyville, Calif

Business Manager: Boris Veren
Coast Route
Monterey, California

Photography by: Martin Tidball

SHUTTLE CRAFT is printed in the USA, and mailed from Monterey, California
Annual subscription to the regular edition of SHUTTLE CRAFT.....\$ 7.50
Annual subscription to the Portfolio edition of SHUTTLE CRAFT.....\$17.50
(The Portfolio edition is the same as the regular edition but includes woven samples of some of the textiles for which directions are given in the text.)

Copyright 1957 by Harriet Tidball

NEW PATTERNS FOR SKIRTS

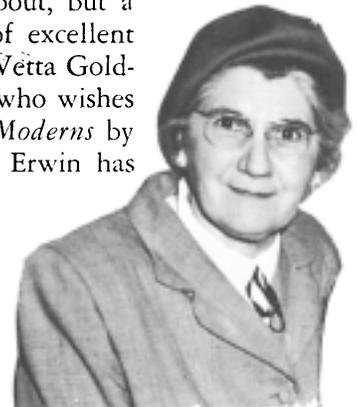
by Harriet Tidball

Skirts are the special interest of weaver Esther Hudson of Santa Rosa, California, and with two daughters, five granddaughters and numerous friends to keep supplied with her rainbow-hued creations, there is always a skirt warp on one of her looms. Every time I see one of Mrs Hudson's skirts I am struck afresh with the sparkling beauty of her designs and their unusual, vibrant color harmonies, making each one not just another handwoven skirt, but an individual creation. I had concluded that Mrs Hudson had unusual talent for doing something with colors which few can manage, so it was with amazement that I found Mrs Hudson's many students weaving skirts as beautiful and individual as hers. (Mrs Hudson has taught handweaving at Santa Rosa College for ten years.) This made me think that perhaps she had some system of designing, something to pass along which could be useful to other weavers. So I took a trip to Santa Rosa to talk to Mrs Hudson about her skirts.

When I asked what her special designing method was, how she achieved her handsome stripes and daring color harmonies, the answer Mrs Hudson gave me was, "It's all a matter of formula." Well, if there was a formula which could help one to such an achievement, I wanted to know it, and other weavers would too.

Mrs Hudson says, "My skirts are all color studies, and so I use a warp threaded to simple four-harness twill and never introduce any pattern techniques." However, as she developed her approach to the study of color harmony, I found that she was talking a great deal more about proportion than about color. "The important thing to realize is that any and all colors harmonize if combined in the right proportions." Below is the skirt designing system which Mrs Hudson developed for me in the course of our conversation.

The designing of a skirt starts with the person who is to wear the skirt. Analyze the person's natural coloring to determine whether the dominant color should be warm or cool, vibrant or subdued, pale or dark. Then analyze the person's figure to determine where the color stripes should be placed on the skirt, whether they should extend horizontally or vertically, how strong the stripes should be, and how wide. This analysis requires some knowledge of costume design, a subject which most of us know too little about, but a very profitable subject for investigation. There are any number of excellent books on costume design, and *Art in Everyday Life* by Harriet and Vetta Goldstein is one of them. Another book, which will interest the person who wishes also to teach herself to design and make clothing is *Clothing For Moderns* by Mabel D Erwin, Revised edition 1957, Macmillan, \$5.90. (Miss Erwin has



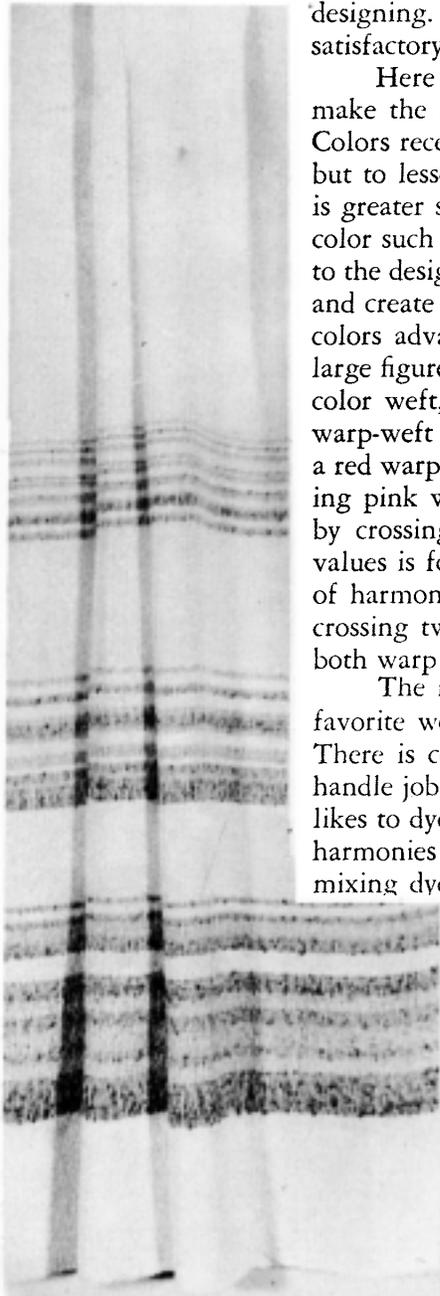
been Professor of Clothing and Textiles at Texas Technological College, now retired, as well as a weaver and a Shuttle Craft Guild member for many years.)

When designing the stripes, use strips of wrapping paper about six inches wide and exactly as long as the skirt should be from waist band to hem. Sketch stripe arrangements in full scale on these, to make sure of the exact placement and proportions of the stripes, and use the final strip as an over-all guide during the weaving.

Before selecting the exact colors, it is necessary to have the materials in mind and the manner for handling them on the loom, since a color in a skein of yarn and a color interwoven with another, are altogether different things. For the warp, select the main color which seems exactly right for the person. Use a single color because then anything can be done with it in designing; a mixed warp gives a pre-determined effect which restricts or eliminates further designing. A fine warp which sets well at thirty ends per inch gives the most satisfactory results.

Here are some facts to consider in selecting the warp color which will make the stripes do what one wishes. Colors vibrate most on a black warp. Colors recede and lose their character on a white warp. The same effects occur but to lesser degrees with light and dark (or high and low) values, so there is greater stripe emphasis on a dark shade than on a light tint. A rather pure color such as red, blue, green in primary hue is more adaptable to changes and to the designing of unusual effects than an exotic tone; start with a simple color and create the exotic tone desired through mixing warp and weft colors. Light colors advance and dark colors recede, so a dark color should be used for a large figure. Although the base *hue* may be changed greatly by using a different color weft, do not try to achieve a greatly changed color *value* through the warp-weft mixture. For example, a rich violet color may be made by crossing a red warp with a bright blue weft, but avoid such an extreme contrast as crossing pink with navy, or the most extreme effort of all—trying to make grey by crossing black and white. The tendency in the use of strongly opposed values is for each color to separate out, giving a salt-and-pepper effect, instead of harmonizing into one vibrant whole. A much richer color is achieved by crossing two colors than by selecting the desired final color and using it for both warp and weft.

The next step is selecting the weft material or materials. Mrs Hudson's favorite weft material is fine, nubby rayon which she often uses throughout. There is considerable variety in nubby rayons, available from sources which handle job-lot materials, usually in white and often in colors. Since Mrs Hudson likes to dye her own yarns, color is not a problem to her. She designs her color harmonies from a color wheel and then dyes to get exactly what she wants, mixing dye pigments so that with only a few jars of dye she can have every

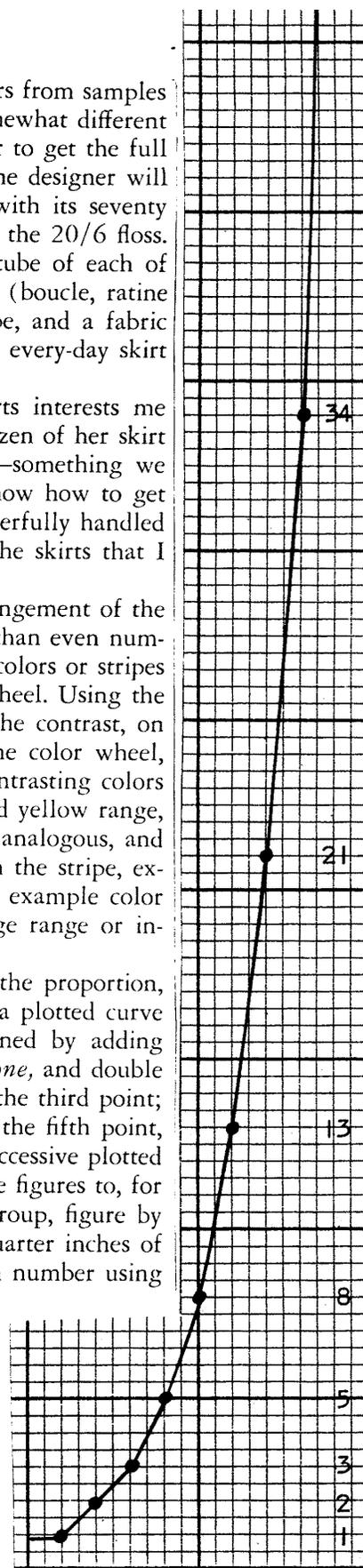


imaginable color at her fingertips. The weaver who selects colors from samples or from materials on hand (as most of us do) will have a somewhat different problem; different types of yarns must usually be used in order to get the full color range desired. If this mixture of yarns is not desirable, the designer will find that the Lily color palate for Article 114, perle cotton with its seventy colors gives excellent selections. The most advantageous size is the 20/6 floss. Fortunate is the weaver who can keep in stock one 2-ounce tube of each of these colors. For the body of the fabric, the fine, rough rayon (boucle, ratine or nub) gives a splendid body or hand, a beautiful, soft drape, and a fabric which can be adapted appropriately to any use from a sport or every-day skirt to a cocktail or evening skirt.

Speaking of materials, one point about Mrs Hudson's skirts interests me greatly. She uses no metallics. After looking at more than a dozen of her skirt lengths I gained the feeling that metallics may be a crutch—something we can add to a design, sure to give it sparkle, when we don't know how to get that quality any other way. The designing problem was so masterfully handled that it was not until I had returned home and was recalling the skirts that I became aware of the absence of metallics.

It is in the actual selection of the weft colors and the arrangement of the stripes that Mrs Hudson uses rules. First of all, use odd rather than even numbers; that is, in designing stripes use three, five, seven, or nine colors or stripes rather than two, four or six. Select the colors from the color wheel. Using the basic color as a foundation, select the color exactly opposite, the contrast, on the color wheel as the accent color to include one-third of the color wheel, extending on either or both sides of the contrast. Thus, the contrasting colors for red may be in the green and blue range, or in the green and yellow range, or in the blue-green and yellow-green range. These colors are analogous, and as many analogous colors as desired may be used. Then, within the stripe, expand the base color to one-sixth of the color wheel. With our example color scheme this means that reds in the red-violet or the red-orange range or incorporated, or a slight degree of both.

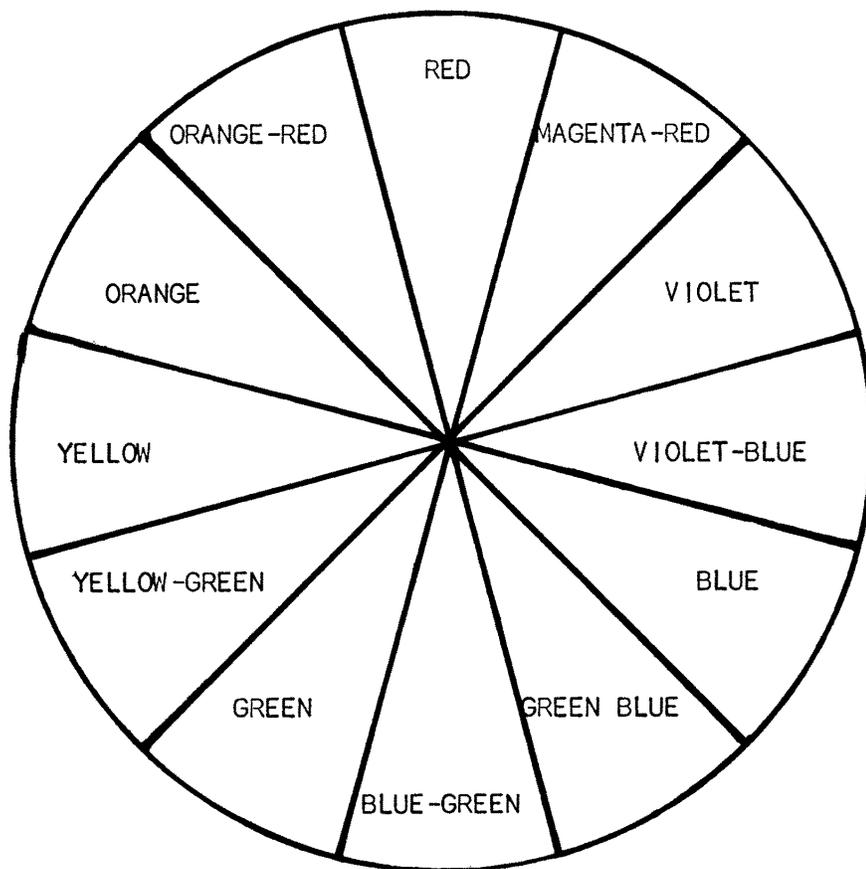
For the selection of the amount of each color to use, or the proportion, use the Summation Curve. This curve, in its simplest form, is a plotted curve for which the values of successive points have been determined by adding the amounts of the two preceding points. Start with the value *one*, and double it for the second point; add these two together to give *three* as the third point; then add the last two for *five* as the fourth point; the *eight* as the fifth point, and so on. The curve is shown on the marginal diagram. The successive plotted points are: 1: 2: 3: 5: 8: 13: 21: 33: 55: etc. To apply these figures to, for instance, five colors which are to be incorporated in a stripe group, figure by number of shots of each if yarns are all the same size, or by quarter inches of weaving if yarns are different; assign a color to each proportion number using



1: 2: 3: 5: 8, or 2: 3: 5: 8: 13, or 3: 5: 8: 13: 21 shots or quarter inches of each to compose the stripes. The unit selected for figuring (it could be inches, yards or millimeters if any of these were practical for the problem at hand) is unimportant as long as the proportions are held.

In some cases, in selecting the proportions for each color within the stripes, particularly if she is using seven or nine colors, Mrs Hudson will use one Summation Curve for the warm colors, and use the Curve over again for the cool colors. For instance, in selecting to use twice as much on the warm side (or one-third of the color wheel in six colors) as on the cool side (with one-sixth of the color wheel and three colors) she may use the Summation Curve starting with point two (2: 3: 5: 8: 13: 21) for warm colors, and starting with point four (5: 8: 13) for the cool colors.

Mrs Hudson uses the first two figures of the Summation Curve for her overall planning. There should be twice as much background area as stripe area, or twice as much stripe area as background area. These same two-to-one or two-thirds and one-third proportions apply to the other variables: warm and cool colors (warm colors are those which are on the red-orange half of the color wheel, cool colors are those on the blue-green half); dark and light color values; dull and shiny yarns; rough and smooth yarns.



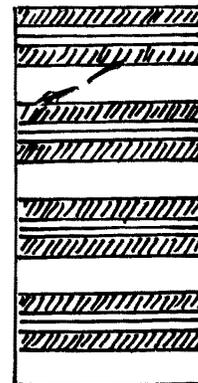
So much for yarn and color selection; the next problem is arranging stripes. There are three basic types of stripes:

- (1) Regular stripes on regular backgrounds, which are symmetrical stripes.
- (2) Regular stripes on irregular backgrounds, or the reverse of this, irregular stripes on regular backgrounds.
- (3) Irregular stripes on irregular backgrounds, which are miscellaneous stripes.

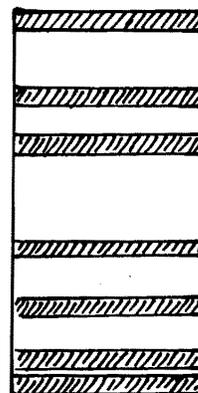
These three strip types are illustrated in the marginal diagrams. One further differentiation in stripe types must be considered. A stripe may be plain: just one color against a background of another color; or it may be emphasized: two or more colors incorporated as a stripe group against a single color background. This last may be called a compound stripe. It is the type most adaptable for skirts.

Any of the three stripe arrangements may be used vertically or horizontally in the skirt design. The selection of both the stripe type and the direction in which it is used must be determined by the figure and personality of the person who is to wear the skirt, and by the purpose for which the skirt will be worn. In designing a reserved and somewhat dignified effect for a mature figure, one would use the first stripe type with the stripes oriented vertically, and in low keyed colors. To give a freer design for an inbetween figure (that great average of not young, not old, not thin, not stout, but past the eighteen year old bloom) select one of the second style arrangements and place the stripes horizontally, using mainly shades of colors rather than tints or vibrant colors. For the youthful figure and a gay aspect, use stripes of the third class, oriented horizontally, with strongly contrasting, sparkling colors. The situations which lie between these three are handled by modified color harmonies and selections can run all the way from subdued, almost monochromatic (different values of the same color), to the vivid, vibrant. Further adaptations to figure are made through placement of the stripes on the skirt length; shifting the emphasis toward the hem or toward the hips, concentrating the stripe in a band or spreading it widely through the entire length.

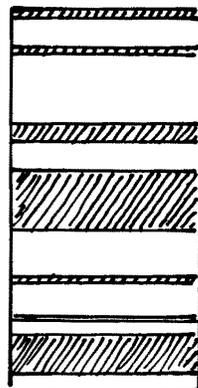
Thus far the problem of skirt designing has been one of analysis, recognizing proportions, selecting colors and stripe form. The big job now lies in integrating these factors into a good design, a beautiful skirt. There is always the approach of planning the stripe design on paper in its full detail, using colored crayons or paints, and then copying the design as nearly as possible on the loom. This is not Mrs Hudson's way. She believes that this kind of planning leads to stiff, uninspired, and often downright ugly results. The way it looks is the thing which counts, and the weaver-designer must be free to modify, add and subtract according to the evident demands of the design, as the work progresses. Mrs Hudson uses the skirt-length of paper for determining the correct type, proportion and placement of the stripe, sketching with pencil instead of with color. But all color designing is done directly on the loom. Only seeing the weft colors as they actually interweave with the warp color can indicate



(1)



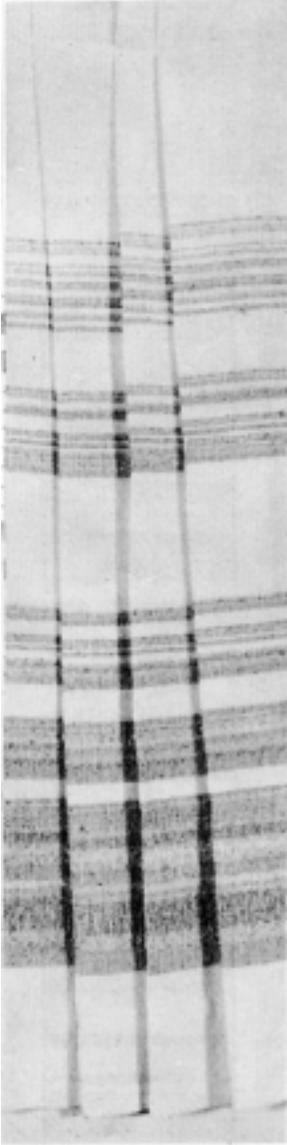
(2)



(3)

to the weaver which color to use when, and the correct place for discontinuing one color and introducing another.

By the time the weaving starts, the weaver should have a mental picture of the desired skirt. Just sit down at the loom and start weaving this picture. As soon as one length is completed, cut it off the loom, press it, baste in the hem and gather or pleat the waist line. Then study the effect. Chances are that it will not match the mental picture. In some respects it may be much more beautiful than one had thought, but in other respects it will fall far short. Analyze carefully what is wrong, and what could be done to correct any faults in design. That is, redesign according to the dictates of this first length, if one is not entirely satisfied with the results. This strip may then be made up into an apron, and the weaver can proceed to the actual weaving of the skirt.



The average warp requirements for one skirt are a five yard long warp, thirty-two or thirty-four inches wide. This length allows for three yard-long panels for making the skirt, one yard for loom loss, beat experimenting and take-up, and one yard for the sample length which is made into an apron. The best warp material is 20/2 perle cotton (Lily Art 114) or 24/2 unmercerized cotton (Lily Art 314) set at thirty ends per inch. Wefts as desired. Thread to four-harness twill (1, 2, 3, 4, repeated throughout). Tie up the loom with six treadles: two to the *a* and *b* tabbys (harnesses 1-3 and 2-4) and the others tied each to a single harness. Do the weaving on the two tabby treadles, and beat to give the desired texture or hand. Use the single-tie treadles as required in weaving the stripes, to emphasize or de-emphasize a color. If a particular color turns out too altered or too vague for the demands of the design, unweave it and try inserting it in the single-harness sheds, using the treadles in 1, 2, 3, 4, order. The maximum color strength, sometimes desirable for a very narrow stripe, is gained by treadling 1, 3, alternately, or 2, 4, alternately. If a stripe color needs to be toned more by the warp, try inserting it in sheds which have three harnesses raised by using a tabby treadle in combination with a single-harness treadle in this order: *b* with 1, *a* with 2, *b* with 3, *a* with 4.

Here is a summary of Mrs Hudson's suggestions on color selection. Select a plain color for the warp. Stripe colors will vibrate more on a dark warp than on a light warp so consider the stripe strength when selecting. The best color harmony will result if designed on the basis of complementary hues. Many colors may be used if two-thirds of the colors are analogous and selected from one-third of the color wheel, the other third complementary to these and selected from one-sixth of the color wheel. All and any colors will harmonize if used in correct proportion. If two colors vibrate, modify one of them through weaving it in the three-up-one-down or one-up-three-down sheds. If the selected colors are too pastel, they combine uninterestingly; even pale pastel effects must have a little in bright colors to develop emphasis. Always start a stripe with a darker value in a rather broad band, to fall hemward. Lighten the values, make the stripes narrower, and add the emphasis colors as the stripe progresses up-



ward. As weft and warp colors interweave, preconceived color ideas will break down; be ready to accept these interlacement changes and to adapt the design to them. Use strong or vibrant colors in narrow bands, low or dark values in broad bands. A great many small stripes give an unpleasantly "busy" effect.

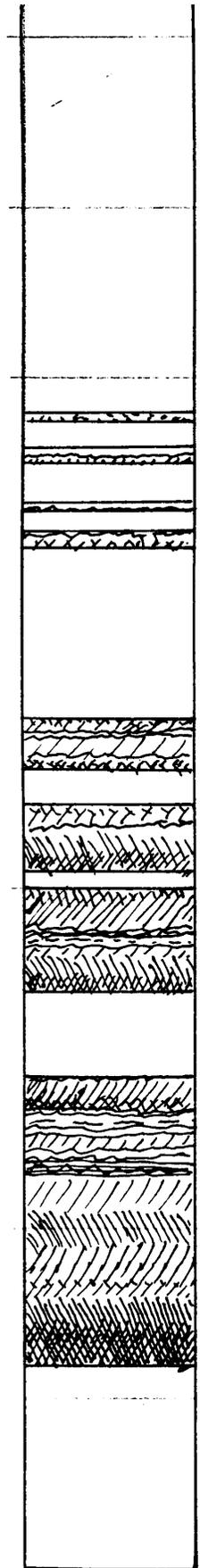
Here is the plan for one of Mrs Hudson's skirts which will serve as an example of the type of designing outlined above.

Warp: 20/2 perle cotton in pimento red (Lily Art 114, Perle 20, color 773)

Weft: Fine rayon ratine. Background color a blue-grey which takes on a radiant warmth when woven on the red, a color which is difficult to describe but is on the light-grey-purple side. For the stripes the contrasting colors were gold to dark yellow-green, with blue, purple and rose, the proportions in the following order from the greatest to the least amount: dark yellow-green, medium yellow-green, chartreuse, golden yellow (these four colors composing two-thirds of the total stripe area and selected from about one-sixth of the color wheel); violet, blue, rose (three colors composing about one-third of the stripe, from one-third of the color wheel). The uneven stripes are three stripes emphasized by different colors and spacings, as shown on the marginal diagram and in the photograph. The thirty inch long skirt has ten inches, or one-third, taken up with stripes, the balance in the blue-grey background color.

Weave: As indicated by the diagram. Each square of the diagram represents one quarter-inch of weaving. Plain areas are background; shaded areas in the striping colors.

A word about the color wheel is pertinent here. I am in complete agreement with Mrs Hudson's belief that a good color wheel is basic equipment for any handweaver who wishes to do good color designing. Making a good color wheel, using water colors or tempera for the color areas, is a project which some people will enjoy. There are many books containing excellent sections on color, including the Webster Unabridged Dictionary and the Encyclopaedia Britannica. *Art in Everyday Life* by H and V Goldstein (\$8.50), previously mentioned, has very helpful material on this subject and, like the two references above, contains color-plate charts. A book devoted to the study is *COLOR HARMONY, With the McDonald Calibrator*, by Sterling B McDonald (\$15.50) which was reviewed in the September 1952 issue of SHUTTLE CRAFT. These last two books are available from the Craft and Hobby Book Service, Coast Route, Monterey, California. Mr Veren also has in stock the *Cheskin Color Wheel* (\$5.00), which I find very useful and keep constantly at hand. The important point is that one needs a little basic study from one of the countless publications which take up color theory, and a substantial, accurate color wheel for reference while designing. A color wheel is as necessary in the study of color as is a map in the study of geography.



TAPESTRY THROUGH THE AGES

THE WEAVING OF TAPESTRIES PART II

By Trude Guermonprez

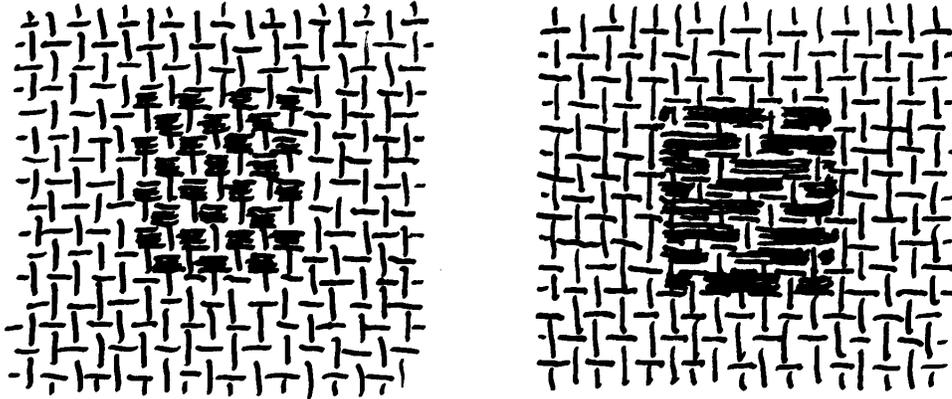
In all forms of art and architecture, as well as in the very young field of industrial design, man has become conscious of the oneness of design, material, technique, function. No more do we enjoy flower carved cast iron pedestals for sewing machines; and the homes we call the most beautiful have to answer our rigid demands for well solved functionalism, but pleasing in aesthetic aspects as well. Tapestries were part of interiors for the medieval man, fulfilling a definite functional role, as I have pointed out in my previous article. Today the actual need for fabrics in homes—from the protective point of view—is almost completely eliminated. We have air conditioned, central heated homes; insulating building material may be opaque or translucent, synthetic leathers may cover furniture, a textured paint may enliven a wall. The artist-craftsman finds himself not needed in the strictest sense of the word. But the awareness of the abstract form value of texture and color by modern painters, and the modern architect's increased emphasis on the self-expressive beauty of structure, has led to a new recognition of the work of the contemporary craftsman.

With all the modern comfort we still need a feeling of warmth, the emphasis of a well designed individually interpreted piece of craft. The tapestry designer-weaver can yet find justification for his work. His contemporary thinking, his experience in a great variety of weaving structures, opens up a large field of personal expression. He will be able to design the piece of textile which enlivens a wall without being too demanding, or he will make the screen which divides and enhances too, or he will be tempted by the beauty of his material to find the right weave in which to present it as a precious, decorative element.

If one is conscious of the beauty of color and proportion, even a carefully executed plaid in a clear plainweave would be used as the theme of a fine wall hanging. Keyed in color to its environment, designed in self-contained proportions, it would provide a feeling of relief for one particular spot in the room. The possibilities of tabby are numerous: by change of size in thread alone, boldly applied color alterations in groups (logcabin, houndstooth, etc), by different texture of thread, by color, and by open and dense settings of warp and weft. The next step from such a seemingly simple weave, though it has to be carefully planned to be satisfactory, might be the designer's wish to introduce some moments of color or texture which are present in neither

the element of the warp nor the continuous weft. Inlay is the answer to this.

Inlay is a form of woven embroidery. To the continuous weft thread an additional thread is layed in partway, either in the same shed or in a treadling which allows the inlay thread to raise above the continuous weft. For

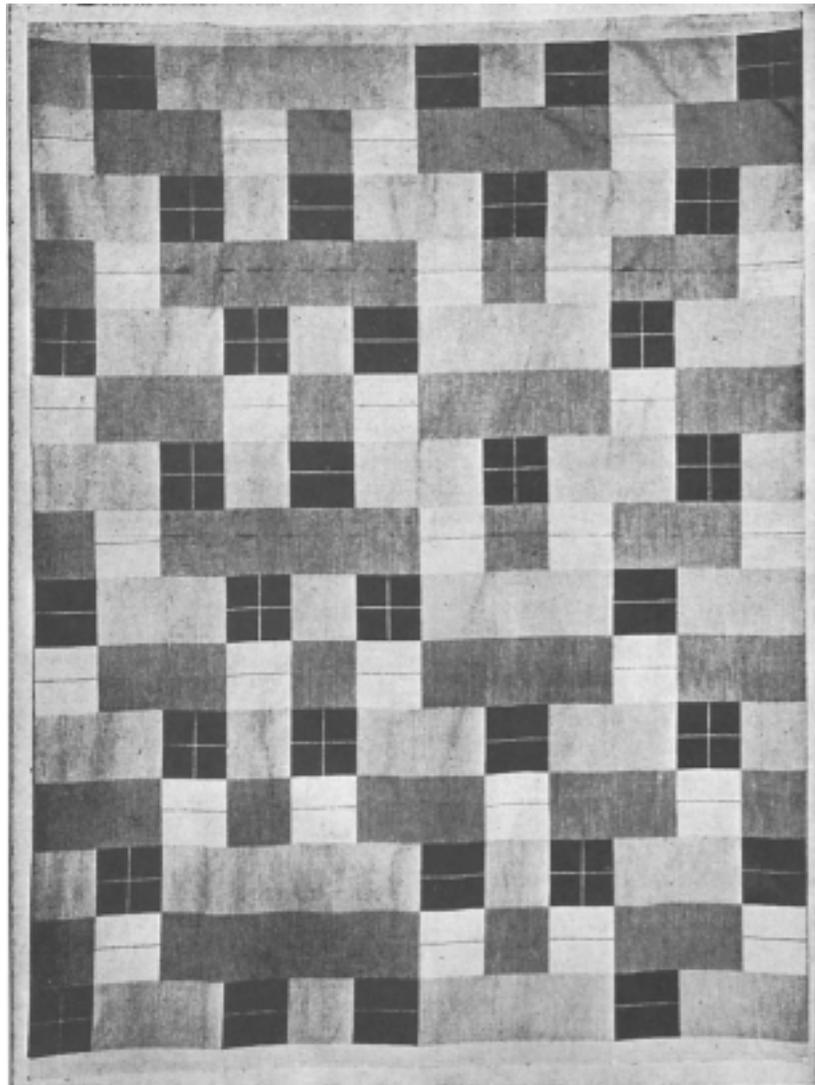


instance: a groundweave in soft green tabby, one inlay block in blue tabby, one inlay block in blue twill. The first block will appear as a fairly even mixture of green and blue, the second as predominantly blue. Thus we are able by the means of the weave, but with one and the same thread, to achieve different nuances in color. What could be more painterly? (See cover photograph.) At the same time we get also a changing expression of texture, which adds to the interest of our design. A French couple of weavers have done remarkable design interpretation in this techn

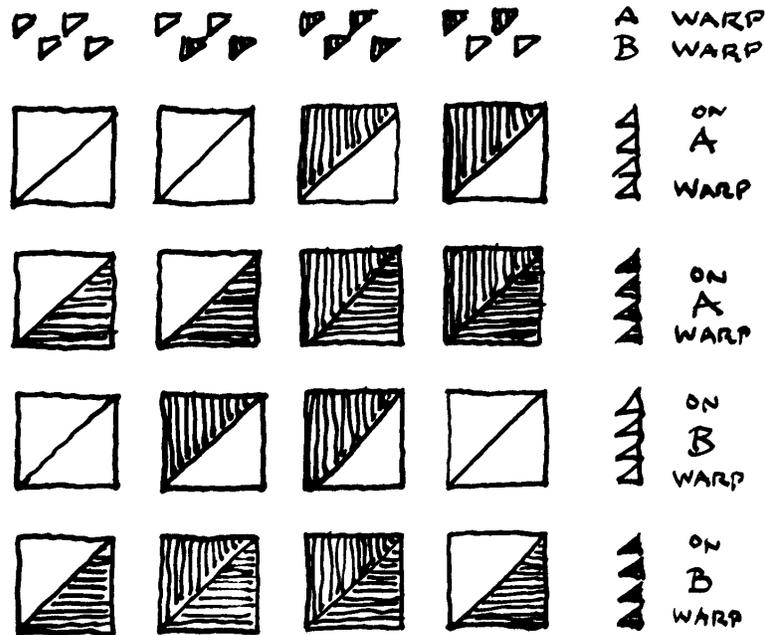
*Liturgical ornament in the weaving,
shows how Plasse Le Caisne
works from a cartoon by Manessier.*



As soon as we have become conscious of the pictorial expression possibilities of pure weaving technique, having had previous experience in different weaves, we shall be tempted to use some of them in a well planned, singular composition. Take for instance the possibility of the double weave. The double weave on a four-harness loom permits us to have literally two sets of warp, each of which can be of a different color, or texture, or both. If we make use of this possibility of changing warps, during the weaving of a piece, and use the weft color/texture in a coordinated fashion, we can make a composition which, though bound by rectangular outlines, can have the excitement of a



*TAPESTRY by ANN ALBERS, Black Mountain College
Bulletin 5.*

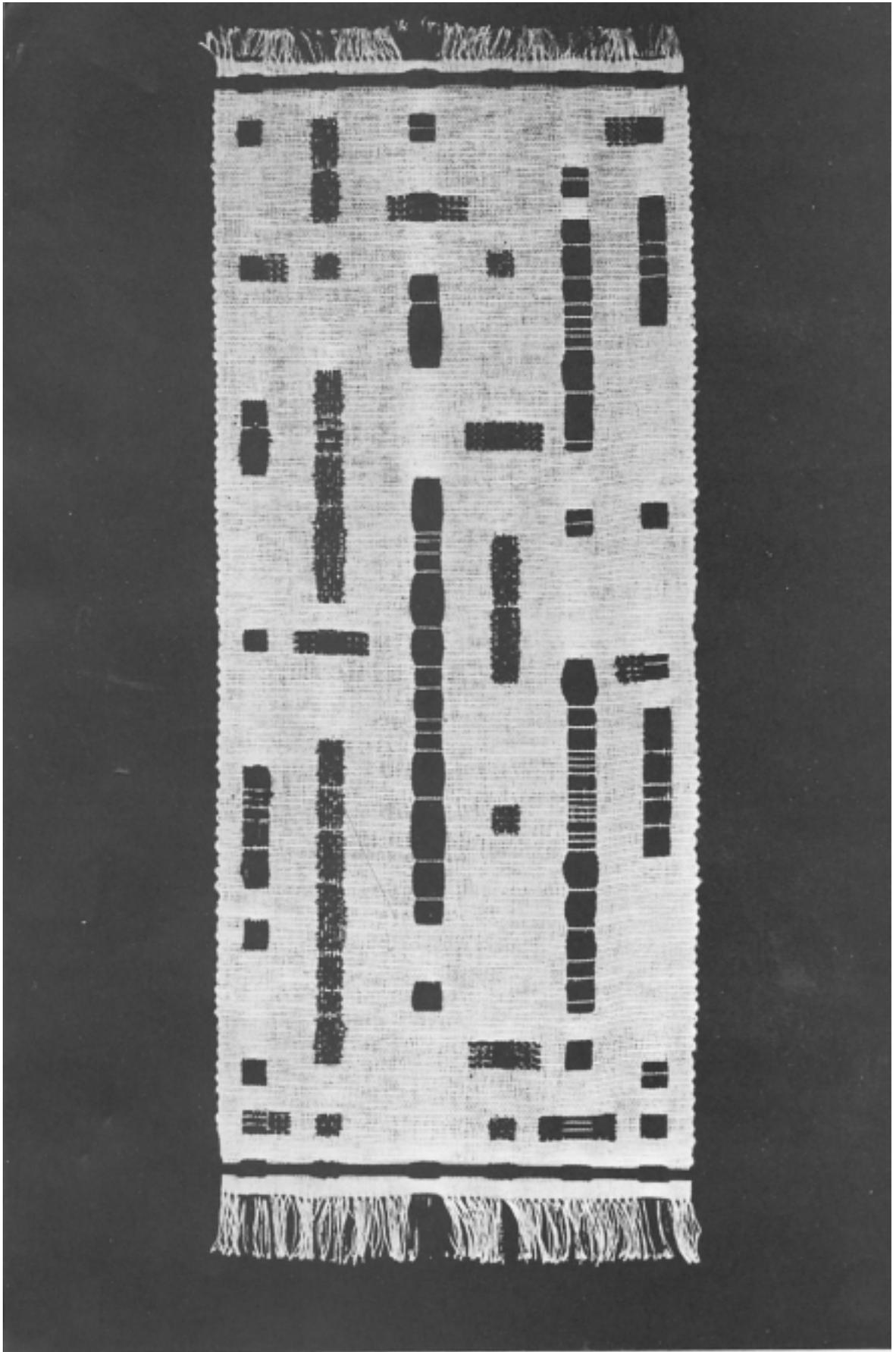


Scheme of some possibilities of color mixture with only two colors in warp and weft on four-harness double weave.

Mondrain painting. On eight harnesses of course the possibilities of warp change multiply. The advance planning of alteration of color order and the proportion relationship of areas, are the decisive factors for a successful composition. Besides using the double weave set-up straight, we can ^{add} inlay to it as a new element of design.

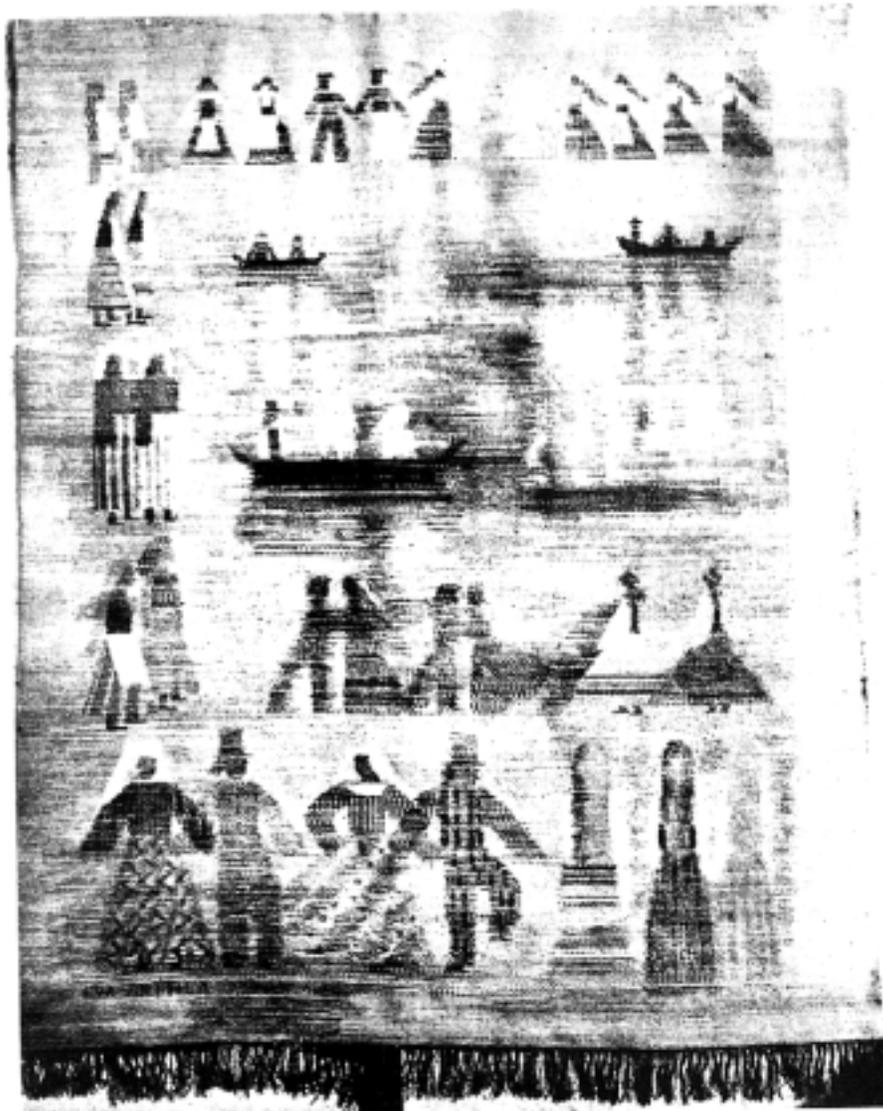
Another useful set-up for abstract compositions is the threading where we use two harnesses only for a groundweave warp in tabby, and where we have from two to six (according to the loom) extra harnesses for brocading warp threads. If the density of the groundweave warp is established throughout, we have only to add warp threads of different color or texture, in spots or areas, according to the plan we have in mind. These threads, distributed over the free harnesses, can be raised or lowered at any time during the weaving of the groundweave. Thus they can float over it for some time, or be woven in with it, or disappear completely, each brocading harness being independent in its action from the others. Spots or lines or areas or outstanding color and different texture will appear on the surface, and clever arrangement of these brocading threads can allow us to make all sorts of geometric figures, even to the extent of stylized flowers and animals, if we so desire.

These are only a few indications of how a certain warp set-up, color, material, threading, are very often the sole design elements with which to



work. The stricter these compositions are planned, the more they will be a true textile expression.

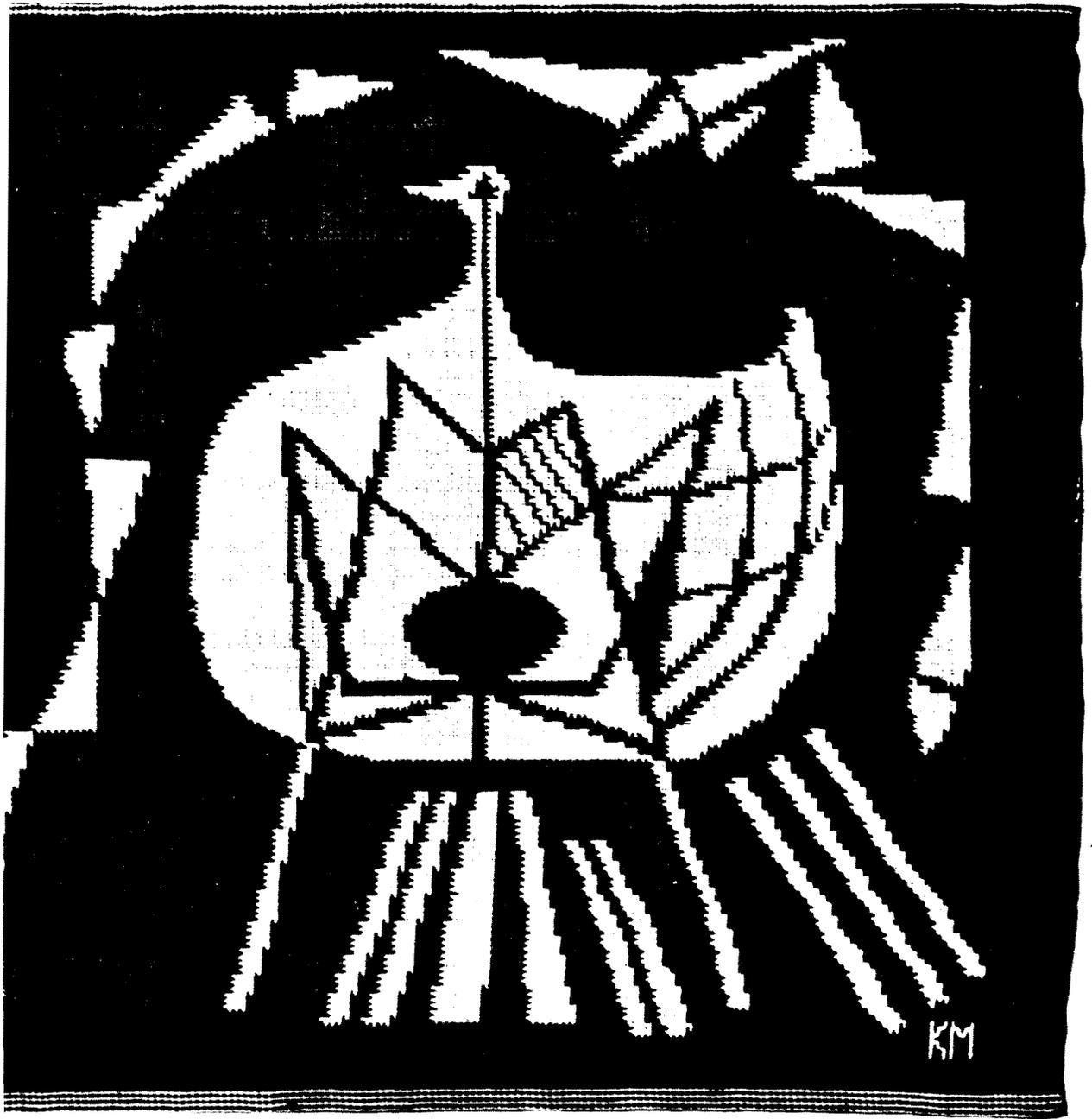
But many of us still wish to have the freedom to express forms which are derived from the visual world around us, rather than those forms dictated by the loom. For this purpose we can find beautiful examples of work in contemporary Scandinavian weaving. The weavers in these countries have been able to develop traditional techniques (such as Finnweave, Tapestry technique) into a more contemporary form of expression than the French tapestry weav-



TAPESTRY by Eva Antilla, Finland.

← *TAPESTRY by Kay Sekinachi, Berkeley, California.*





*Linens TAPESTRY. Design: Kaisa Melanton. Executed by For-
eningen Handarbetets Vanner, Stockholm, Sweden.*

ers have. In the small tapestries of Eva Antilla, or Dora Young, we find that the warp thread, the texture of the weft thread, different interlacing patterns, all enter into the tapestry weaving as design elements. The designer and weaver are one and the same person, and so we find, similar to the aspect of Precolumbian weaving, that the expression of their tapestries is a thoroughly satisfactory, contemporary one. These pieces are small. They will give a lovely distinction to walls in our living rooms, without having to fulfill the function of a protective piece of textile.

In all the suggestions which I made in this article, you will find one recurring theme: that of the well planned lay-out, the synonym of "good design." Unless we study the possibilities and conceive the woven piece as a whole, we will fail. This does not necessarily mean that every detail has to be planned on paper. The restrictive nature of our craft demands pre-planning to a high degree. If we plan to make a piece of artistic value, organization and vision ought to be integrated to an even greater extent. For the sensitive weaver there will then result a preparedness for the happy accident, the instinctual suggestion, which so often occurs during the process of execution. The artist will incorporate these living factors in his design in such a way that the end result will have the breathing, vibrating quality of an organically designed piece. The piece itself has become *design*.

Meet the Author



Biographical notes on Trude Guermonprez, who is the wife of John Elssesser, San Francisco architect-builder, take the form of an outline of her unusual professional career.

Training:

Art and Craft schools in Cologne and Halle, Germany.

Diploma graduation in Textile Design, Berlin, 1933.

Apprenticeship in cotton mill in Czechoslovakia.

Scholarship study in Finland, 1937.

Fellowship for travel and research in Sweden, 1946.

Experience:

Freelance designer in Holland, 1939 to 1947, for architects, mills, production.

Freelance designer in the USA from 1947 to the present. Has worked for Architects Associated, New York; Eric Mendelsohn, San Francisco; Marcel Breuer, Ashville; and for interior decorators, private customers, and for a New York cotton mill (dress fabrics).

Teaching:

Volkshoguel School, Holland, 1944 to 1946.

Black Mountain College, North Carolina, 1947 to 1949.

Pond Farm Workshop, Guerneville, Calif, 1949 to 1951.

California College of Arts and Crafts, Oakland, since 1953.

Exhibitions:

Europe and USA.

All national shows.

At present: New York, The Museum of Contemporary Crafts, rugs and wall hangings, and The Architectural League of New York.

The MULTIPLE-HARNESS WEAVER

A BASIC DRAFT

by Harriet Tidball

Among the multiple-harness threadings there are several which may be considered as basic drafts. These are simple drafts, which in versatility of use may be compared to the twill for four-harness weavers. A review of the versatility factor of the four-harness twill is a means for understanding the versatility factor of these multiple-harness basic drafts.

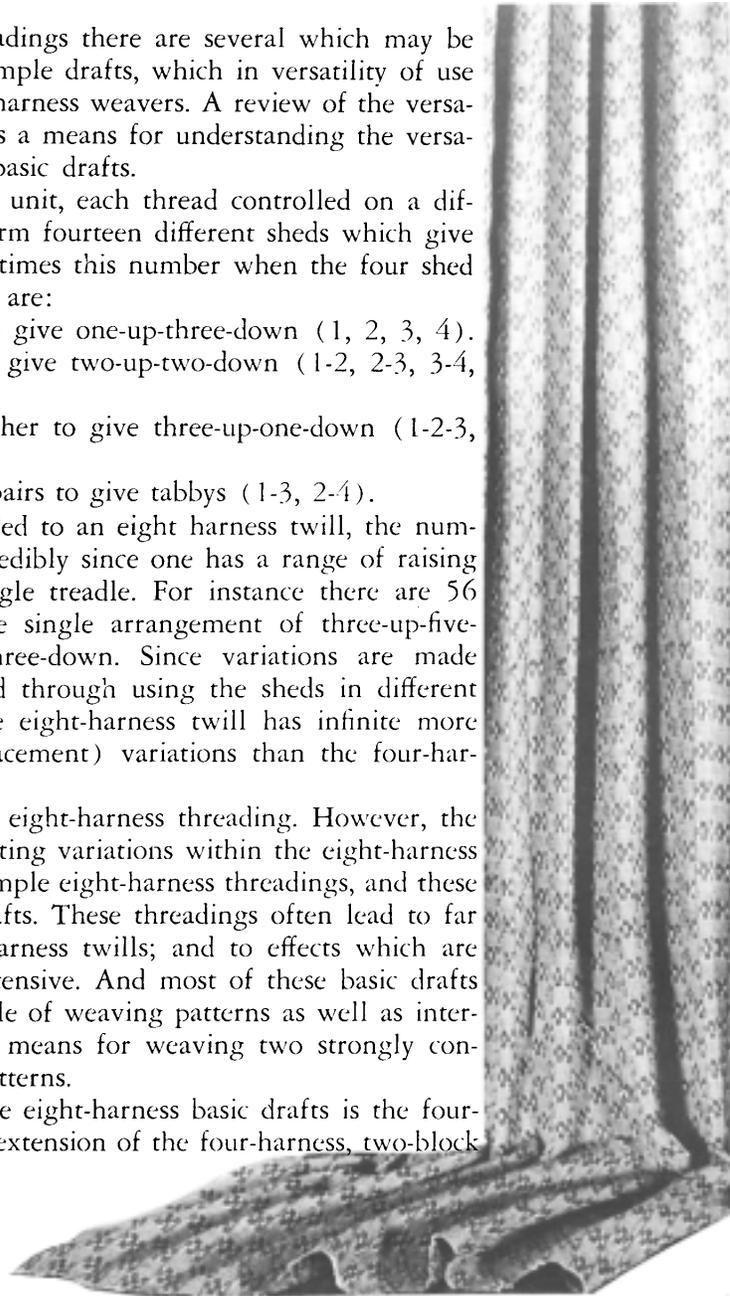
The twill has a four warp thread unit, each thread controlled on a different harness. These four harnesses form fourteen different sheds which give four different weave effects, but many times this number when the four shed types are combined. The possible sheds are:

- (1) Each harness raised alone to give one-up-three-down (1, 2, 3, 4).
- (2) Harnesses raised in pairs to give two-up-two-down (1-2, 2-3, 3-4, 4-1).
- (3) Three harnesses raised together to give three-up-one-down (1-2-3, 2-3-4, 3-4-1, 4-1-2).
- (4) Alternate harness raised in pairs to give tabbys (1-3, 2-4).

If the four-harness twill is extended to an eight harness twill, the number of the shed combinations rises incredibly since one has a range of raising from one to seven harnesses on a single treadle. For instance there are 56 different combinations possible on the single arrangement of three-up-five-down, and another 56 for five-up-three-down. Since variations are made through the use of different sheds and through using the sheds in different orders, it is perfectly obvious that the eight-harness twill has infinite more possibilities for texture (thread interlacement) variations than the four-harness twill.

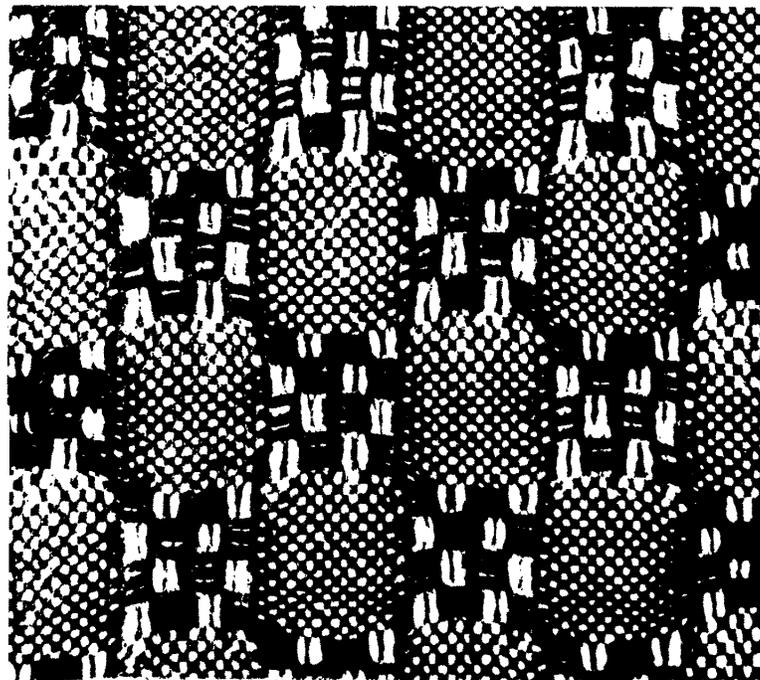
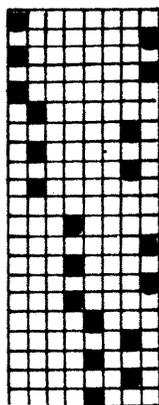
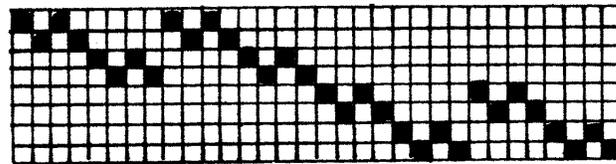
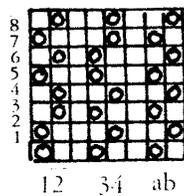
The eight-harness twill is a basic eight-harness threading. However, the multiple tie-up principles used for creating variations within the eight-harness twill may be applied to certain other simple eight-harness threadings, and these threadings are also known as basic drafts. These threadings often lead to far more interesting textures than eight-harness twills; and to effects which are bolder because the drafts are more extensive. And most of these basic drafts have the added interest of being capable of weaving patterns as well as interlacement textures, and of providing a means for weaving two strongly contrasting textures arranged in simple patterns.

One of the most interesting of the eight-harness basic drafts is the four-block opposites threading, which is an extension of the four-harness, two-block



opposites. This draft is, in its simplest form: 1, 2, 1, 2; 3, 4, 3, 4—5, 6, 5, 6; 7, 8, 7, 8. The first half may be considered as an A unit, and it may be repeated as such, and the second half may be considered as a B unit, and also repeated. The curious weaver will see that the A unit is identical to the A unit of the M's and O's draft (See SHUTTLE CRAFT for February, March and April 1957), and the B unit is the same arrangement placed on the second group of four harnesses. All of the M's and O's experimental weaving for these SHUTTLE CRAFTS was in fact, done on this eight-harness threading, with the four-harness draft reproduced through the tie-up.

As an introduction to this basic draft, we are giving one textile which is a very interesting alternate block combination of tabby and an unusual basket weave. This weave produces a firm but softly draping fabric which is suitable for many decorating purposes and would be particularly lovely for baby blankets or full size bed blankets. The unusual feature of the basket texture is that it too is firm rather than having the loose, slipping quality which basket when combined with tabby usually has. Weavers should find many excellent adaptations for this design. A comprehensive study of this four-block opposites basic draft will be continued in later issues.





INTERPRETING PROFESSIONAL DRAFTS

By Harriet Tidball

The weaver who is constantly searching for fresh ideas, new drafts and designs, further knowledge, usually turns to highly recommended weaving books for his new sources. The four-harness weaver can find each handweaving book a new adventure, full of ideas and designs. But how often it happens that the owner of a multiple-harness loom buys an expensive book recommended for multiple-harness patterns, and meets only the terrible disappointment of finding that it contains nothing he can use or even understand. Usually he will find none of the familiar drafts, tie-ups, weaving directions or even photographs, which have been his guides in four-harness weaving; or if he finds one of these, the other elements are missing so he is helpless as far as using the designs is concerned. And unfortunately, study of the text of these books, if it happens to be in English, brings little enlightenment. Books which have brought these disappointments are *A HANDBOOK OF WEAVES* by Oelsner and Dale, *TEXTILE DESIGN AND COLOR* by William Watson, *FABRIC STRUCTURE* by John H Strong, *2500 ARMATURE-INTRECCIO* by Eugenia Poma, *GEWEBE TECHNIK* by Bruno Hauptmann.

The fault, "Dear Brutus," is not in the books, but in the handweaver's limited understanding of the draft forms used in the weaving trade, for which these books are intended. The drafting systems are seldom explained, because the authors of these books pre-suppose that only a professional who understands drafts will be using the books. But actually, the drafting system is simple enough—just an abbreviation of the forms used by the handweavers—and anyone can learn it easily and quickly. There are a few facts to know about the professional drafts:

Professional drafts are usually a square diagram, drawn on cross-section paper.

Within this diagram, the interpreter must be able to read the threading draft, the tie-up draft, the treadling draft.

The threading draft is determined by reading horizontally (from right to left or from left to right, as the weaver prefers),

The treadling draft is determined by reading vertically (from top to bottom or from bottom to top, as the weaver prefers).

The tie-up draft is determined by reading the squares between the tie-up and treadling drafts—that is, by reading the diagram.

In making an analysis of a diagram to determine these points, the first step is to determine the extent of the draft and of the treadling sequence by finding where horizontal and vertical repeats start. This is done by examination and comparison. It is best for the handweaver to start the upper right-hand

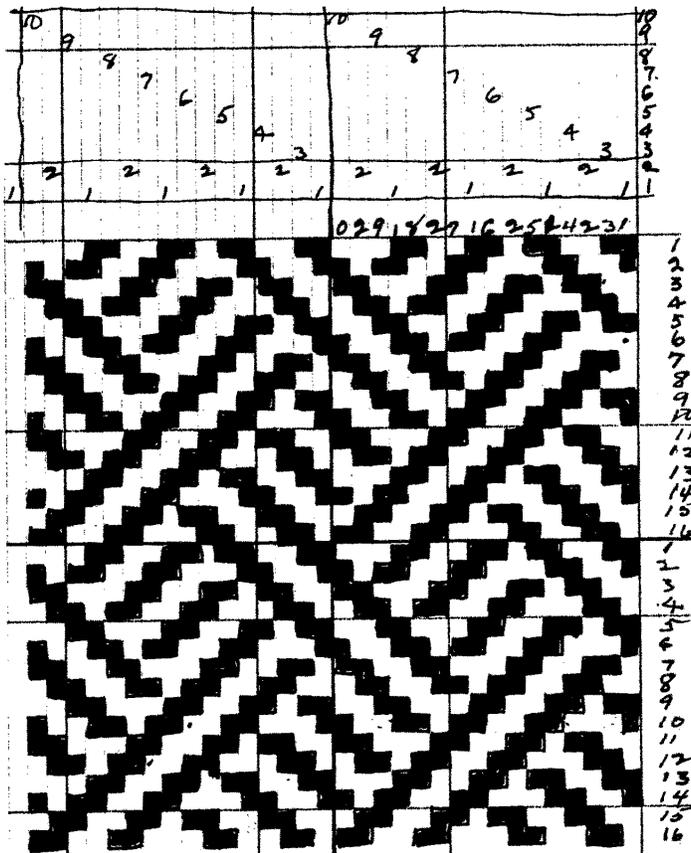
corner of the diagram (power-loom drafters usually start at the lower left) and compare the pattern of filled squares until an exact repeat is evident. Place a mark where the repeat starts, and then compare further horizontal lines, working downward, to check this point for accuracy. It is a good idea to draw a line down the diagram at this repeat point. Then, starting at the upper right-hand corner again, make comparisons downward to determine the extent of the treadling repeat. Draw a horizontal line across the draft here. One now has a full repeat of the draft and treadling marked off. This may be a square (as it is for all of the braided twill diagrams) or it may be an oblong, if there are more or less shots in the repeat than threads in the draft.

The next step is the determination of the draft. This is done by assumption, if no draft is given. The assumption is that each thread of the draft is carried on a separate harness—which means that one assumes a twill draft on as many harnesses as there are threads in the full draft repeat. Above the diagram, number the squares starting with “1” at the right. This is not the case with the braided twill drafts, which start with a twill in most cases, followed by a group of ends threaded to a different harness arrangement. (Since most books give the draft if it is other than twill, the method for determining the exact draft need not be taken up here. But the weaver who is interested in this phase will find it in the July 1956 Shuttle Craft BULLETIN, included in the “Analysis” Monograph Series, \$2.50.)

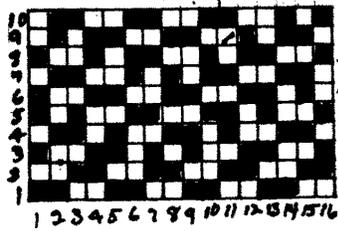
The next step is determining the treadling directions, and for this one simply assumes one shot for each horizontal row of the single-repeat diagram. Therefore, at the right-hand side of the diagram, starting at the top, number the squares 1, 2, 3, 4, etc.

The third element, the tie-up is the diagram itself, but the ties are read crossways instead of up or down. To read the tie-up, start with the top horizontal line (shot 1) and set down the number which lies above each dark square of the first line, connecting the numbers with dashes. Then read and set down the number above each dark square on the second line (shot 2) of the diagram. Continue thus until the numbers for filled squares for each line of the diagram have been noted. These constitute the tie-ups for each treadle, and may then be written in graphic tie-up form.

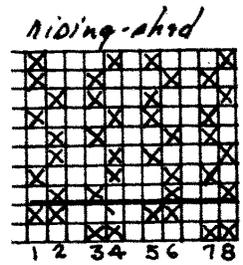
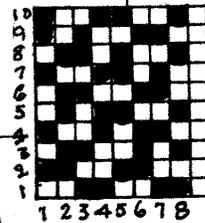
For an example of this method I am giving here my own worksheet for a 10-harness braided twill. This design was taken from Hauptman, *GEWEBE TECHNIK*, and since the threading was not a straight twill, the draft was given with the diagram. The draft was informally copied first, substituting harness numbers for the graphic squares so as to make the drawing of the diagram easier. The diagram was copied below the draft. The extent of the draft on the diagram was determined (two repeats in both threading and treadling were given) and the two lines drawn which in this case divide the diagram into four identical squares. The analysis could have been started at any one of the corners of any one of the squares, but it is simplest if one starts at the upper right-hand corner. The shed numbers, one to sixteen, were written down



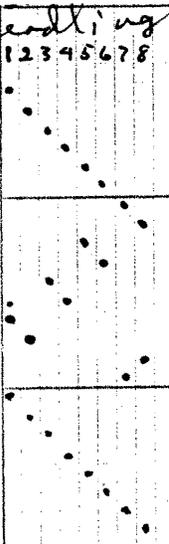
- 1-4-7-9-10
- 2-4-5-7-10
- 2-3-6-8-9
- 1-3-4-6-9
- 1-5-7-8-10
- 2-3-5-8-10
- 2-4-6-7-9
- 1-3-4-6-9
- 1-5-7-8-10
- 2-4-5-7-10
- 2-3-6-8-9
- 1-3-5-6-8
- 1-4-7-9-10
- 2-4-6-7-9
- 2-3-5-8-10



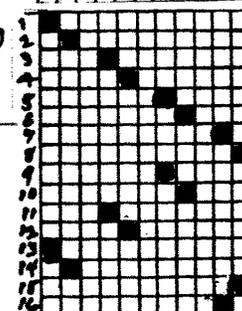
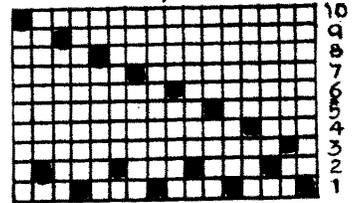
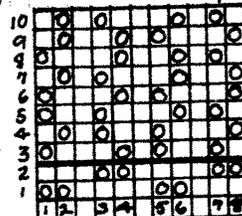
- converted tie-up*
- ① 2-4-7-9-10
 - ② 2-3-5-6-8
 - ③ 1-3-6-8-9
 - ④ 1-4-5-7-10
 - ⑤ 2-5-7-8-10
 - ⑥ 2-3-4-6-9
 - ⑦ 1-4-6-7-9
 - ⑧ 1-3-5-8-10
 - ⑨ 2-5-7-8-10
 - ⑩ 2-3-4-6-9
 - ⑪ 1-3-6-8-9
 - ⑫ 1-4-5-7-10
 - ⑬ 2-4-7-9-10
 - ⑭ 2-3-5-6-8
 - ⑮ 1-3-5-8-10
 - ⑯ 1-4-6-7-9



heading
1 2 3 4 5 6 7 8



final tie-up draft



treading

the right-hand side of the diagram. The harness numbers for each shed were then determined, and will be seen at the right of the diagram. These series of numbers are then changed to a tie-up draft which is drawn out here using black squares. (In American handweaving usage the sinking-shed tie-up, which diagramming the black squares gives, is represented by "x" for each harness number. The filled square is given here because it gives a more graphic representation of the tie-up, and also because this is the system used in most of the Scandinavian and Finnish books, so the handweaver needs to be familiar with this tie-up form.) The next problem taken up here is that of converting the sinking-shed tie-up to a rising-shed tie-up. This conversion is made by listing the omitted numbers for each shed, and this list of harness groups is seen below the diagram. (This conversion may be done as the last step, if one wishes.) Then an analysis-by-comparisons was made of the sheds. The third shed was compared with the first; the fourth with the first and second; the fifth with the first, second and third; the sixth with the first, second, third and fourth; and so on. Each shed which was exactly the same as a previous shed was given the same number as the previous shed. It was found that the first eight sheds were all different so they retained their original numbers. Then the ninth shed was found to be identical to the fifth, so the number "5" was placed at the right; the tenth was the same as the sixth, so it was so numbered. The circled figures at the right show that the last eight sheds repeat the first eight, but in a different order. Therefore the complete tie-up is included in the first eight sheds so this tie-up is drafted for both sinking and rising shed, with separations made between pairs of treadles for graphic clarity. The sinking shed tie-up is given because diagrams are usually made from it, but the rising-shed tie-up is the one to which the loom is tied, since multiple-harness looms have rising sheds.

Finally, the treadling order as shown by the shed numbers (1, 2, 3, 4, 5, 6, 7, 8; 5, 6, 3, 4, 1, 2, 8, 7 repeat) is diagrammed under the tie-up, in the manner used in the Swedish handweaving books.

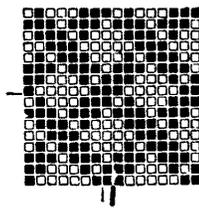


Figure 1

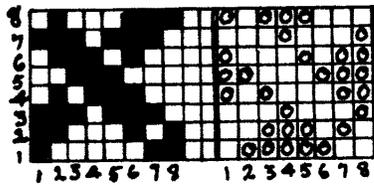


Figure I—

A HANDBOOK OF WEAVES, by G H Oelsner, Fig. 586, page 122, a Fancy Twill on eight harnesses, requiring eight treadles. Oelsner usually gives more than a single draft repeat, but marks off the extent of the draft with a small line at the bottom of the diagram, and the extent of the shedding with a small line at the left side. Thus, the lower left-hand corner is intended for the analysis. In this particular diagram there was an error in the draft indication, suggesting a 7-thread draft when it is obviously eight threads. (Though errors are rare in the technical books, one must be ready to correct them if they do occur.) Since the draft is plainly an 8-harness twill and the shedding or treadling order is plainly 1, 2, 3, 4, 5, 6, 7, 8, we set down only the eight-thread square from the lower-left corner. The rising-shed tie-up is made from this by placing circles in each of the white squares of the diagram.

Figure 2—

Oelsner, Fig. 394, page 84, a Broken Twill for ten harnesses, requiring ten treadles. Since this is not a plain twill threading, the draft is given below the diagram. Read the draft from left to right, top to bottom, and redraft in the conventional manner: 1, 2, 3, 4, 5, 1, 2, 3; 6, 7, 8, 9, 10, 6, 7, 8. The line at the left of the diagram shows the extent of the shedding repeat: ten sheds. The tie-up is read from above the first five threads and the 9th, 10th, 11th, 12th, and 13th threads of the draft.

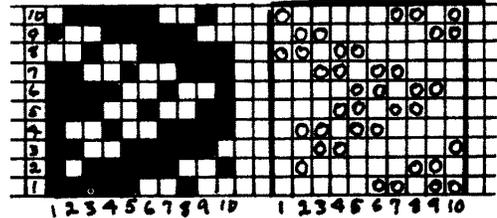


Figure 2

Figure 3—

Oelsner, Fig. 59, page 18, an Uneven Twill on seven harnesses, requiring seven treadles. A single repeat of the draft and shedding is given in black face, while the balance of the diagram is shaded. The formula at the right is a type of tie-up indication which may be used when each shed has the same up-and-down thread relationships, sheds always progressing forward by one thread by simply taking the last one and putting it at the beginning. This becomes:

Shed 1—2 ends up, 1 down, 1 up, 1 down, 1 up, 1 down.

Shed 2—1 down, 2 up, 1 down, 1 up, 1 down, 1 up.

Shed 3—1 up, 1 down, 2 up, 1 down, 1 up, 1 down.

This is an easier way to derive the tie-up: by placing dark squares on the "up" threads for each shed, or the rising-shed "o" symbol for each of the "down threads.

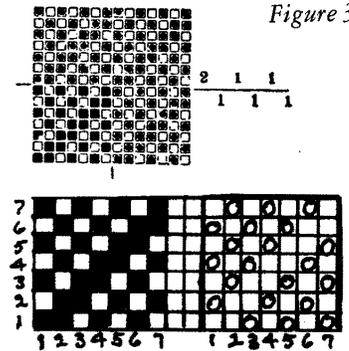


Figure 3

Figure 4—

2500 *ARMATURE-INTRECCIO*, by Eugenio Poma, number 12031/1. In this book only twill drafts are given, starting with 8-harness twills and extending as high as 40-harness twills. The diagrams show only a single repeat of the draft and the shedding sequence. The number of harnesses required is further indicated by the first two figures of the draft number, as in this 12-harness draft which has a number starting with 12. All square diagrams require as many treadles as harnesses, but the oblong diagrams require more, and often so many more that the use of the pattern is impractical. In some cases, however, the clever weaver will find tie-up duplications which will give a shortened tie-up, as was done in the case of the braided twills.

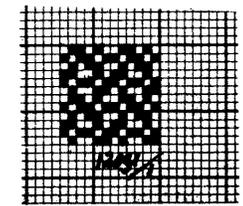
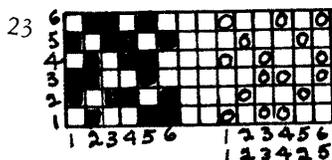
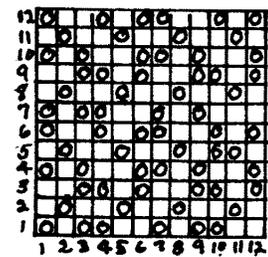


Figure 4



Close examination reveals this to be a 6-harness twill, requiring five treadles as 2 and 5 are identical.



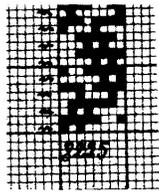


Figure 5

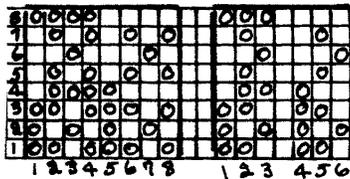
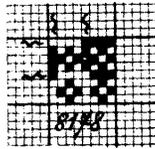


Figure 5—

Poma, number 8225, a very beautiful 8-harness twill on sixteen treadles. The little signals at the left of the diagram indicate that a second weft color may be used on alternate sheds. Number 8148, an 8-harness twill requiring eight treadles suggests an additional color for each fourth thread in both warp and weft.

Figure 6

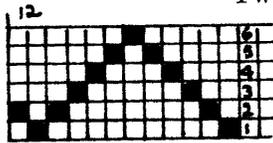
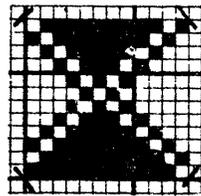
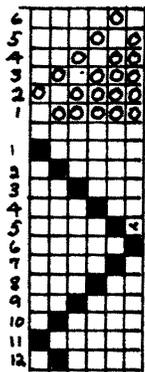


Figure 6—

FABRIC STRUCTURE, John H Strong, Fig. 143, page 91, shows a 6-harness Waffle Weave draft. The extent of this draft suggests a 12-harness draft on twelve treadles, at first sight, and it might be so drafted. However, very slight examination reveals that this may be threaded on six harnesses, as a Point Twill, and woven on six treadles.

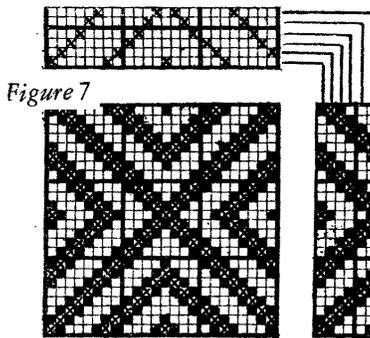


Figure 7

Figure 7—

TEXTILE DESIGN AND COLOUR, by William Watson, Fig. 54, page 55. This is a full draft with the diagram, the 6-harness Herringbone threading and the shed order (requiring six treadles) down the side. Watson introduces many of his groups of related diagrams with full information of this kind, and then omits the details other than the diagram for further ones, but with a little study the weaver can find what he wants. The shaded squares indicate optional ties, so this diagram actually shows two patterns.

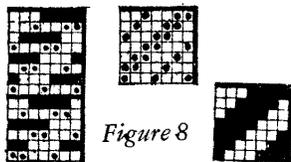
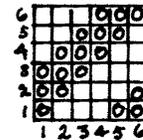


Figure 8

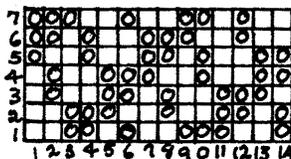


Figure 8—

Watson, Fig. 45, page 46. This 7-harness twill is another one of Watson's explanatory diagrams. It shows how two simple 7-harness twill tie-ups, both requiring seven treadles, are combined by alternating the shots, to give a Combination Twill design requiring fourteen treadles. The dots and filled squares in this diagram are not intended as color symbols, though the use of two alternating colors often gives an interesting effect in the Combination Twills.

The diagrams in Hauptman, beautifully presented in multiple-color, have a more complex interpretation than those in the English books, so they will not be taken up here.

The WEAVER'S BOOK SHELF

by Boris Ueren

THE LACE WITH THE DELICATE AIR

We did make a resolution, although not public, that this column would not include books on upholstery, stained glass, Chippendale furniture, or the tanning of leather—only books on WEAVING. We are going to enlarge that limited horizon to include from time to time, books on the other TEXTILE crafts, and this first paragraph is only to tell you that Craft and Hobby Book Service is the specialist bookseller on Pillow or Bobbin Laces, and we entered this fascinating field only because so many handweavers were also pillow lace makers. Two of the authors who are listed in our catalog "Books For The Weaver" have written and published books on lace making. Elsie Gubser, a well known weaver and travelling teacher and writer on weaving, published a fine book *BOBBIN LACE* which we sell for \$5.00. Mrs Gubser calls lace making "The Art of Queens" and I had thought it must be because only one of regal family could purchase hand made bobbin lace, even today. But one has only to have \$5.00 for this book, plus a few dollars for a pillow, pins, bobbins, etc, to make this exquisitely beautiful lace. Elsie Gubser, who many of you know as a clear writer on weaving, shows in these pages exactly how to make this lace, and her book is lavishly illustrated with diagrams and photographs and patterns.

Then, Marguerite G Brooks who wrote *THREAD TECHNIQUES Series II* on the lace techniques in weaving, has written also *LACE-BOBBIN TECHNIQUES*, which is a beginner's course in bobbin lace work, teaching the fundamental 'whole stitch' and the construction of equipment. Her course consists of a packet of eleven folded instruction cards, supplemented with printed patterns and pictures, \$4.00.

My friend the publisher, Mr L Jacobs of Charles Branford, who made possible the publication of the English translation of Ulla Cyrus *MANUAL OF SWEDISH WEAVING*, and a facsimile reprint of the famous Bronson weaving book, reprinted a few years ago the classic, *A MANUAL OF HAND MADE BOBBIN LACE WORK*, by Margaret Maidment, \$6.95. There are 172 plates in this book, demonstrating every detail in the making of lace with bobbins. A special feature is the forty examples with red threads worked into the lace figures, enabling a reader to follow each step.

Then, if you are bitten with the bug, watch out, for I can furnish on request a list of other publications from the four corners of the lace-making world. I have been told that pillow lace edgings applied on handwoven linens are truly exquisite.

And now to a publication on *LACE WEAVES*, a Finnish book known to some of you, but which deserves wider recognition. My Carmel neighbor,

Helen Beecher (author of *Tabby and Twill*) visited Finland about two years ago and on her return invited me for tea and an exhibition of some beautiful Finnish handwoven towels in various open-work techniques which she found displayed in the markets of Finland. She also brought back with her a book on the subject by Matilda Wahe, called *PITSIA KANGASPUISSA*, translated as *LACE ON THE LOOM* (\$3.50), and at the 1955 Conference of the Northern California Handweavers, held at San Jose, California, Mrs Beecher demonstrated the weaving of this kind of lace. Interested weavers made a worn path between her demonstration and my book booth opposite, to see and purchase this book. The book has 296 illustrations with 130 photographs of open-work lace techniques—i.e. the photograph of the woven textiles, and with it the working diagram. Now, if you cannot see this weaving demonstrated, may I suggest you write to Mary Sandin, co-editor of that excellent weaving periodical *LOOM MUSIC*, at the University of Alberta, Edmonton, Alberta Canada, to see if you can purchase (or better still, subscribe) the June 1956 issue of *LOOM MUSIC*. In this issue she told her readers about this *PITSIA KANGASPUISSA*, and gave an analysis of the details of the technique. Mrs Sandin writes by way of introduction: "*Pitsia Kangaspuissa* presents a splendid set of cartoons showing various designs, so plainly illustrated that once the initial method is mastered no further directions are necessary—just the incentive to plan and weave." In Mrs Sandin's analysis she uses as example some lengths of lace weavings done by Mrs Anne Bailey which were worked out from this Finnish book (purchased through us, says Mrs Bailey). And she has made good use of Mrs Bailey's experiences and presents cautions and hints. (And may we remind you now that if you want further aid, it may be found in some of the other Finnish weaving books, and that we still have some copies left of the *Finnish-English Weaving Glossary* by Aina Ringler at 75c.)

While writing on open-work weaves, I should warn you that excellent *SEVEN PROJECTS IN ROSEPATH* by Berta Frey (which includes the Brooks Bouquet and Danish open-work techniques) is now or will be out of print. Berta Frey wrote me that they were about gone. I have some copies on hand. The price is still a reasonable \$1.50, and if you will kindly add 10c for postage, I will not go into the red.

To conclude, inappropriately enough, here is the solution to that weaving puzzle of last month. The contents of all the three boxes of yarns can be ascertained by drawing out just one skein of yarn. The "key" is that you were told that all three boxes of yarn were labeled incorrectly. Therefore, when drawing a skein of yarn from the box labeled YELLOW-BLUE, you will know that the skein remaining in the box is of the same color. Let's assume that the skein taken out is YELLOW. Having identified the box containing two yellows, turn to the box labeled BLUE-BLUE. This cannot have two blues because it is so labeled; it cannot have two yellows because the yellows have already been identified; therefore it must contain one blue and one yellow. The remaining box will, of course, contain the two skeins of blue yarn. You can solve the puzzle by the same reasoning if the skein you take from the YELLOW-BLUE box happens to be blue instead of yellow. Never again, I promise you!

The LOOM-SIDE MARKET

Recommended Sources

All of the items and sources included in these advertising pages have been tested by the Shuttle Craft Guild and found completely satisfactory. To help the prospective purchaser better evaluate any single item with relation to his own needs, most of the advertising notes have been written by the Shuttle Craft Guild rather than by the manufacturer or dealer. Questions about anything listed are invited, if further help is needed in making appropriate selections, and should be directed to the Shuttle Craft Guild Editorial Office.

BOBBIN and SPOOL WINDING and YARN MEASURING EQUIPMENT, which will "last a lifetime."

Manufacturer and sole distributor of the WE-GO WINDER and the WE-GO YARDAGE COUNTER which the Shuttle Craft Guild has found to be the most satisfactory equipment for these purposes. Also instruction, accessories and general supplies.

HAND WEAVERS WORK BASKET, Grace D Blum, Box 691, RR I, West Chicago, Ill.



THE FULL RANGE IN LOOMS: TREADLE, JACK-TYPE, COUNTER-BALANCED, TABLE MODELS, FLY SHUTTLE Two-Harness, Four-Harness, Multiple-Harness

The famous quality of the Leclerc Counter-Balanced Loom is found in all of the Leclerc models. The new jack-type loom with four, eight or twelve treadles is of particular interest. Leclerc has a loom for any handweaving need, including tapestry looms and small looms for schools. All looms are of beautifully finished maple, top quality construction, good design. Accessory equipment for warping, including the two-yard diameter horizontal warping reel, winding equipment and loom benches, are of harmonizing design, in the same wood.

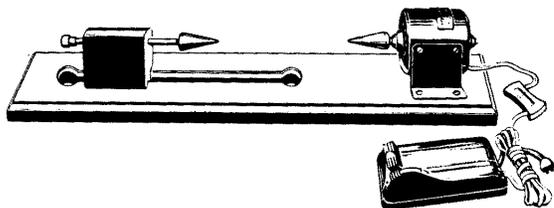
NILUS LECLERC INC
L'Isletville, Quebec
Canada



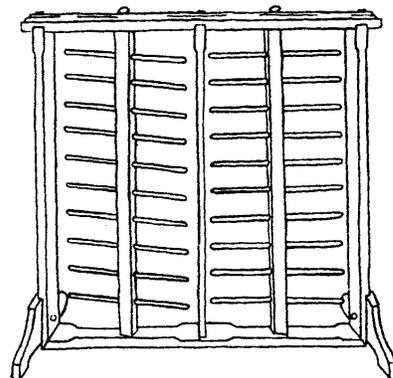
Orders for Leclerc looms and equipment may be placed directly or through one of the many local agents for Leclerc, at the same price.

GRANT "ALL PURPOSE" ELECTRIC WINDER

A winder suitable for bobbins and paper quills as well as for spools of all sizes and tubes. Special attachments for winding quills and cones. Insertion of spools or bobbins is fast and easy and no tools required. The rheostat motor has a sensitive foot control. Price with 1/15 hp motor, \$22.50. Also available with heavy-duty motor for weavers who wind many bobbins and spools.



3186 West Pico Boulevard, Los Angeles 19, Calif
(Write for complete catalogue.)



GRANT SWIVEL SPOOL RACK

This handsome, stable, hardwood rack holds 80 3" spools or 40 6" spools. The spool rod posts swivel to a position for easy loading, and may be locked at slight angles to prevent thread pulling off the ends of yarn tubes. The price with plated metal rods for holding 2-ounce tubes as well as spools, is \$16.95. With wooden rods for holding spools, \$14.95. Set of 80 3" cardboard spools, \$14.95. Set of 40 6" cardboard spools, \$3.85.

INSTRUCTION in SOUTHERN CALIFORNIA at the **MARY E SNYDER STUDIO**
256 East Orange Grove Ave., PASADENA, CALIF.
Year-Around Classes, Beginning and Advanced. Enter at any time. Looms available for special projects. Special lessons.
Summer Classes: (1) Tribute to Mary M. Atwater (Mrs Atwater was to have taught this and supplied the projects). (2) Pick-up and Laid-In Weaves. (3) Eight-Harness Techniques. (4) Textures. **WRITE FOR INFORMATION AND DATES.**
AGENT FOR: Bernat Fabri and Afghan, looms, accessories, books and supplies.

MARY E SNYDER
STUDIO
INSTRUCTION

Handweaver & Craftsman



The basic magazine for the entire handweaving field; amateurs and professionals, textile designers, teachers, occupational therapists. Lavishly illustrated, it shows prize-winning exhibit textiles, and has articles of wide and varied interest, exhibit announcements, descriptions of summer weaving courses, local Guild news. The full advertising medium, so it is the source for all commercial addresses.

Quarterly, Single copy \$1.00.
1 year \$4.00, 2 years \$7.50, 3 years \$10.00, 5 years \$15.00.
Extra postage: Canadian 50c, Foreign \$1.00, a year.
Write for special group-subscription rates.

HANDWEAVER AND CRAFTSMAN, Mary Alice Smith, Editor
246 Fifth Avenue, New York 1, N. Y.

MEXICO ARTS & CRAFTS TOURS conducted by T H Hewitt

13-Day, All-Inclusive Tours . . . Craft Demonstrations in Remote Indian Villages . . .

Your Tour-Companions are Fellow Craftsmen.

June 9: to Oaxaca, Mexico City, Taxco—co-host BERTA FREY.

July 28: to Guadalajara, Patzcuaro, Mexico City—co-host VALBORG GRAVANDER.

June 30: Painting Workshop in Mexico with DONG KINGMAN.

Former tour members all vote: One of the most delightful vacations experienced.

TURISMO DE LAS ARTES POPULARES, 2413 Driscoll St, Houston 19 Texas.

A HANDWEAVER'S WORKBOOK, by Heather G. Thorpe. Beginners can now learn the skills for weaving on the 4-harness-treadle or hand loom from the teacher, Heather Thorpe. This comprehensive guide has illustrations, diagrams, glossary and handsome weaves. \$4.50

THE SHUTTLE CRAFT BOOK OF AMERICAN HANDWEAVING, by Mary Meigs Atwater. This definite book on handweaving, revised in 1951, includes the important loom techniques: Overshot, Summer and Winter, Crackle, Bronson, Double, Leno, Rug Weaves, Pickups. \$7.50.

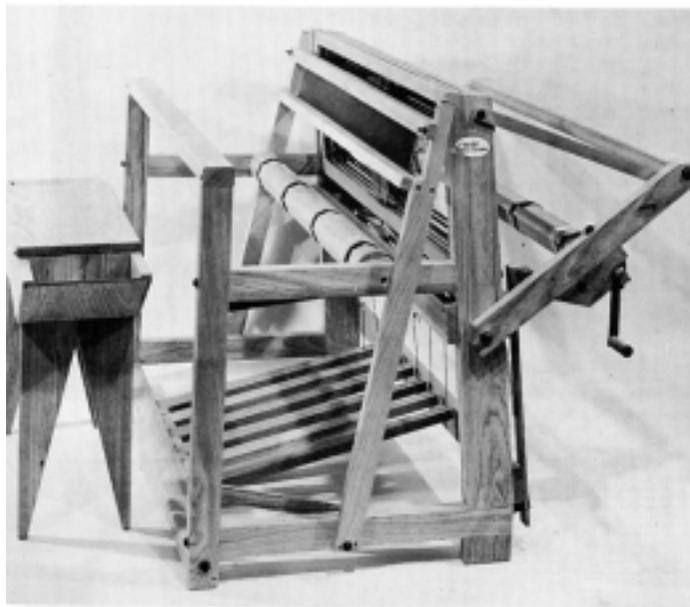
BYWAYS IN HANDWEAVING, by Mary Meigs Atwater. The unusual handweaving techniques from all over the world: Card Weaving, Inkle Weaving, Twinning, Braiding, Knotting and Plaiting and many primitive weaves. 8 full color plates, many drawings. \$8.50.

The Macmillan Company
60 FIFTH AVENUE, NEW YORK 11, N.Y.

Known by those who own one as "the best of its kind," the HERALD LOOM is a perfect answer for the weaver who demands loom efficiency and also a handsome piece of furniture which will fit harmoniously into a contemporary livingroom. The loom is all hardwood, beautifully finished in neutral tone. It is rigid but compact, with folding warp beam arms. Wire tie-ups are easy to attach. Treadle action is light. Either plain or sectional warp beam. Available in four widths: 24", 32", 40", 45", with 4, 6, or 8 harnesses. Matching loom bench and accessories. For illustrated brochure with full descriptions, write to:

HERALD LOOM
Mr Herald Micander
2080 Edgewood Road
Redwood City, Calif

THE HERALD LOOM



For thirty-five years handweavers have found **Bernat Handweaving Yarns** the best in their types. Two sizes of soft, lustrous, high-quality English-spun Worsted are now available. The famous FABRI and AFGHAN, in 44 glowing colors. FABRI is 2/18 worsted with 4800 yards per pound, known as the most versatile handweaving worsted there is. AFGHAN is the same yarn in 2/28 with 7600 yards per pound.

Bernat yarns are available
only through agents.

Bernat Yarns



See the CLASSIFIED DIRECTORY and RECOMMENDED SOURCES
for your favorite source.



THE GILMORE FOLDING LOOM

Exceptionally strong. Beautiful craftsmanship. For all types of handweaving including rugs.

Standard Features:

All hard maple and ash, natural finish. Jack type, push-up harnesses, 38" height. Depth 43". Folded depth under 30". Overall width, 12" more than weaving width. Stainless steel reed, 20 heddles per inch. Two throw shuttles, sley hook, transfer rods.

Custom Features:

Plain or sectional warp beam. Four, six or eight harnesses. 10, 12 or 15 dent reed. Regular or large-eyed heddles. Extra heddles. Matching loom bench with shuttle drawer.

Widths and Prices:

26" 4-harness	\$135.00
32" 4-harness	150.00
36" 4-harness	165.00
40" 4-harness	175.00
46" 4-harness	185.00

E E GILMORE

1032 North Broadway
Stockton, California

BERNAT WEAVING YARN

FABRI AND AFGHAN



Immediate delivery on your orders for Bernat Fabri and Afghan. Full stock of all colors. Sample card sent on request.

HARRIET MAY HAGERTY, 64 Washington Street, Gloversville, New York

INSTRUCTION in BASIC HANDICRAFTS: Hand Weaving, Metalcrafts, Pottery, Enameling on Copper and Silver.

INSTRUCTION in NATIVE CRAFTS: Carding, Spinning, Vegetable Dyeing, Corn Shuck Chair Seating, Doll Making, and others.

INSTRUCTION in HOBBY CRAFTS: Non-Fired-Pottery Lamps, Lamp Shades, many others.



Continuous instruction from March 18 to June 22, 1957 affords the opportunity for coming during this period for long or short terms of personalized training in small groups.

Summer Sessions: June 24 to July 13; July 15 to August 3; August 5 to 24, 1957. Excellent equipment and teaching personnel. Modern living conditions in a beautiful mountain country-side. Write the Registrar for full information.

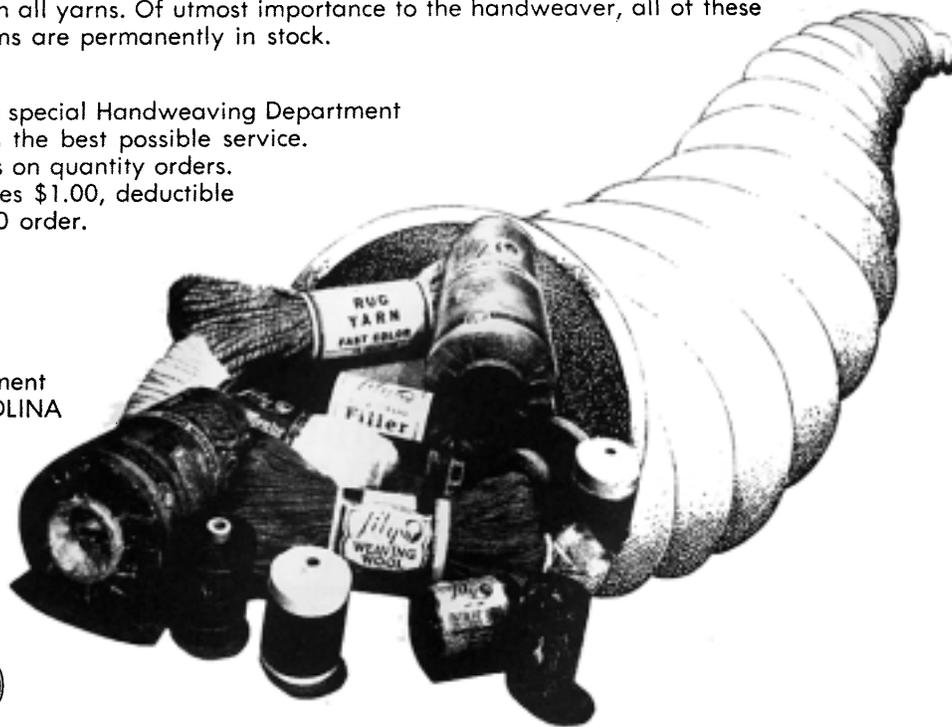
Penland

School of Handicrafts
Penland, North Carolina

LILY MILLS is truly the handweaver's "Horn of Plenty" when it comes to yarns. The standard source for cottons because of the many sizes and the wide range of color in each size: mercerized perle in 5 sizes, 70 colors each; 2, 3 and 4-ply warps in many sizes and colors, carpet warp, fine rug roving, 3 sizes of chenille, 8/2 drapery cotton (a new item), fine and heavy novelties, the ever-useful 10/3 mercerized Soft-Twist, and numerous others. In addition, a splendid 2/16 French-spun worsted in 40 colors, sports yarn and knitting worsted, and a homespun-type woolen tweed yarn in 3 sizes (another new item); linens in 20/2, 40/2, 10/1, 14/1, 20/1, in 20 colors; gold, silver and copper metallics; and other yarns. Color fast guarantee in all yarns. Of utmost importance to the handweaver, all of these hundreds of items are permanently in stock.

LILY MILLS has a special Handweaving Department to give weavers the best possible service. Liberal discounts on quantity orders. Complete samples \$1.00, deductible from first \$10.00 order.

LILY MILLS COMPANY
Handweaving Department
SHELBY, NORTH CAROLINA

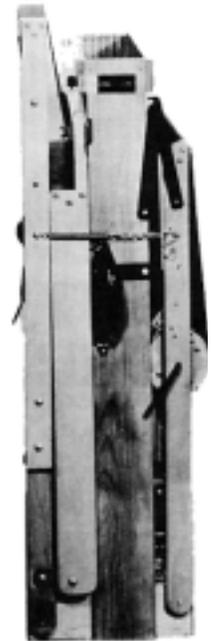
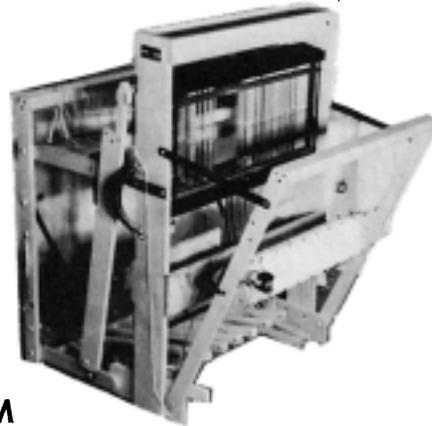


Do you need to carry a loom to and from weaving classes? Or do you want a loom you can take vacationing, or move easily to porch or patio in the summer, or store in a closet when you are not weaving? Then the Macomber portable loom is for you. It's a small loom (breast and back beams 27" high) which operates like a full-size one. Jack type, push-up harnesses, 16" 4-harness, 20" 6-harness, 24" 8-harness, maximum. Folds to 10"x37½"x5" more than the width, and has carrying handle. It's worth investigating.

	Price	Weight
16"-4 harness	\$ 99.50	34 lbs.
20"-4 harness	\$108.50	38 lbs.
20"-6 harness	\$119.50	43 lbs.

AD-A-HARNESS units for the 20"—\$6.00 each.
Extra reeds 20"—\$4.00 . . . 16"—\$3.50 each.
8" flat heddles \$12.00 per thousand.

L. W. MACOMBER
 166 Essex St
 Saugus, Mass



THE STANDARD MACOMBER LOOM

This famous loom has long been the classic among multiple-harness weavers. The add-a-harness feature makes it possible to convert a 4-harness into a multiple-harness model. Widths of 32", 40", 48", 56", have standard frames to hold 10 harnesses, but custom frames for 12 or 16 are available. One or two warp beams, sectional or plain, brake or ratchet controls, double back beam, warp yardage counter, extra treadles, are optional features which make this a true custom loom.

SUMMER COURSES: BANFF SCHOOL OF FINE ARTS

Instruction in Handweaving from July 3 to August 7, 1957.
 Ethel Henderson and Mary Sandin, Instructors.
 For Calendar write: Director, Banff School of Fine Arts
 Banff, Alberta, Canada

25th Anniversary Session
 University of Alberta
 BANFF SCHOOL OF FINE ARTS

YARNS

The weaver interested in purchasing **yarns from job-lots** will find Frank Kouble an excellent source. Mr Kouble purchase many types of yarns from mills with over-stocked inventories, bankrupted mills, liquidated mills. As these are bought below cost, great savings are passed on to the handweaver. In these constantly-changing stocks are unusual yarns, unavailable elsewhere. Write for samples stating special yarn interests, to: FRANK KOUBLE CO, PO Box 82, VALLEY FALLS-LONSDALE, RHODE ISLAND.

WRITE TO CODDIE, THE SHUTTLE MAKER

You will be interested in the unusual novelties for handweavers. WEAVER SILHOUETTES FOR HOUSE, AUTO, MAIL BOX. RUBBER STAMPS FOR PERSONALIZED STATIONERY, TEXTILES, TAPES. These items are high quality, well designed, unique.

SHUTTLES OF ALL KINDS—27 varieties

Throw, Belt, Flat, Rug, Twido, Chanel-Stick (original design), and Pick-up Sticks and Shed or Sword Sticks. The shuttle you want must surely be here. Send for illustrated descriptive leaflet from:



CODDIE PRODUCTS
 1764 29th Avenue, North
 St Petersburg 4, Florida



THE HOME OF A HANDWEAVER



From WEAVER to WEAVER

My dear handweaver:

Summer vacation - an interlude with no for maturing plans for the next two issues of Shuttle Craft. Your enthusiastic response since January indicate that the "grown up" Bulletin is the kind of publication you want, so we go ahead happily feeling that we are filling a gap in the handweaving field. The next issue will be mailed in September, the first week. The summer interlude gives us a chance to get back "on schedule." The Portfolio Annual, now in preparation is devoted to the subject: "Analysis and Classification of Handloom Weave." This will probably be mailed with the October issue, and non-Portfolio subscribers may purchase it separately at that time.

There is a new Hickman Folio, one of special interest deserving serious attention. 'Natural Yarn Fabrics' by Elmer Hickman, R.D., Emlenton, Pa. (\$6.50 postpaid) has 20 contemporary decorating textiles. Variations on a single warp is the theme, with only three warps for the 20 designs which are astonishing in their scope and beauty. It is hard to believe that Autumn Haze, Pompon, Illusion, Wheat Harvest, Haystack, Blackbank, Mosaic, Sea Spray, Crystals and Candytuft, all stem from the same warp, and can decorate the entire home: drapery, cloiments, upholstery, screen panels, even placemats. Mr. Hickman's work needs no recommendation to countless "old" weavers, but I hope many new weavers will look into this folio. Designing decorating fabrics requires years of experience, but even a new weaver can do successful work with Mr. Hickman's help.

Mr. Gilmore, the loom manufacturer, is meeting the demands of his expanding business in a new loom factory. The new address for Gilmore Looms is: 1032 Broadway, Stockton, Calif. And he has a new brochure including information on his new models which you may want.

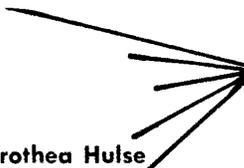
If you wish to vacation with a loom, the Incombre Travel Loom will interest you. See page 32. With or without a loom, have a fine summer. Will be with you again in September. Sincerely yours,

Harris Tidball

INSTRUCTION BY DOROTHEA HULSE

Daytime and evening classes in handweaving. Special instruction by the day or by the hour in designing and in handweaving, on arrangement. Visitors and vacationers to the Los Angeles area are welcome as special students.

Weavers Guilds which want an unusually strong program or Workshop will wish to know more about Mrs Hulse's annual lecture and workshop tour.



Dorothea Hulse
517½ N Robertson Blvd
Los Angeles 48, Calif.

Directory of Handweaving Services

This section is planned to answer the constant flow of inquiries to the Shuttle Craft Guild from new weavers who wish to locate a near-by instructor or to know of local sources of supply, from Guilds who wish to secure speakers or a capable person to direct a workshop, from weavers who are traveling or are moving and wish to establish weaving contacts in new localities. We hope that this section will grow until it is a truly comprehensive DIRECTORY for all the small commercial and instruction services in the United States and Canada, and a clearing bureau for exhibits and for lecturers and workshop leaders. Classified

YARNS

Marie Phelps, Strawberry Hill Studio, Sherman's Point Road, Camden, Main. 20/2 linen, snow white, \$3.65 a pound; 4 beautiful colors at \$4.75 a pound. Custom dyeing of 20/2 linen, minimum quality 30 pounds, to a color. Prices post-paid.

The Craft Shop, 448 So Coast Blvd, Laguna Beach, Calif. Imported Norwegian and Swedish Homespun, 18 colors. Swedish linen bleached and natural 12, 16, 20. Knox Mercerized linen 30/2 in 35 colors. Bernat Fabri in 32 colors. Also accessories.

Maypole Handcraft Yarns, 8300 S E McLoughlin Blvd, Portland, Oregon. Thirty-six colors, 100% English-spun worsted yarns in two sizes on 2-ounce tubes: Willamette 700 yards per tube, and Clackamas 1050 yards. Samples, 10c.

GENERAL SERVICES

Countryside Handweavers, 5605 West 61st St, Mission, Kansas. SILICONING of Yardages a specialty. Also yarns, Looms, Accessories, Books. Mail orders accepted.

The Garrisons, 5 Cherry Tree Lane, Middletown, New Jersey. Instruction to beginners. Agent for the HERALD LOOM and accessories, and Maypole yarn. Custom weaving. Visitors welcomed. Mail orders accepted.

Earl C. Bradfish, 220 Bradford Way, Medford, Oregon — Agent for **Macomber Looms** and all Macomber equipment.

EXHIBITS

Tacoma Weavers Guild Traveling Exhibit. Ready for September 1957. Groups desiring information write to Mrs C D Schwartze, Exhibit Chairman, 2302 Tacoma Road, Puyallup, Washington.

INSTRUCTION

Kate Van Cleve, The Garden Studio, 14 Marshal Street, Brookline 46, Mass. Master Craftsman and Medalist, Society of Arts & Crafts, Boston. Certificate Courses in Weaving.

PUBLICATIONS

Mary E Black, Box 14, Bedford, Nova Scotia, Canada. HANDWEAVERS REFERENCE, \$2.25, postpaid. An index of subject-matter in several classifications for the basic handweaving periodicals and books. Makes any weaving library useful.

Alena M Reimers, West Pines Hotel, Joliet, Illinois. WAYS TO WEAVE OVERSHOT. Loose leaf manual in three-ring binder, well illustrated including 16 woven samples, well organized and printed. Good for study groups. Order direct, \$10.00 post-paid.
