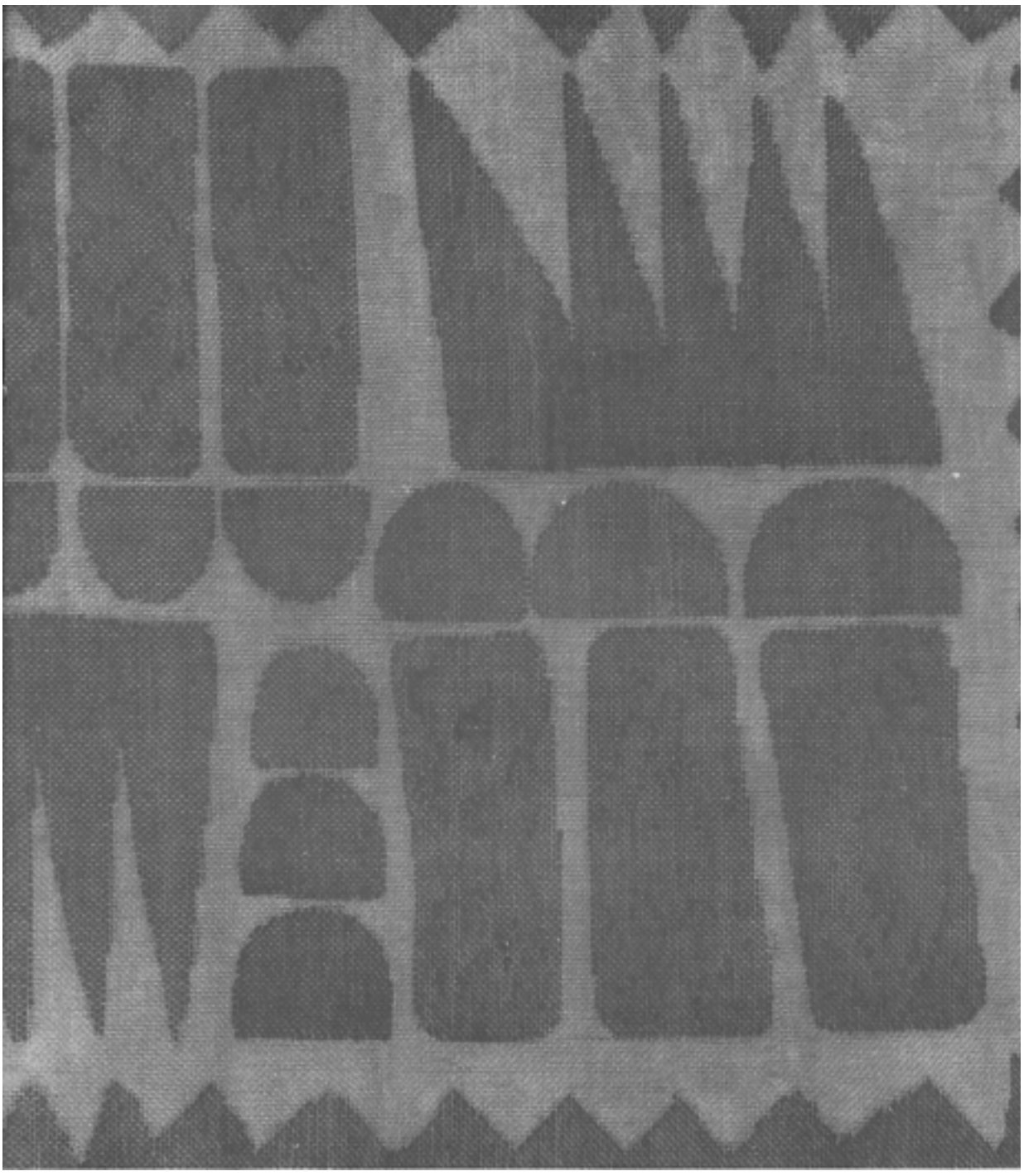

SHUTTLE CRAFT

JUNE - JULY PORTFOLIO 1959

SHUTTLE CRAFT

THE MONTHLY BULLETIN OF THE SHUTTLE CRAFT GUILD

VOLUME XXXVI, Number 6 - 7 Bedford, Nova Scotia June - July, 1959

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Portfolio Samples: Vegetable dyed yarns, color combinations, and Nova Scotia Tartan.

Cover: H. V. technique wall hanging, by Joyce Chown.

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

Associates
Harriet Tidball—1002 Washtenaw Ave., Ypsilanti, Michigan.
Boris Veren—Book reviews—Coast Route, Monterey, California.
Evelyn Longard—7 Seldon Street, Halifax, Nova Scotia.

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(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.)

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From Weaver To Weaver

Dear Guild Members,

Earlier this year, at one of the regular monthly meetings of the Halifax Weavers ' Guild, we were very fortunate in having Mrs. Douglas Murray speak to us on "Color" as it affects us and our weaving. We were delighted with Mrs. Murray's ideas and approach to color--and her permission to let us use her notes, which are presented on page 2, of this issue of SHUTTLE CRAFT.

In and out of Nova Scotia, Mrs. Murray is known as the designer of the Nova Scotia Tartan* and co-owner-operator of the Nova Scotia Tartan Ltd. Shops. So when you read her suggestions for weaving for sale, you will understand that these suggestions are founded on experience with the buying public. But primarily, Mrs. Murray spoke to us as a disigner-craftsman with a particular interest in embroidery and handweaving, and an excellent sense of color and design.

With color in mind, we have included woven color schemes with this and last month's portfolio copies of SHUTTLE CRAFT. We have not attempted to present different weaves, techniques, patterns or textures, but simply color schemes which we trust will prove useful in planning color combinations for your weaving--and which, by the way, are in "fashion" this year.

This issue concludes the series of articles on the Gobelin tapestry technique. In forthcoming issues of SHUTTLE CRAFT we shall discuss some of the many other so-called tapestry techniques including rolakan, aklae, flamskvav,the very versatile Swedish H. V. technique and some of the freer techniques being used today for decorative textiles such as wall hangings and room dividers.

In the meantime we hope you are enjoying the warm summer weather wherever you are. And whether you're weaving or not this summer, this is the time to keep your eyes open for plant materials to weave with next winter--or to dye with this summer.

Sincerely,

Joyce Chaves

NOTES ON COLOR

by Bessie R. Murray

I have talked to you before about mixing colors and what happens when you add blue to red, blue to yellow and so on, so I will leave that for now and try to tell you a little about the effect of color on you and everyone else.

Do you know that each of us have our own set of colors that we can be happy with? Have you ever entered a room and felt vaguely uncomfortable, ill at ease? Well, it could have been the effect of the combination of colors; again, you may have thought, "What a lovely room!" Probably the color pleased you. How do we find these colors? First of all, we must become aware of color,learn to observe it all the time even subconsciously, as you go about your daily work. When your are driving, learn to see the color around you--without taking your attention away from your driving. Note the color of the car ahead, the colors of the clothes the driver is wearing, the color the person who steps off the side walk is wearing. Note how they contrast or blend with the surroundings. Glance at a brick wall and see in an instant the various shades of red and brown; or an unpainted wooden fence and see that it is not really grey, but silver and pink and even purple sometimes. All this will come with practice and you will find that you can appreciate subtle differences in tones much more easily.

Now, start hunting for your own colors. Look at groups of colors in magazine illustrations, in advertisements and all around you, and say to yourself, "I like that," or, "I don't like that," and gradually you will realize that the same colors appear in each of the selections you really like. You may even be surprised to find that this group of colors does not contain what you thought was your favorite color. At one time, I would always say "blue" or "green" when asked my favorite color, but one day while thinking about designs I had made over the years, I realized that the most successful ones had always been in variations of the same color--turquoise, gold, pink and purple. So, my answer of blue or green for a favorite color was not quite correct; it should have been a mixture of both. Sea green or turquoise would have been better. Think about it and find your own colors, then use these colors when you are weaving for yourself.

But remember, when weaving for gifts, you must consider the person you are weaving for, very carefully. Your colors will not do. Think of the colors she or he uses for clothing or furnishings and be guided accordingly.

Weaving for exhibitions and competition is another thing again. Here you must be conscious of fashion in color. Be right up to the minute, even try to predict the future. If the exhibition is to be held in a large city, you will find that the fashion in color will have arrived there six months to two years ahead of the small towns and villages. Also, the judges will be familiar with the latest trends.

This information can be obtained by studying magazines noted for their color predictions such as HOUSE AND GARDEN and HARPER'S BAAZAR. You may feel that some of their color combinations are very unusual, but I assure you that in a very little while, you will find them accepted and available in your local department store or mail order catalogue.

In trying out color combinations for yourself, clip pictures from all kinds of magazines; trade journals are a good source of supply. Machinery and chemical advertisements will give you new ideas. Take all your clippings and arrange them and rearrange them until you have something pleasing and unusual and do not forget the monotones -- shades of one color varying from light to dark.

If you wish to sell you weaving and are weaving without a definite order,white and all its variations of texture appear to be the best. In our shops, we sell white placemats, stoles and scarves before all others. Place mats with an all over pattern using boucle, cotton or silk for the pattern are very popular and so are scarves with borders in white silk or fine boucle. Next come white with pastel borders except with men shoppers, especially the Navy -- their choice everytime is pale blue and silver.

When weaving a plain tabby or twill, do remember that the basic rules for mixing colors in paint also apply to your weaving. For example, if you have a red warp and weave with blue, your finished work will tend to appear purple, especially from a distance. The best way to determine the effect of color on color is to weave yourself a sample. Take all the colors you can find and make a warp,about two inches of each color is enough, and then weave it in the same sequence of color as the warp.First weave it in tabby and then in twill. Then, if possible, use different types of threads

in the same color, for example shiny and dull, and note the effect of reflection or absorbence of light.

Look for color wherever you go, even in the dullest places and even while you are doing the most boring work. You will find it and then you will know that you have really become aware of color. You will be thinking, feeling, seeing and even dreaming of it.

Velcro

After ten years of patient experimentation, Georges de Mestral, an inventor of Nyon, Switzerland, has perfected a new clothing closure which is called "Velcro."

Mr. de Mestral intrigued by the tenacity of burrs which clung to his clothing, conceived the idea of using the principle for a new type of closing. He met many problems along the way but finally conquered them.

The closure consists of two narrow strips of nylon. One has a pile, or velvet-type surface, with thousands of tiny loops;the other has thousands of tiny miniature-like crochet hooks. When the two pieces are pressed together the loops and hooks interlock, thus closing the opening.

The name "Velcro" is made up of "vel" from the velvet and "cro" from the crochet hook-like catch.

Manufacturers state that this new type closing has many advantages over other types of fastenings. It has appeared this spring on garments of all types from rainwear to bathing suits; in industry; to hold head-rest covers in place on busses,planes and trains and its possibilities are being investigated for clothing for the handicapped, medical dressings and for a wide variety of purposes.

Apparently it has many advantages over present types of closings, and one of these is that it can be incorporated into the design of a garment rather than appearing as an accessory. Weavers will appreciate particularly the difficulties encountered in the actual weaving of the two strips.

WARP PATTERN WEAVING

By Evelyn N. Longard

Warp-pattern weaving is the third class of pattern weaving, considering as the first, the fabrics in which the pattern threads are heavier than the warp threads and are used as weft, covering one or more threads of warp to form the pattern, such as overshot, summer and winter, crackle, etc.; and, as the second, the fabrics in which the warp and weft are similar but interlaced one with the other, as in twills, linen weaves, etc. In warp-pattern weaving we are dealing with two distinct warps, one of which weaves the background and the other weaves the pattern.

In this type of weaving, there is a firm background, usually of plain weaving,and a pattern formed of a different thread, either as to color, kind, or both which does not interweave with the background but merely forms vertical skips. Those above the web make the pattern while those below the web simply stay there, loose, until required again for the pattern.

How it is warped and threaded depends to a large extent on the pattern chosen. If one desires an all-over design, the entire warp may be double. However, if a pattern of isolated units is desired, or stripes down the edges, etc., only a few sections of pattern warp are needed and so they may be made separately. It is more commonly made the latter way, but no matter how the warp is made, the threading is the same. By the way, it is easier to thread a double warp from the front of the loom than from the back, although with almost every other weave we prefer, personally, to thread from the back. In a fine warp with the pattern threads the same weight as the warp, for example 2/16 cotton and 2/32 wool, if the cotton is set at 30 ends to the inch, the wool should also be set 30 ends to the inch, making a total of 60 ends to the inch, and these should be threaded alternately. (Fig. 1). Using a heavier pattern thread, one such thread might be used after each pair of base warp threads, for example, 2/8 cotton at 24 ends to the inch might be set with a pattern warp of 6-strand cotton at 12 ends to the inch. (Fig. 2)

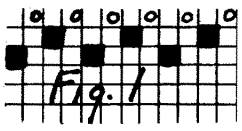


Fig. 1

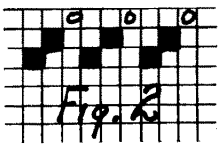
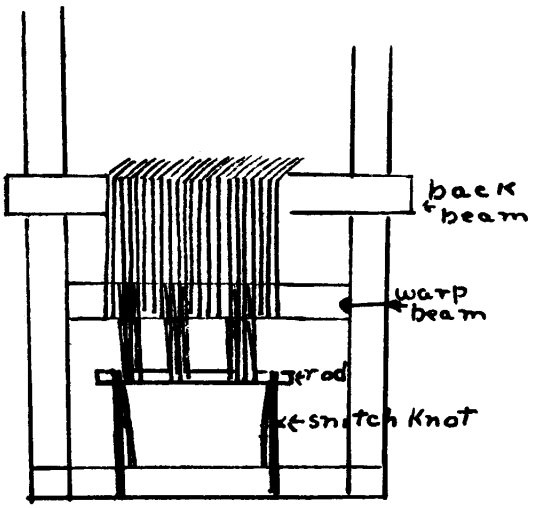
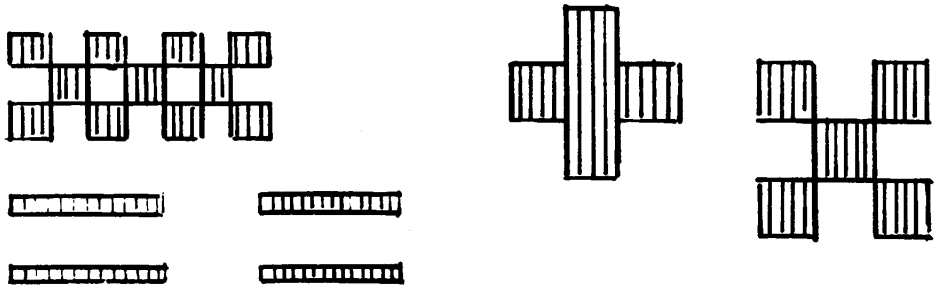


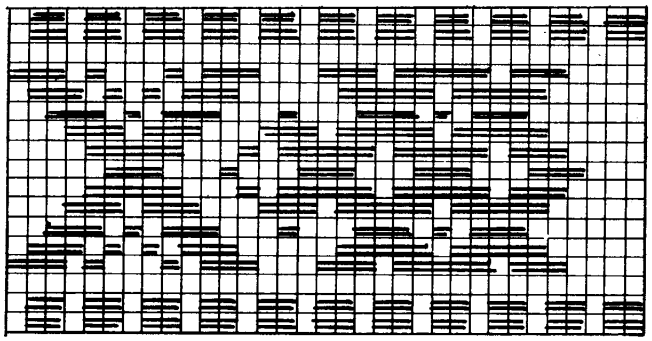
Fig. 2

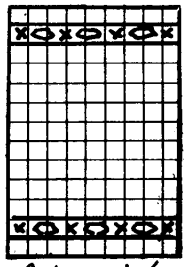
The best way of handling two warps is of course on two warp beams but double warps can be used on a single warp beam, if care is taken in pulling up the slack. This is not too inconvenient in a short piece but if one is contemplating weaving draperies or any such long piece it is far better to try to use a loom with a second warp beam. Some weavers have found it possible to tie a second loom back to back with the loom is use and then use the beam from the other loom as a second warp beam. Otherwise one is almost forced to roll the warp forward after a section has been woven and retie the pattern warp at the back beam. A staisfactory method of taking up the slack, is to insert a rod between the pattern warp and the back beam and to tie that rod with snitch knots to the stretcher at the base of the loom, shortening the cord as the length of the pattern increases. This method, too, is better for short warps than for long ones.(Fig.3) Another somewhat similar method that Miss Black found satisfactory in weaving the warp-pattern book-markers (March 1959 SHUTTLE CRAFT), was to wind both the pattern and background warps on the same back beam; raise the harnesses holding the pattern threads;slip a long, flat, smooth, poke shuttle between the 2 sets of threads; push the shuttle down under the warp beam; and weight the ends of the stick with a plastic bag at each end containing nuts, bolts, padlocks and what-have-you. This system worked well on her 24" wide warp and automatically kept the pattern threads at the right tension; however, for wider warps she suggests adding one or more bags of weights spaced across the shuttle.



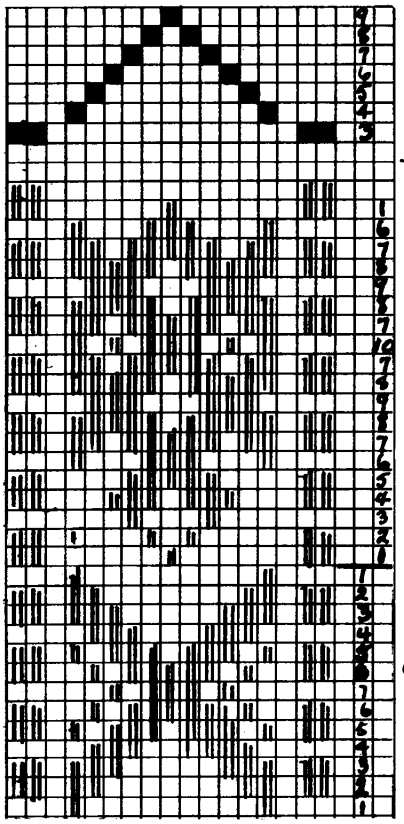


The elaborateness of the pattern and the number of colors used depends to a large extent on the number of harnesses available. With a four-harness loom since two harnesses are the minimum for plain weave, only two are available for patterns. This limits one to checks, small flowers, dashes, and the patterns designed for pick-up weave, weft pattern, can be adapted to threaded warp pattern. As given in PELLAVASTA KUDOTTUA, a Finnish weaving book, (see SHUTTLE CRAFT, Aug.-Sept. 1958), this pattern, Fig. 5, can be woven in pick-up, the pattern being in the weft.





Weft pick-up
Fig. 5

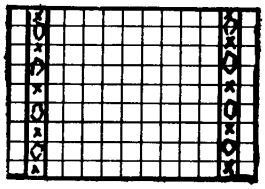


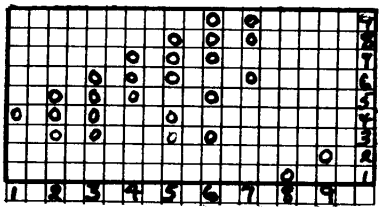
Warp-pattern
Fig. 6

Treadling

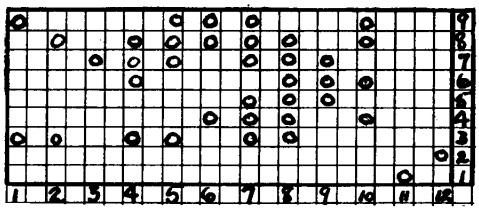
(b)

(a)



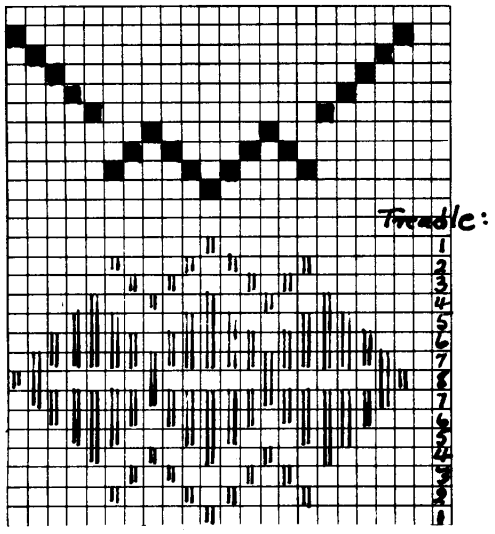


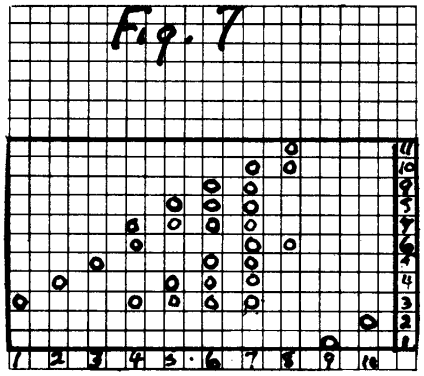
(a)



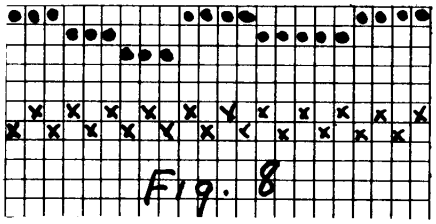
(b)

However, this pattern can be woven far more quickly and easily by threading it in the warp and weaving it warp - pattern. To make a towel or placemat with a border only, at both ends, it would be necessary to make two pattern warps, but if small pattern units as well were required, each pattern stripe would need pattern warp threads too. The threading and tie-up are seen in Fig. 6. Likewise Fig. 7 shows another adapted pattern.





The best drafts for producing warp-pattern designs are the point twills. Endless variations of pattern can be formed from these twills which of course increase in complexity with the number of harnesses used. In most cases the best results are obtained when each unit is repeated several times. (Fig. 8) Snowflakes, leaf and vine patterns, stars and geometric figures are all possible in countless color combinations. All one has to do is to design the figure from the draft and then decide the tie-up to produce it.



The basis of the tie-up is: the warp pattern thread must be on top and remain there while the plain weave or background is being woven and until the required length of skip has been reached; then the pattern thread must drop below the web and stay there loose until it is again brought up to from part of the pattern. Therefore, assuming that harnesses 1 and 2 are forming the plain weave, 1 and 2 must always be used, along with whatever pattern harnesses are nec-

essary. Normally, 1 and 2 are tied alone and treadled along with whatever pattern harness is needed. Sometimes the pattern harnesses are used in combination and can be tied to weave so, if enough treadles are available. Of course with a handloom, any number of harnesses can be raised without thinking of tie-up, so much more complicated patterns can be attempted. Thus, both Fig. 6a and Fig. 6b can be woven in succession easily on a handloom but would require a change of tie-up with a foot loom. In weaving the patterns, when the warp is threaded 1 and 1 as in Fig. 1, one tabby shot is equivalent to one pattern skip, but the more usual threading is as Fig. 2, and here two tabby shots are woven for one pattern skip.

Very few patterns are published for this type of weaving, but two very interesting ones are to be found in the same Finnish book PELLAVASTA KUDOTTUA to which we referred before. One of these takes 13 harnesses and the other 11, but the results are well worth the trouble of finding the looms. However, a great many simpler pick-up patterns may be adapted, the chief difficulty to watch for being long skips. These can always be minimized by breaking the skip by sending the warp thread "under", i. e. tying it down for one or two shots.

So far we have referred to all background webs as plain weaves. There is no reason for this except it frees more harnesses for pattern. Summer and winter weave does not occur only with harnesses 1 and 2 as tie-downs but can be woven with a point twill as tie-downs with pattern added every second thread (Bergman). In the same way, warp-pattern weaves may be done with twill backgrounds, threaded 1, 2, 3, 4: or summer and winter even, threaded 1, 3, 2, 3, giving more interest than the plain web. Because the pattern warp is lifted up while the background is being woven, any background which does not produce long overshots can be used. Again, it is not necessary always to use the same warp as weft for background. In an interesting piece brought to our attention, the warp was white ramie, the weft pine needles, and the pattern warp white chenille. The background was woven in plain weave but with two shots of pine needles followed by one of ramie and metallic (together), which staggered the tabby succession thus (Fig. 9) It is a most interesting example of warp-pattern weaving.

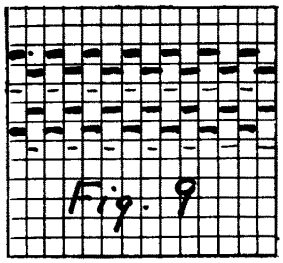


Fig. 9

As for the uses of this weave, it is obvious that it makes a one-sided fabric. The long skips on the back prevent its use in towels, tablecloths etc. except in such places as the table mats in the May issue of SHUTTLE CRAFT. There, a wide plain hem was woven which, when turned back completely, covered the threads on the underside. This weave is useful for upholstery when the skips are not long and especially for draperies. One of the requirements of draperies is that the strength of the material be in the warp because that is where the strain will be,and this particular weave certainly adds warp strength. Moreover, as most draperies are lined, the loops on the underside do not show. Beautiful effects with colored threads and metallics can be disigned for warp-pattern draperies. It is also a useful weave for evening bags, or, in fact, in most places where one can use brocade, and for lovely wall hangings.

We think it should be used more, both because of the ease of weaving, and the immense possibilities of colors and design where one wants it and we hope that we will soon see many more pieces in warp-pattern weave.

TWIST DYEING

Have you ever tried twist dyeing?

It belongs in the tie-dye class and some interesting effects can be obtained after a little practice.

A piece of material left over from a plain web in either fine wool, cotton, linen or silk could be utilized for an apron, scarf, blouse front or place mats if dyed in this manner.

Pleat material lengthwise in pleats about 2" wide, keeping the pleats as even as possible. Holding a pleated end in each hand stretch the material to its fullest length and twist it tightly and evenly. When twisted fold the material in half and allow it to twist around itself. This may sound complicated but it is exactly what we do with a skein of yarn after its removal from the reel before we put it away. It would be advisable to sew the two ends together, with large stitches, to prevent the material from untwisting while dyeing. After this is done proceed with dyeing in the customary manner.

DYEING WITH NATURAL DYES

by Mary E. Black

In this day and age of scientific dyeing with its myriad of beautifully colored yarns readily available for our weaving we are perhaps prone to ask: "Why bother with dyeing?"

As craftsmen our interest lies in dyeing with natural, rather than with chemical dyes because from the many dye-giving natural media we can obtain soft, yet brightly harmonizing natural colors which, though they do fade over a period of years, do so gracefully retaining much of their original beauty. These attributes are not found in chemically dyed yarns.

Dyeing with natural dyes is not indigenous to any one age or locale, it is Universal.

Some of the earliest dye media of which we read, in ancient history and in the Bible are the celebrated Tyrian purple which was obtained from the juice of a Mediterranean shell fish; indigo, a plant juice, yellow when fresh but turning to a beautiful and permanent blue when exposed to oxygen; woad (Isatis tinctoria) a plant producing blue which replaced indigo; saffron, a yellow dye obtained from crocus bulbs; and, also yielding yellow, another plant, weld(reseda luteola); the kermes bug (cocci ilici) produced a rich red crimson; the cochineal another bug yielding red which has largely replaced the kermes; and kutch, a plant producing a brown dye still used by fishermen to dye their nets.

The chances are that you will not have access to all of the dye media mentioned in this article. If there are any of them which you particularly want, and cannot find in your garden or along the roadside, write to some reputable botanical crude drug firm.These firms can furnish you with upwards of some 2000 different botanical specimens. You may wonder what the connection is between crude drugs and dye media. The first settlers to come to this country knew, through experience, that many plants had a dual purpose, being efficient in curing illness as in producing dyes. Small wonder then that they lovingly tended these precious plants on the rough voyage across the ocean. Around old homesteads can still be found roots of madder, woad, weld, crocus and others.

Individuals interested in vegetable dyeing seem to have many characteristics in common. Perhaps the essential ones are a deep love and appreciation for nature and her secrets. A love of roaming fields, hillsides, the woods and lakes and sea shore is coupled with an intuitive recognition of plants or lichen suitable for dyeing. They also know the exact moment when flower, bark or lear is at its best. They are true draftsmen in tune with their media and they see much which escapes the average person.

No amount of laboratory study can substitute for this innate knowledge. This is perhaps born out by the book HOME DYEING WITH NATURAL DYES. The authors did a remarkable job in giving us much accurate information from a scientific angle, but it is from such Thoreau-like individuals as Mrs. May Stronach and Mrs. Edith Bethune of Nova Scotia, Mrs. Emma Conley of Penland and Nonabah Bryan of the Navajos who uncover for us the secrets of natural dyeing.

Dyeing with natural dyes is an activity not particularly suited to the apartment dweller. Those who delve into its mysteries like to do the dyeing outdoors in a small open shed; in the shade of a tree or building where the bright sun cannot reach the dye bath and fade the dye before it is set.

Wool lends itself better to natural dyes than other yarns. Cotton is difficult and linen should be avoided as it is so very hard to dye that even professional dyers have difficulty with it. We personally have had no experience in dyeing silk with natural dyes but as it responds easily and satisfactorily to chemical dyes there is no reason why it would not be as successful with natural dyes.

Probably the craftsmen most interested in dyeing their own yarns are the tapestry weavers. Many of them purposely dye their yarns unevenly so they will have the added advantage of having several shades in a single strand. Additional shading is obtained by dividing the skeins and dyeing them in three lots. The first skein to be immersed in the dyebath will be dark, the second lot a medium shade and the third lot, which should be left in until all the dye is exhausted from the bath, will be the lightest. The natural dyed yarns are also suitable for bound weaving, flossa, rya and other techniques for floor and slumber rugs, wall hangings, couch covers and pillow covers.

Just what is a dye?

The history of dyeing goes back and beyond the year 3000 B. C. The early Egyptians had an excellent knowledge of the use of dyes and Violetta Thurstan in her writings has asked the question did they "understand the principle of the salts and acids they used. . . or. . . did they work by rule of thumb, always learning as they went on. . . " She con - tinues, quoting from Gardiner Wilkinson's translation "the Roman historian Pliny (born A. D. 28) describes the Egyptian method of mordanting so vividly that we could easily imagine it was a description of a modern process of today. He says 'in Egypt they stain cloths in a wonderful manner. They take them in their original state, quite white, and imbue them, not with a dye but with certain drugs that have the power of absorbing and taking colour. When this is done, there is still no appearance of change in the cloth, but as soon as they are dipped into a bath of the pigment which has been prepared for this purpose they are taken our properly col- oured. The singular thing is though the bath only contains one colour, several hues are imparted to the pieces, these changes depending on the nature of the drug employed, nor can the colour be washed off after.'"

The salts, acids and drugs referred to are known among dyers as mordants. These control the color of the dye and a dye with a few exceptions, will not set or be fast unless a mordant is used. In addition, after dyeing is completed, salt or vinegar is frequently used to fix the color.

Some mordants commonly used with natural dyes are alum; chrome (potassium dichromate); copperas (ferrous sulphate); tin crystals; blue stone; cream of tartar and tannin. There are many others and the directions for their use should be very carefully followed as the methods vary greatly from re- cipe to recipe. Extreme care should be taken in handling mordants as many of them are poisonous and should be kept out of the reach of children and animals.

Different mordants used with the same dye media will produce very different results, for example, a chrome mor- dant will give an orange dye when used with dahlia flowers, while alum will give a light yellow. Alum and cochineal will give a bright clear red while chrome and cochineal will pro- duce purple.

Some words which will crop up in the nomenclature of dyeing are: substantive dye, which is one which does not need a mordant; an adjective dye, which requires a mordant; and, a fugitive dye, which as its name implies cannot be made fast.

Mrs. Stronach warns, "with natural dyes it is essential that one must always dye at one time all the wool of one shade that is needed as the exact shades cannot be repeated. Water, different ground and fertilizers, the season of the year and the variations in season from year to year, and sun and mist all have an influence on the shade obtained."

The steps to be followed in dyeing vary somewhat with different dyers, but on the whole they are similar. The greatest variations seems to be in the method employed in using the mordant.Each dyer, like each craftsman, through experience works out his own method, but here in general are the various steps:

(1) The yarn should be in skeins, tied loosely around in four or six places. If tied too tightly the dye bath cannot penetrate properly and the dyed skeins will be streaked with white bands.

(2) Wash and thoroughly rinse the skeins with good soap or mild detergent. This removes all dirt and oil and thoroughly wets each strand so that mordant and dye can penetrate.

(3) Place skeins in the mordant leaving them the required length of time as indicated in the directions,remove, rinse thoroughly and dry or place the skeins directly into the dyebath without rinsing or add the mordant directly to the dye bath. The recipe you are using will tell you which method to follow.

(4) Prepare the dye bath. Quoting from Mrs. Stronach's note book: "To make a dye bath tie the bark, or other material,in a cheese cloth bag and boil enough water to barely cover--about as much water in proportion to the bark, etc., as you would use in making jelly, i. e. the water just coming up through the bark. It must, of course, be kept in mind that you must have enough water to let your yarn "float" or have water enough to keep the yarn from crowding. Barks should be boiled 2 hours and if it is convenient it is just as well to soak over night. Chop the bark up. With flowers do not boil more than 30 minutes and with plants one hour is sufficient to extract all the colour."

Mrs. Stronach also suggests that the best results are obtained if the wool in the dye bath is kept in motion but this "should be done with a swimming motion. Do not stir round and round the kettle or the yarn becomes matted. Use

smooth wooden sticks or glass towel rods for stirring."

Dyeing does not require too much equipment and most of this is easily obtainable.

First the kettle. This should be large and of either enamelware or copper. Cast iron kettles darken the colors and tin makes colors harsh; either acts as a mordant. Aluminum is satisfactory and so is stainless steel. If you plan to do much dyeing, purchase a kettle especially for the purpose as the dye is apt to stain the kettle and the presence of a residue of mordant might prove harmful to food cooked in it.

Accurate scales, weighing up to fractions of an ounce are necessary, and accurate accounts should be kept. While it is not possible as mentioned previously, to repeat an exact shade, it is nice to know just what media, and how much, was used to obtain certain colors.

Large pails are needed in which to rinse the skeins after dyeing.

Measures are needed: gallon and peck baskets, quart bottles or jars, table and tea spoons and a small saucepan or dipper.

Coarse cotton or cheesecloth is needed to make bags to hold the dye media or for straining.

It is advisable to have a thermometer, the type used to test candy is satisfactory, and rubber gloves will save the hands from stain. Store mordants in glass jars, plainly marked and with tight covers. A mortar and pestle is useful for grinding up dried leaves and flower heads.

If you have a special dye-house have your stove placed at a height convenient for stirring and for lifting the dye pots on and off.

Plenty of soft water, such as strained rain water, and a clothes line stretched in the shade are necessities.

If you are working outdoors, or in a special dye shed it is advisable to dig a hole in the ground in some unused corner in which to dispose of the dye water. Throw in a shovelful or two of earth after the dye has soaked into the ground. This will prevent animals getting into the possibly poisonous dye bath.

There are many plants from which beautiful dyes can be extracted, far too many in fact to list here. There is also the matter of geographical location; few plants are found in all sections of North America although different species of the same plants may be found in widely separated localities. The booklets listed at the close of this article will help you find suitable plants in your own locality.

The recipes which follow are those used to dye the portfolio samples. If you try them do not be surprised or disappointed if you do not get the exact shade. This difference will be due to the variables of water, soil, sun, temperature, etc. of which we spoke earlier.

#1 -- Onion skin -- yellow and orange

The brown brittle outside skins of the onion which are obtainable most everywhere produce an excellent dye shading from a light yellow through to a deep orange depending on the mordant used. (Wonder what color would come from the brown skins of the glad bulbs?)

This is Mrs. Stronach's recipe from Nova Scotia but you will find those given in other books to be quite similar.

"One must use their own judgment as to the amount of onion skins used to obtain the desired shade, but start with ¼ lb. of skins to 1 lb. of wool. It will be necessary to experiment as one kind of onion will vary from another. All shades from lemon yellow to henna can be obtained by adding more or less of the onion skins. Use ¼ oz. tin chlorine (poison) to one pound of wool. (This will give a yellow the color of our sample). For a pale yellow use 2 oz. of aluminum and potassium sulfate merck (powdered alum) to one pound of fine wool; use 4 oz. to one pound of coarse wool.Dissolve the required quantity of mordant in dye pot, add wool and boil from ½ to 1 hour. Cool. Tie the onion skins in a gauze bag and drop into the dye pot. Bring to boiling point and boil slowly for 1 hour. Remove wool and rinse in successive warm baths until water is clear. Rinse wool in small amount of vinegar. Do not wring skein. Hang to drip and dry, preferably outdoors but not in the bright sun."

Mrs. Stronach and other dyers claim that results are better if the dye bath boils slowly, never allow it to reach a galloping boil. Mrs. Conley of Penland says she does not have this trouble because the mountain altitude keeps her dye bath well under control.

#2 -- Beech -- (Fagns americana) -- golden beige

This recipe requires 4 pounds of beech bark to 1 pound of wool.

The bark may be taken from the tree during the summer and allowed to dry, or it may be taken during the winter. If broken branches are on the ground use the bark off these rather than destroy the tree by cutting new ones. The color of this sample is very similar to the color of the dead beech leaves which cling to the trees through the winter.

To prepare the dye bath crush the bark and place in cheese cloth bag. Boil it for 2 hours, lift out the bark, put in wool, and boil slowly for one hour.

For mordant use 4 oz. of alum.

¼ oz. of bluestone used instead of the alum, dyes a darker shade and for a grey-brown shade use ¼ oz of copperas.

The lighter of these shades would be quite suitable for the background of a tapestry.

#3 -- Wild Coreopsis -- (Coreopsis species)
Burnt orange to dark red.

It was a privilege one autumn to have been at Penland during the time Mrs. Conley was doing some fall dyeing.

Quite unexpectedly I happened to glance out the back window of the Lily Loom House and there were Mrs. Conley and her helpers hanging out skeins of freshly dyed yarns on the line outside the dye shed. Ones first impression was that they were reaching up into the trees above their heads, breaking off the branches of gaily colored foliage and hanging them on the line, so perfectly did the skeins of freshly dyed yarn reproduce these autumn colors.

Those of you who have been at Penland in the autumn will remember vividly the greens of the pines and the soft pinky-rusts, yellows and light greens of the oak trees.

Before leaving Penland I purchased some of Mrs.Conley's yarn dyed with wild coreopsis for which she gave me the recipe -- you will find it among the others in her booklet VEGETABLE DYING. It is a sample of this which is attached to the portfolio issue.

Sample on next page.

1 lb. of wool
½ lb. of coreopsis blossoms
2 oz. potassium dichromate (chrome)

To mordant the wool, wash it thoroughly in soap suds and rinse in soft water. Fill kettles (brass) and add the chrome. Let is dissolve thoroughly and when the water gets hot add the wet yarn and simmer for an hour. Rinse wool once and hang out to dry. The next day put the blossoms in the kettle with plenty of water and boil slowly for 20 minutes. Strain and return the ooze to the same kettle, when the dye bath begins to simmer, wet and drop in the wool which was mordanted the previous day. Allow it to simmer for about 15 to 20 minutes.

The strength of the dye determines the shade of the wool, which can vary from a pale rose to a deep rust.

Similar recipes are given in both HOME DYEING WITH NATURAL DYES and THE DYE POT.

In the latter publication Miss Davidson uses coreopsis major, "which," she writes, "has a vast amount of dye in its flowers, leaves and stalks. These can be used fresh or dried to give lovely shades of yellow with alum and a rich orange with chrome."

#4 -- Lambkill or Sheepbane -- Brown.

In spite of all the browns one finds in nature there are not too many which will give a good clear dark brown, most them turn out to be muddy. There is something you will learn early about choosing plants and flowers for dyeing and that is that pink flowers will not necessarily give you pink dye nor will glossy green leaves give you green dye. It is the unexpected results which makes dyeing so challenging.

The lambkill which is found in profusion in the northern latitudes is a member of the Heath family (Ericaceae) of which the Laurels are a sub family, therefore it is quite possible that some of the southern laurel might produce the same color. Lambkill with bluestone produces a lovely clear rich dark brown. The proportions are 4 lbs. of crushed twigs to one pound of wool.

Boil the twigs 2 hours, lift them out and boil the wool which has already been mordanted with ¼ oz. of bluestone per

lb. of wool. Use $\frac{1}{4}$ oz. of copperas per pound of wool for a grey-brown shade and for a golden brown use 4 oz. alum per lb. of wool.

From the following list of books which contain recipes for natural dyeing from many sections of the continent, as well as from New Zealand, you will be able to select one or two which will give you the help you need to get started on this very interesting activity.

Furry, M. S. and Viemont, B. M.

HOME DYEING WITH NATURAL DYES .20
Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C.

Conley, Mrs. Emma

VEGETABLE DYING Write for price.
Penland School of Handicrafts, Penland, N. C.

Lloyd, Joyce

DYES FROM PLANTS Write for price.
Kerslake, Billens and Humphrey Ltd., Printers.
Levin, New Zealand.

Davidson, M. F.

THE DYE POT $1.75
Shuttlecraft Shop, Middlesboro, Kentucky

Bryan, N. G. and Young, S

NAVAJO NATIVE DYES Write for price.
Education Division, U. S. Office of Indian Affairs, Washington, D. C.

CATALOGUE OF BOTANICAL CRUDE DRUGS

Dominion Herb Distributors
1451 St. Lawrence Blvd., Montreal, Quebec

Thurstan, V.

A SHORT HISTORY OF ANCIENT DECORATIVE TEXTILES
26 shillings
School of Weaving, Mount Mary
Flushing, Cornwall, England.

FRENCH GOBELIN, Part IV

by Joyce Chown

(This is the fourth and concluding article in this series on the French Gobelin technique. The first three articles were printed in the November and December 1958 and May 1959 issues.)

Before continuing on from where we left off last month, there are two things that should be mentioned first.

First, where to get bobbins? We get ours from Major Thomas Bromage, Herring Cove P. O., Halifax County, N. S. Major Bromage makes 4 different shapes, that is, one has a fine point and shoulder for narrow weaving areas, one has a broad shoulder and shank for wider weaving areas and the other two shapes are in between these. If you don't have any bobbins and wish to start this technique, we suggest that you order about 4 each of each shape. This will give you enough to start with and then once you have tried them out you will know which one you like best and which one you use most, and can re-order accordingly. Also, if you want or need a size or shape that he doesn't have, and can make a sketch of the exact dimensions you want, he will make up the order for you. All his bobbins are well made and the prices are reasonable.

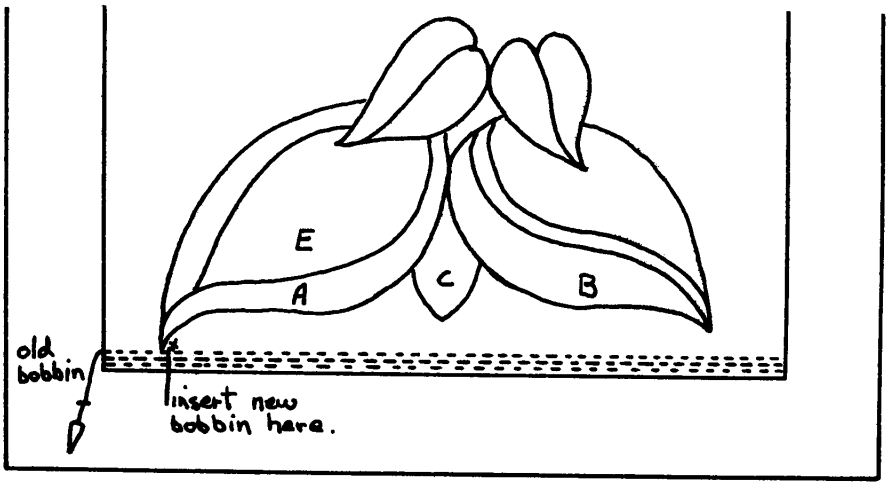
Secondly, a piece of advice which we overlooked in previous articles in this series. If you wish to weave a larger tapestry than we have suggested on the tapestry frame we are using, larger canvas stretchers will not answer your problem. They are not strong enough and will warp out of shape with the strain of more warp threads. If your tapestry is only 1" or 2" wider or longer, you may get away with a larger frame made of stronger and heavier wood. But it is safer to use a tapestry loom, of sturdier construction and preferably with bottom and top rollers, i. e. cloth and warp beams.

Now back to where we left off in May. We have discussed the procedure in weaving from left to right, and from right to left; we have woven the bottom border, part of the two side borders, and part of the design; and, we have discovered that wherever a vertical line appears in the design, a slit appears in the woven tapestry.

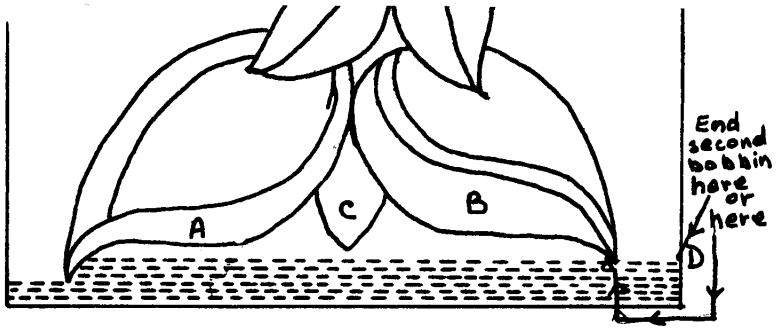
Before discussing the weaving of curves and diagonal lines it should be emphasized again, that no matter whether

you are weaving curves, diagonals, vertical or horizontal lines, the weft is always woven at right angles to the warp.

In the May issue, our hypothetical design was made up of horizontal and vertical lines only, and started right on top of the border -- that is the background did not completely surround the design. To give another example, this month we have made a non-geometrical design sketch, with a background. This to show the weaving of curves and diagonals as well as vertical and horizontal lines.



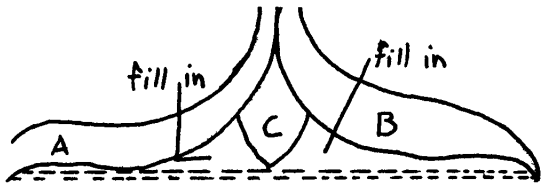
Following the sketch, weave with the background color bobbin, back and forth across the background up to the point where the first "dot" of the design (A) is just covered. (See dotted line in sketch above.) Tie a half-hitch around the neck of the bobbin and let it hang down the working side of the tapestry. Insert a new bobbin as shown in the sketch and continue weaving the background up to the next part (B) of the design--see next dotted line.



This bobbin may end at the right border (D) or just inside the tip of the right leaf shape (B). If you leave the bobbin

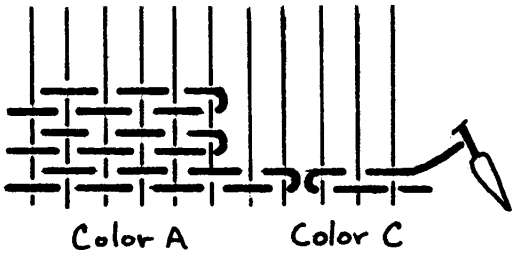
at D, tie a half-hitch around this bobbin, leave it there, and insert a new background bobbin; if you leave the bobbin at B, merely turn and weave back and forth up to the next design area (C).

Fill in the remaining background between A and C, clip the end of the weft and then use the same weft to fill in the background between B and C. Clip off this bobbin. Remember to leave an inch or so of weft hanging when you begin a new bobbin, or when you have finished with a bobbin.

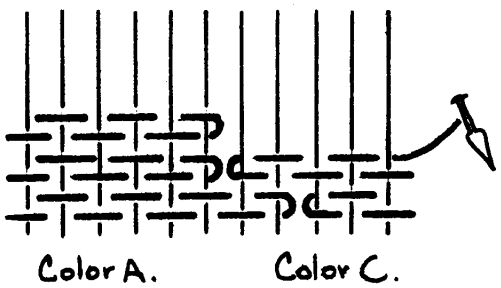


You are now ready to start weaving the design. You could start weaving either the A or B parts but sooner or later you would have to stop and weave the C part. You could not complete either the A or B parts first because you would be creating an overhang--over the C part--under which it is impossible to weave. Therefore, fill in the C part first.

When you are filling in an area such as this you may weave for a few rows and then find that the color with which you are weaving doesn't seem to be weaving on the right sheds to fill in properly. For example--see sketch -- suppose you have woven color A and are filling in with color C. You can see that the next shot (from right to left) you take with color C, will not weave correctly since it looks as if it must go over 2 warps threads, but <u>this must not be done</u>.

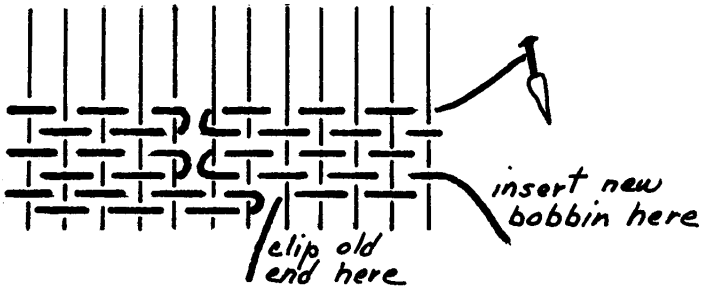


This can be remedied in either of two ways.The first and best way, is to unweave the C color back to where it began and reweave it so that the weft goes in the right direction, and does not make a skipped warp thread.



Sometimes this does not correct the weaving, in which

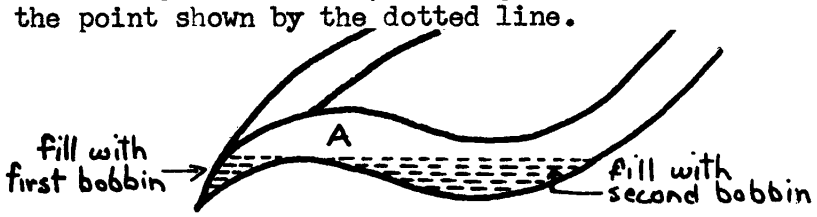
case it may be necessary to clip the weft you are using and start again on the opposite side of the color area, thus:



However, if you can correct the sheds by the first method it is much better to do so.

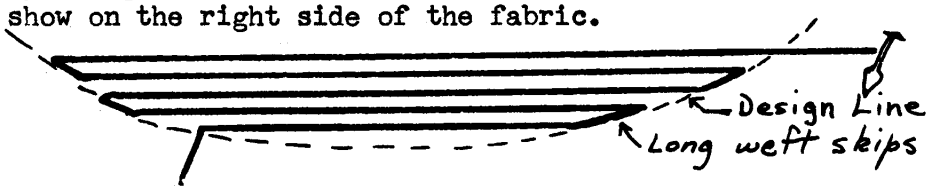
After weaving part C of our design, either the A or B parts may be woven next, it doesn't matter which. We'll start for example with the A part.

Wind a bobbin of the color desired and start weaving at the lower tip of the leaf, filling in as described above, up to the point shown by the dotted line.

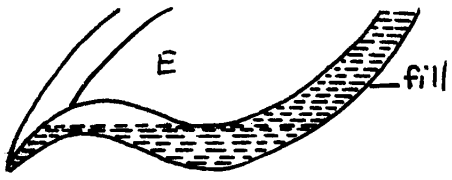


With a second bobbin, fill in the long horizontally curved part of the leaf up to the point where it is level with the first filled part as shown above.

When filling in long slow curves such as this, it is often necessary to have long weft skips on the working side of the tapestry along the edge of the design area. This is perfectly alright and cannot be avoided. These long skips do not show on the right side of the fabric.

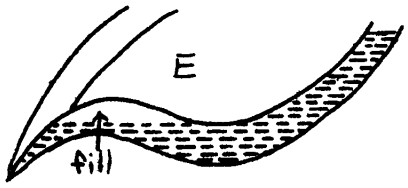


Now continue weaving back and forth until you meet the next design color. The right side of this A section may now be filled in completely.

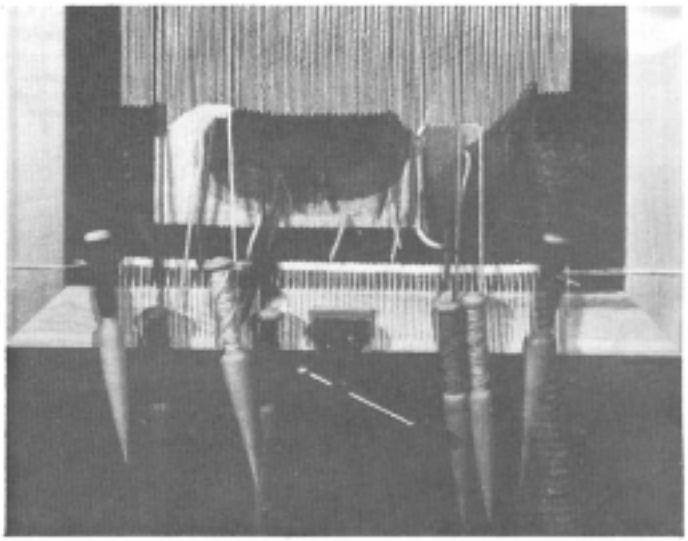


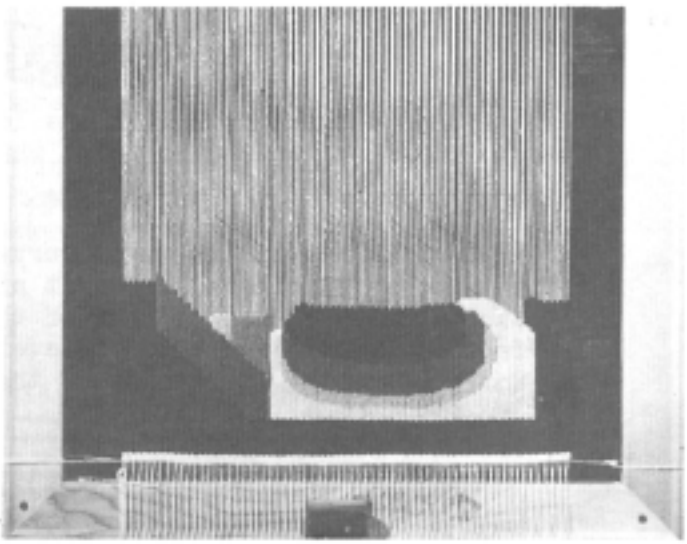
Clip the bight of the weft and fill in the left part of this A section

Now start weaving either the E or B design parts, filling them in as described above.



You will find as you go along that it is sometimes more convenient when weaving from left to right to use the closed shed rather than the open shed; and similarly when weaving from right to left to use the open rather than the closed shed. This will happen as your weaving progresses and the design becomes more complex. This is quite alright as long as you don't have any skipped warp threads or "lice" (specks of white warp showing through the colored weft.)





The steps already described for building up and filling in are used throughout the weaving with variations of course, depending on the shapes to be built up and filled in. Aside from these steps, practice is the greatest help since it seems to be the best way to learn how to weave smooth curves and diagonals, how to make sharp or obtuse points, how to weave vertical lines perfectly vertical, and how to get that all important correct beat so that the tapestry as a whole or in part does not pull in or draw out.

Finish weaving the design and background; weave the top border the same width as the side and bottom borders; and, complete the weaving with a warp cotton heading the same width as was done at the beginning.

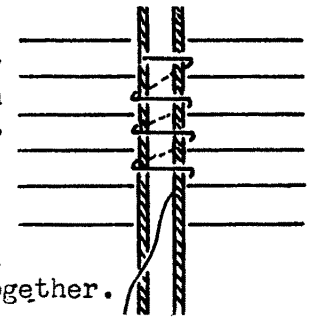
FINISHING THE TAPESTRY

The vertical slits in French tapestry are always sewn

together. This may be done on or off the loom but for this first piece, the beginner may find it more convenient to sew the slits while the tapestry is still on the loom.

Turn the tapestry right side up. Use a semi-dull, medium sized tapestry needle threaded with grey or natural linen, or 2/8 or 3/10 mercerized cotton. Tie a knot in the end of the thread.

Holding the needle under the work, sew up <u>through</u> the warp thread that lies at the top left of the slit being sewn. Pull the thread straight up until the knot is tight against the underside of the warp thread.



Carry the needle across to the other side of the slit and run it down between the first and second threads on the right of the slit being careful to pass it between and not through the warp or weft.

Pull the thread until it is snug and the two edges of the slit lie smoothly together.

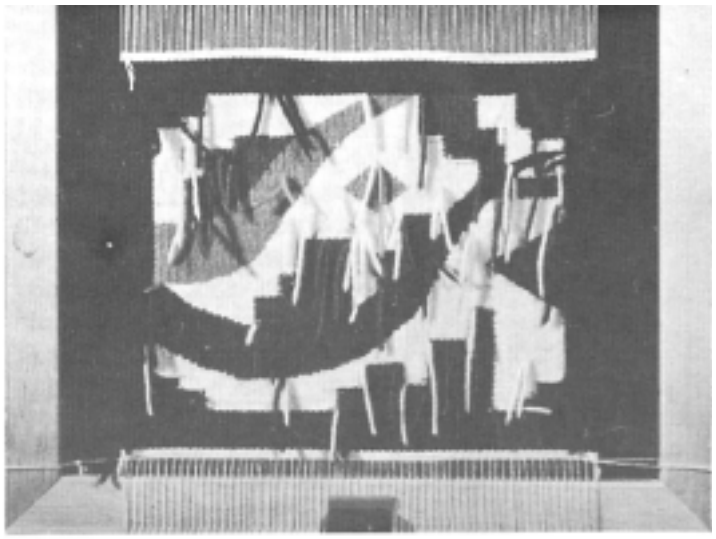
Cross under the slit and bring the needle up $\frac{1}{4}$ to $\frac{3}{8}$" below the place where the first stitch was made and bring the needle up between the warp and weft threads. Continue in this way until the slit is sewn together. End on the bottom right of the slit; pass the needle <u>through</u> the warp thread to the back of the weaving; and knot the thread securely on the wrong side of the material.

<u>The sewing threads will show on the right side of the material</u>. <u>This is technically correct</u>. We underline this because we have known of weavers who have sewed the slits in their tapestries together in this way only to have the tapestries rejected at national exhibitions and competitions--in Canada and the U. S. -- because they were "not finished correctly." They <u>were</u>, in fact, quite correctly finished.

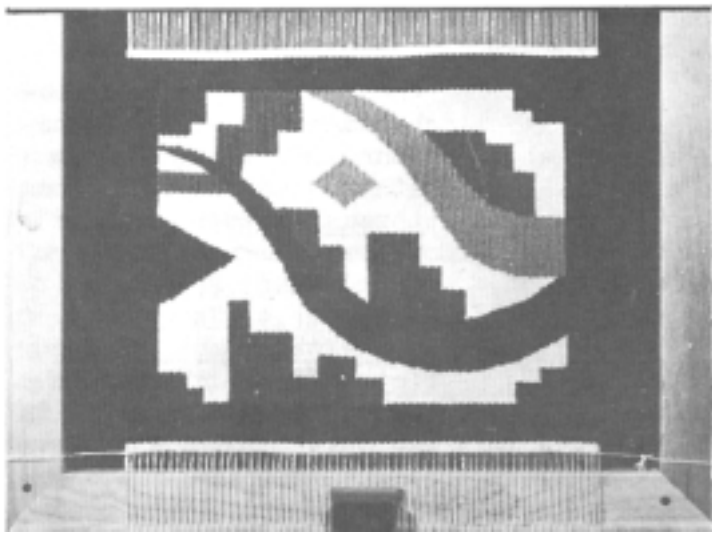
If your tapestry has a long, slow, vertical curve in it with several slits almost one on top of the other to make up the curve, sew these together with one long thread, rather than several shorter pieces. This is quicker and also stronger.

As described for the Swedish Knot technique (SHUTTLE CRAFT, June-July 1958), cut

the tapestry from the loom; machine stitch the ends; steam press, or preferably block; turn the cotton heading back under the tapestry and stitch in place; and line if desired.



Wrong or working side of finished tapestry.



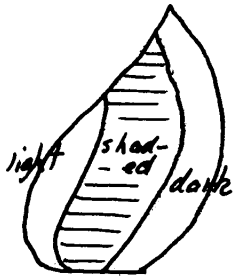
Right side of finished tapestry. Note sewing stitches showing across slits.

SHADING OR "HATCHING"

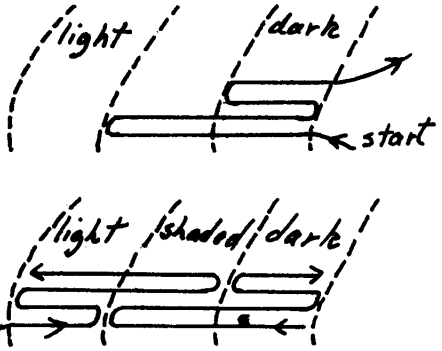
Last month we said, "magazine space permitting, we will also deal briefly with some of the possibilities of shading or 'hatching' in this technique." Magazine space won't permit much, but interested tapestry weavers who have woven one piece of the non-shaded tapestry will doubtless be anxious to try some variations.

The simplest shading is done with two colors. For

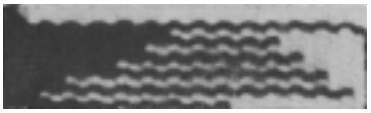
example if you have a leaf or petal form with a light color on the outside and a dark color on the inside, you can make an intermediate third color by mixing the dark and light color together.



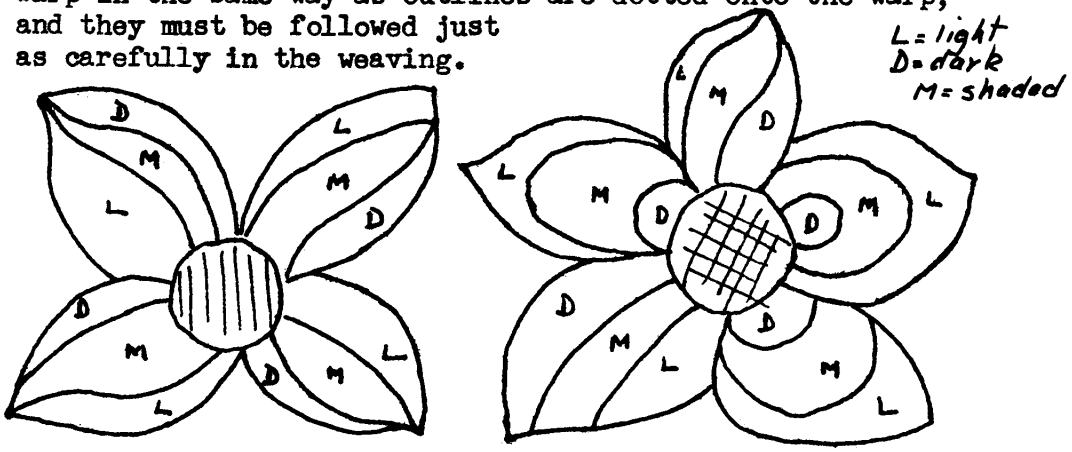
Using this as an example, take the dark bobbin, and starting at the right, weave from right to left to the beginning of the light section; turn and weave back to the right edge of the design; turn and weave from right to left back to the shaded section only; turn and weave back to the right of the design.



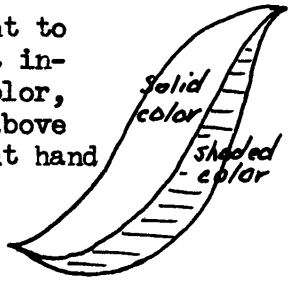
Now take the light bobbin and insert it at the left of the light design area; weave from left to right to the left side of the shaded area; turn and weave back to the left of the design; turn and weave from left to right across to the left side of the dark section; turn again, and weave back to the left side of the light area.

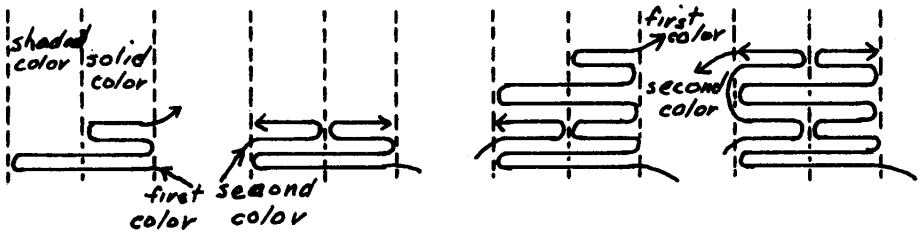


These two steps complete the process for two-color shading: four rows dark weft, 4 rows light weft, and repeat. The design lines for the shading must be dotted onto the warp in the same way as outlines are dotted onto the warp; and they must be followed just as carefully in the weaving.

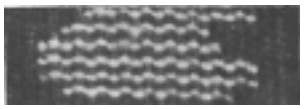


If when using 2 colors you do not want to have 2 solid colors and a shaded area, but instead, a shaded area and just one solid color, this is done almost exactly as described above except that it eliminates the left or right hand color as desired. (See sketch next page.)



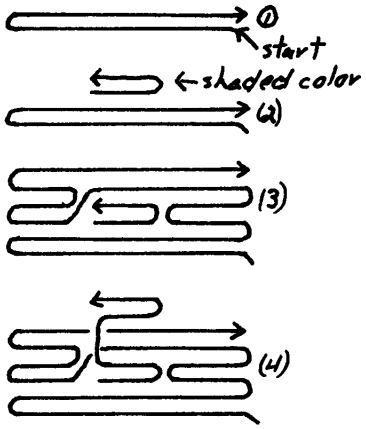


Another variation of two color shading is known as "layering". This type of shading is done when you want shading in the center of a color area and the same solid color on either side of it.

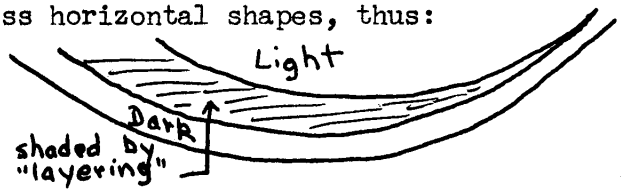


To weave, start with the solid color and weave back and forth across the width of the area to be woven.(1)
Next, weave back and forth with the "shaded" color in the desired position. (2)
And fill in with the solid color as shown. (3)
Pick up the shaded color bobbin, carry it across the solid color and weave in the next two shots. (4)

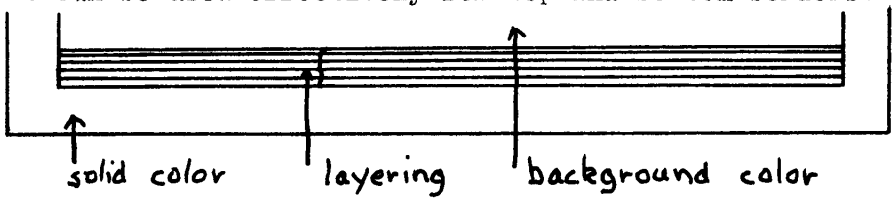
Continue alternating these last two steps for the desired pattern.



Layering can be used for shading more or less vertical shapes as described above. It can also be used for shading more or less horizontal shapes, thus:



It can be used effectively for top and bottom borders:



And you will think of many more places and ways to use two-color shading as you do more designing for and weaving of this tapestry technique.

THE WEAVER'S BOOK SHELF

By Boris Veren

Weavers who have been itching for an English translation of Monsterblad #11 on Woolen Weavings may now scratch themselves into a peaceful relaxation and understanding, for this month's sea-packet boat brings us a mimeographed translation made by the Swedish Homecraft Society. Monsterblad #11, in case you don't have this handsome folder, contains designs for woolen weavings, including 48 patterns for suiting and dress materials, 14 scarves, 8 shawls and plaids. I'd like to say a few words about this translation which may also apply to some of the other recent Monsterblad translations. I cannot say that this translation is deathless prose of any sort! And I must ask readers to be tolerant of crazy syntax, sentence construction and exotic vocabulary; and to read this charming prose with mild amusement, if nothing else. You won't go wrong on the weaving instructions, I assure you, although you will have to make equivalents for the measure and weight system from the Continental metric system, to the one we use here. The translateress, and I use this word with poetic abandon, as this very person addresses you as a "weaveress", will not, I think lead you too far astray in the technical weaving directions, and at her worst she mournfully tells us that "fabric dies." That may be so, but you will understand that she refers to "fabric dyes" won't you? And haven't some of us made that inevitable error of writing "weather" for "whether?" Well, one SHUTTLE CRAFT reader from Illinois after receiving this particular translation writes: "Dear Mr. Veren: The translation for Monsterblad on Wool Weavings is worth heaps! One word in it has me puzzled,and is there any way that you can straighten me out? Page 3, under 'shrinking', what is 'bastard paper?' Somethings tells me that it would take the place of tidball's rolling wool yardages in wool blankets which is not feasible for me. We don't have wool blankets to spare and use that way,and I've wondered who else does. Besides, I'm really curious on this one and hope you are too. Can't you picture a demure, serious young thing hitting the wrong line in her Swedish-English dictionary and coming up with that? Or is there such a paper and am I being stupid?"

My gallantry in not answering the last question does not hide the fact that I am unable to answer the first of

my correspondent's question. Can some one, either demure and serious, but preferably Swedish and knowledgeable help us? And I'll pay in advance for this information, right now by listing some useable information about the Swedish Unit of Measure or the Metric System. When you read in these translations "30/10" this refers of course to 30 threads in 10 centimeters. To find out how many threads to the inch, you divide 10 by two and one half, which gives you four. Then divide 30 by 4 and you have $7\frac{1}{2}$, and you would therefore use a 7-8 reed. If you wish you can copy this ready reference table:

26/10	$6\frac{1}{2}$ to 7 reed	75/10	18 reed
30/10	7 to 8 reed	83/10	20 to 21 reed
43/10	10 to 11 reed	90/10	22 reed
46/10	11 reed	100/10	25 reed
57/10	14 reed	108/10	28 reed
60/10	15 reed	120/10	30 reed
65/10	16 reed		

The price for the translation of the text alone is 75 cents. If you do not have Monsterblad #11, the complete price with the translation is $4.50

In the April 1959 issue of SHUTTLE CRAFT, I mentioned briefly my catalogue of Needlecraft. One of my customers who is also interested in embroidery, called my attention to one of the listed books by writing me: "The little Norwegian FORM OG FARGE I MODERNE NORSK BRODERI (Design and Color in Modern Norwegian Embroidery) by Ruth Eines, is a gem! my husband say it and said why don't we do lovely work like that over here? Did you know that this is a weaving book as well as an embroidery one?"

Well, I did not know, and as I didn't have a copy handy, I wrote my correspondent, asking for some pertinent information that I might pass along to you. And so I extract from her letter: "The left hand pages have the description and sometimes the weaving directions for excellent black-and-white and the 4 color photographic illustrations of table linens and cushions, which are illustrated on the right hand pages. The 4th and 5th pages are also given over to weaving directions for the embroidered materials. The weave is all taby or broken twill on a 4-harness twill threading. The materials are all done by texture stripes or color stripes in the weft. The warp is given only as either white linen or black cotton. The weaving is all very simple, but is used to set off the embroidery,

which is also very simple in most of the designs. No exact directions are given for the embroidery, although the pictures are so clear that in most cases you could copy them. Did I make it clear that all the embroidery is on handwoven material? In only 6 pieces is the linen plain tabby that might well be 'store bought'. In other words, the woven design is just as important as the embroidery design. Also, all the table linens are shown with a few pieces of lovely modern china, pottery, silver, stainless steel, etc. on them. It is printed on very good slick paper, good print, a paper cover, beautifully illustrated, and on a par with the Monsterblad series, or almost. Size is 7 by 7½ inches, and there are 48 pages!"

And now that I do have FORM OG FARGE in present stock, I can see that indeed it is a lovely collection of fine place settings. I would be proud to have woven, or just to own the place mat with embroidery on handwoven cloth illustrated on page 15, and the runner in grey and white on page 33 would receive an award from me at any weavers conference. And I would be tempted to steal, if I could not buy, the sweet place mat, illustrated in color on the front cover of the book, for it is embroidered, as the caption says, with wild caraway seeds!

The price of FORM OG FARGE is $2.25.

If you haven't already seen a copy of Mr Veren's catalogue of "Books for the Weaver" and the "1959 Supplement" to the catalogue, you will be interested in his listing of a new book on the double weave, and three "magnificent" books on tapestry weaving. All are from Norway. To quote Mr. Veren, they are:

"DOBBELTVEV I NORGE, (Double Weave in Norway), Helen Engelstad. Norway, 1958. Danish text, with English summary and list of illustrations. A deluxe and profusely illustrated book. Presents the history, the looms, the patterns, the dyes and colors, the uses, the weavers, the different techniques and variants of double weaving in 18th and 19th century Norway. $24.00

"NORSK BILLEDVEV 1550-1880, by Thor B. Kielland comes in three volumes -- at $18.75, $24.00 and $24.00 respectively. As with the above book they are deluxe editions in large 14½" x 11" size; written in Danish with an English summary and list of illustrations and plates. All are copiously illustrated in both black-and-white and full color plates."

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