

# warp and weft

VOL. XXVII, No. 7

September, 1974



## warp and weft

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### A Word from the Editor

Well, don't be surprised when you get this issue, as our June issue has been at the printers almost two months now, and we don't know yet when we will get it to prepare for mailing. And, once we do get it ready for the mailing, I don't know how long it will take to reach you. We have had three packages sent lately via parcel post to New York and New Jersey, and it took over 50 days for delivery via parcel post.

We have had two men who do quite a bit of weaving for us, and weave almost all of the samples for our bulletins. However, they both have been unable to do much weaving for several months, and now both of them have a project started for Warp and Weft.

The sample in this month's issue was woven for us by my daughter Janice, as part of her activities in the shop. She does so enjoy weaving. Now, she has a 4-harness plaid which she is setting up on the loom, and she took this same plaid, and designed an 8-harness double weave also, which will have a plaid on the top, and a solid color on the back of the double weave. We hope that we can use these at the same time, one to be in Warp and Weft, and the other to be in the multiple harness bulletin, Drafts and Designs.

We still have hopes of catching up. There are actually four projects in progress for Warp and Weft samples, by four different weavers, so we do hope that they will be finished soon, and we can write two or three issues at the same time, to try and catch up. Please don't give up on us.

It has been a hectic time this past month, as we've been trying to keep pace with many hard to obtain items, and to get our two bulletins back on an even keel, and to keep track

of and put away some of the many items that I found on my trip to England, Ireland, Switzerland and Germany in September.

Enuf excuses for now, and back to the sample for this month's issue.

Russell E. Groff, Editor

### This Month's Book Review

There have been many books on Vegetable dyeing in the past several years, but this latest one I've seen is one that I think is very outstanding. It is entitled "NATURE'S COLORS, DYES FROM PLANTS," and was written by Ida Grae. There are several reasons why I like this book very much. One of the main reasons is that the recipes have been scaled down so that the average person can do it in their home with a minimum amount of work, and with clear concise directions before them. Also, you don't have to have a large amount of over size equipment, and a surplus of dye when one is finished.

There are a series of eight pages in the center of the book with 41 color photographs of the materials, the techniques, the plants, and finished products being shown. Besides this, there is over another 40 black and white photographs and more than 40 drawings of plants, and illustrations of historical interest.

The historical background of dyeing is explained; there are explanations for the various dyeing processes, and the listing of the supplies needed are also given.

I was also impressed with the wide variety of dyestuffs that Ida Grae has experimented with. Some of her experiments were with various foods, with wildflowers and weeds, with trees such as eucalyptus and manzanita and others.

Recipes for 268 different colors are given in this book, and you can see what a lot of research went into this work. Besides this, ideas for creating your own dye recipes are also included; a section on how to make cosmetics from plants; sources are given for chemicals necessary, for the fleece, plants, and other supplies that one might need. A good bibliography, excellent indexes for dye plants and recipes are also some of the features of this outstanding book.

The line drawings of the plants and the black and white photographs are all excellent,

and should help you in recognizing many of the different dyestuffs that are suggested.

This is all the research of Ida Grae, an instructor of dyeing and spinning and primitive weaving at the college of Marin in California. She is the author of "Dressing the Loom" an excellent publication with step-by-step procedures for setting up the loom. In addition to being a weaver, a dyer, and designer, Mrs. Grae is a specialist on ethnic crafts.

TITLE: NATURE'S COLORS, DYES FROM PLANTS

AUTHOR: Ida Grae

PUBLISHER: Macmillan Publishing Co., N.Y.

COST: \$14.95 plus postage and insurance

AVAILABLE: Direct from the publishers or from Robin & Russ Handweavers

### **This Month's Cover Photograph**

From *Convergence*, 74, in San Francisco, comes this picture. I believe this was one of the Navaho Indians who was demonstrating her techniques of weaving the Navaho Rug on the frame loom. I know that constant crowds of weavers were watching with great interest.

The great revival of interest in the weaving of Navaho rugs is due to such demonstrations like this, and also to the excellent publications on this craft that have become available in the past five or six years. There are about eight to 10 publications now available, which seem to be very popular. Some of these are *WORKING WITH THE WOOL*, by Noel Bennett and Tiana Bighorse; *NAVAJO AND HOPI WEAVING TECHNIQUES*, by Mary Pendleton; *NAVAHO WEAVING, ITS TECHNIC AND ITS HISTORY* by Charles Avery Amsden, *SPIDER WOMAN, A STORY OF NAVAJO WEAVERS AND CHANTERS*, by Gladys A. Reichard; *NAVAJO SHEPHERD AND WEAVER*, by Gladys A. Reichard; and others which are too numerous to mention.

### **A Second Book Review**

A book that I think many will find very interesting and well written is the new publication entitled "NAVAJO AND HOPI WEAVING TECHNIQUES," written by Mary Pendleton of Sedona, Arizona.

This book is divided into two major sections, one each for the Navajo and the other

for the Hopi weaving techniques. Each of these major sections has a table of contents, a complete listing of the sources of supply, and very detailed and well illustrated directions for weaving a Navajo rug or one of the Hopi ceremonial sashes.

It is a step-by-step instruction book, and I think each portion is very well organized. The pictures describing each step of these procedures are exceptionally well done, and the directions are so clear and concise that I think they will be easy for everyone to understand.

There is a section on how to build your own Navajo loom, and to make the necessary tools that you need. Another section deals with the warp and the weft threads used, and tells you how they can be spun and plied, and dyed to use for your weaving. Then Mary Pendleton goes into great detail explaining a little about designs and techniques you will use, and then she plans and goes through the step-by-step procedures in weaving a rug from a design she has selected. There are pages after pages of directions for weaving this rug, and they are so well illustrated, that I do not think anyone would have trouble following them, and making their own rug. There is a section on things you should or do need to know before you start to weave such as how to use your batten or how to use your comb, how much tension to use, how to break the warp and weft yarns and how to splice them, and directions for the selvage, as done by the Navajo, and how to finish your rug.

After directions for the rug are given, there is a section for analyzing your rug after you have finished it, and a discussion of the pros and cons of what you have done.

After this section, as a divider between the two main portions of the book, there are a series of 20 color plates with pictures of various Navajo rugs and Hopi sashes, etc.

Next comes the main section on the weaving of the Hopi sashes. It follows the same details as the rug, showing you the loom and equipment you need and tells you how to make them, and continues on into the yarns used, designing, warping, and finally the weaving. This section is also just as clear and concise, and well illustrated as is the section about the Navajo rugs.

I think this is a book you will enjoy, find easy to understand, and if you are interested,  
(Continued on Page 6)

# NINE TEXTURED SILK SQUARES

This interesting silk fabric was so much fun to experiment and design. It is a four harness variation of a huck that we have used as the basis of this fabric.

## THREADING DRAFT:

4	SSSSSS	A A	SSSSSS
3		A	
2	O O O	B B B	C C C C C
1	O O O O	B B B B	C C C C C C

## KEY TO THREADS IN THE WARP

- C — 3 ply natural colored Tussah Silk
- O — 2 ply smooth sand colored Silk
- S — 2 ply smooth, glossy Silk and Rayon
- A — 2 ply chunky buttermilk Silk and Rayon
- B — 2 ply black flecked Silk with wool flecks

## WARP

There are five different threads used in the warp, and all are either all silk or have a silk content.

- S — Fine, glossy white, 2 ply Silk and Rayon
- O — 2 ply sand, English dyed Silk
- A — Buttermilk fluff, a combination of 55% Tussah Silk and 45% Rayon.
- B — 2 ply natural Silk with black wool fleck. 95% Silk, 5% Wool.
- C — 3 ply natural Tussah Silk called Tsing Tussah.

## WEFT

There are five different threads used in the weft, and four of them are the same as in the warp. The same threads that are used and listed below, and then the fifth thread listed below is the new one in the weft.

- S — Fine, glossy white, 2 ply Silk and Rayon
- A — Buttermilk fluff, a combination of 55% Tussah Silk and 45% Rayon.
- B — 2 ply natural Silk with black Wool fleck. 95% Silk, 5% Wool.
- C — 3 ply natural Tussah Silk called Tsing Tussah.
- D — 3 ply spun Silk, natural color. Actually it is 3 ply with each of the three plies having eight strands or a total of 24 silk ends all together in one thread.

## TIE-UP DRAFT:

4	X	X	O	O	X	O
3	X	O	O	X	O	X
2	O	O	X	X	X	O
1	O	X	X	O	O	X
	1	2	3	4	5	6
					A	B

X — tie-up for Counter-balanced looms.  
O — tie-up for Jack-type looms.

## REED USED

An eight dent reed was used, and there is a special sleying of the reed. Here is the sleying as we used it this time.

## SAMPLE:



## SLEYING OF REED

- 1st dent — 2 ends C, 3 ply Tussah Silk
- 2nd dent — 2 ends C, 3 ply Tussah Silk
- 3rd dent — 2 ends C, 3 ply Tussah Silk
- 4th dent — 2 ends C, 3 ply Tussah Silk
- 5th dent — 2 ends C, 3 ply Tussah Silk
- 6th dent — 1 end C, 3 ply Tussah Silk
- 7th dent — 7 ends S, glossy Silk and Rayon
- 8th dent — 2 ends B, black flecked Silk
- 9th dent — 2 ends B, black flecked Silk
- 10th dent — 2 ends B, black flecked Silk
- 11th dent — 1 end B, black flecked Silk
- 12th dent — 1 end A, buttermilk fluff
- 13th dent — 1 end A, buttermilk fluff
- 14th dent — 1 end A, buttermilk fluff
- 15th dent — 2 ends O, 2 ply sand Silk

- 16th dent — 2 ends O, 2 ply sand Silk
- 17th dent — 2 ends O, 2 ply sand Silk
- 18th dent — 1 end O, 2 ply sand Silk
- 19th dent — 7 ends S, glossy Silk and Rayon

END OF ONE SLEYING REPEAT IN THE REED.  
If you follow the threading draft from right to left, you will find that this sleying is for one repeat of the threading draft.

### TREADLING SEQUENCE

There are 30 shots in one complete pattern repeat, and I think that I should write them out, so that there is no confusion.

1. Treadle #2 — Chunky Buttermilk
2. Treadle #6 — Chunky Buttermilk
3. Treadle #2 — Chunky Buttermilk
4. Treadle #5 — Black Flecked Silk
5. Treadle #6 — Black Flecked Silk
6. Treadle #4 — Black Flecked Silk
7. Treadle #2 — Black Flecked Silk
8. Treadle #5 — Black Flecked Silk
9. Treadle #6 — Black Flecked Silk
10. Treadle #4 — Black Flecked Silk
11. Treadle #2 — 2 ends (Silk and Rayon)
12. Treadle #6 — 2 ends (Silk and Rayon)
13. Treadle #2 — 2 ends (Silk and Rayon)
14. Treadle #5 — 3 ply Tsing Tussah Silk
15. Treadle #6 — 3 ply Tsing Tussah Silk
16. Treadle #4 — 3 ply Tsing Tussah Silk
17. Treadle #2 — 3 ply Tsing Tussah Silk
18. Treadle #5 — 3 ply Tsing Tussah Silk
19. Treadle #6 — 3 ply Tsing Tussah Silk
20. Treadle #4 — 3 ply Tsing Tussah Silk
21. Treadle #2 — 2 ends (Silk and Rayon)
22. Treadle #6 — 2 ends (Silk and Rayon)
23. Treadle #2 — 2 ends (Silk and Rayon)
24. Treadle #5 — Heavy 3 ply Spun Silk
25. Treadle #6 — Heavy 3 ply Spun Silk
26. Treadle #4 — Heavy 3 ply Spun Silk
27. Treadle #2 — Heavy 3 ply Spun Silk
28. Treadle #5 — Heavy 3 ply Spun Silk
29. Treadle #6 — Heavy 3 ply Spun Silk
30. Treadle #4 — Heavy 3 ply Spun Silk

END OF ONE COMPLETE PATTERN REPEAT.  
Repeat over and over as desired.

### MORE ABOUT THIS FABRIC

There were a few problems in the weaving of this fabric that I should definitely tell you about.

First, the three ends of chunky buttermilk silk and rayon thread are so heavy that they

tend to cling together slightly when you open your shed. You should definitely open the shed, beat with the shed open, and beat a fairly medium firm beat again to help separate the textured silk and rayon thread.

And the shiny, smooth, two ply silk and rayon combination in the warp tends to loosen up slightly in the weaving. So, while it was not much, we did pick them all up with a lease stick; we slide the lease stick back over the back beam, and down to the warp beam, and put a small weight on it on each end to keep the smooth, glossy silk and rayon taut.

These were the two main problems that were encountered in the weaving.

And, we made a change after we wove our original sample, and even after we set-up the loom. We had the smooth, shiny, glossy silk and rayon thread threaded 4,3,4,3,4,3,4 on the loom. I think it would have worked if we hadn't had an employee who wanted to set-up looms for us and got the warp threads tangled. Anyhow, because of the tangles, the only way I could weave this fabric, was to take these seven threads and put them all together in one heddle. You can either put them all in one heddle, or as is shown in the threading draft, have one thread each in seven heddles, all on harness number four. Either one will work.

There is quite a bit of lint on the floor while you are weaving this one because the chunky buttermilk silk and rayon threads shed slightly in the weaving.

We had very little loss in the width of this fabric, because we had the heavy three ply natural Tsing Tussah Silk as the selvage on both edges, and it worked quite well.

Some of the other things I want to mention about this sample are as follows.

First of all, in the weft, one of the threads is a three ply spun silk thread, which seemed to be quite slick on the bobbin, and this bobbin always seemed to unwind more than the others when one threw the shuttle. We solved this by putting some tissue paper in the bottom of the shuttle, so the bobbin would drag slightly on the tissue paper, and as a result, it did not unwind as fast as it had been doing.

Then, we tried to use the fine, smooth glossy silk and rayon thread singly on the shuttle. However, the heavy textures of thread in the warp and weft, seemed to constantly break this thread when it was used as a weft, and also, it would cling, and result in many loops in the weft. As soon as we doubled this on the bobbin (it made a stronger thread), we had about 95% less trouble than when we used it singly.

Also, we found that once in a while, because of the fact that most of the warp threads are threaded on harnesses one and two, the first harness would tend to come up when it shouldn't, and this would be taken care of by beating again with a medium firm beat, and then harness #1 would go down to its proper position.

Janice told me that when she first started and saw that five threads were used in the weft, and that the treadling sequence was fairly long, that she thought it would take forever to weave. However, she said that after she had learned the sequence and found the treadling much easier than anticipated, that she could do a yard in about one and a half to two hours without any rushing effort.

Also, I feel that changing one of the weft threads to the three ply smooth, glossy spun silk, added a depth or dimension to the fabric that was not there when we had four of the dull threads to one shiny. Thus, we had two shiny threads, and three dull threads in the weft, and it is the contrast between the two that gives a luster and sparkle to the fabric.

Whenever I see this, I keep being reminded of the Kay Geary Workshop I took and did twice, and then the results I saw when I taught a class using her suggestions in her Textile Design Booklets in part one of her three booklets. One of the things she constantly emphasized was the combination of shiny and dull, thick and thin, smooth and textured.

Well, when you read all of this, perhaps you might have second thoughts about weaving such a fabric, but it was fun to design, and according to Janice, it was fun to weave.

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## **MORE ABOUT THE THREADS USED**

In the warp, we used five different threads, and here are more details about same.

S — this fine, natural white, 2 ply is a glossy silk and rayon combination. It comes on about 2 lb. cones, has slightly over 10,000 yards per lb. and the price is \$8.00 per lb. We will wind off 4 oz. spools if anyone is interested.

O — a 2 ply dyed "Sand" spun silk from England, this one came on about 1 lb. cones, and is \$8.00 per lb. It has about 1900 yards per lb.

A — Buttermilk Fluff, or Chunky Buttermilk are two names for this heavy tussah silk and rayon combination. It came to us on 3 lb. cones, has about 800 yards per lb., and it is \$4.80 per lb. when sold by the cone. It is \$2.75 per 1/2 lb. when less than one cone is ordered.

B. — TWO ply tussah silk with black wool flecks. It is 96% silk, 4% wool, and came from England on about 1 lb. cones, and is \$6.00 per lb.

C — Three ply, natural tussah silk, quite heavy also comes on about 1 lb. 4 oz. cones. It is \$6.00 per lb. with about 800 yards per pound.

And, in the weft, we used four of the same threads, but instead of the "sand" spun silk, we have a new heavier spun silk in natural. It is a three ply, and is actually 24 strands, eight each in each of the three plies. It has 1600 yards per pound, comes on cones of 1½ to 2 lbs. each, and is \$9.60 per pound.

## **Second Book Review**

Continued from page 3

I think you would follow the given directions with very few problems.

Another thing about this book is that it is available in both the hardbound or the paperback edition. The hardbound edition is \$9.95 and the paperback edition is \$4.95.

TITLE: NAVAJO AND HOPI WEAVING  
TECHNIQUES

AUTHOR: Mary Pendleton

PUBLISHER: Macmillan Publishing Co., Inc.  
New York, New York

COST: Hardbound edition \$9.95 plus pp.

and paperback edition \$4.95

AVAILABLE: Directly from the publishers or  
from Robin & Russ Handweavers



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### 35 COLORS IN FINE, 8 CUT RAYON CHENILLE

Price is \$4.00 per lb., and these are on cones and tubes of varying size. If you would like 1/2 lb. or more, we will wind it off for you. If you would like samples of these, send us a stamped, self-addressed envelope, and we'll send you samples of these colors, plus an extra sample sheet or two. Robin & Russ, 533 N. Adams St., McMinnville, Oregon 97128.

### SMOOTH, LUSTROUS SPUN SILK IN HEAVY 3 PLY

This has three major plies, but each of these plies is eight strands of silk, so actually, it is 24 ply silk. It is quite smooth, has a sheen (not a high sheen but a medium one, is exceptionally strong, has 1600 yards per lb., and comes on about 1 1/2 lb. cones. Price is \$9.60 per lb. This would be beautiful if dyed and used in card-weaving, and inkle loom weaving, and other such uses. We just finished using it in 14 yards of silk drapes. Robin & Russ, 533 N. Adams St., McMinnville, Oregon 97128.

### BLACK, 8 CUT RAYON CHENILLE

Has about 1,000 yards per lb., and an extra nice quality chenille. In skeins of 6 to 8 oz. each. Price is \$4.00 per lb. Robin & Russ, 533 North Adams St., McMinnville, Oregon 97128.

### AMERICAN DRUM CARDERS

The Canadian one seems to be no longer available in the states, and we now can get the American ones. Price is \$85.00 plus shipping, and we hope now that delivery will be within one to two months. Has been longer in the past, but we are starting to get delivery better on our orders now. Robin & Russ, 533 North Adams St., McMinnville, Oregon 97128.

### BEAUTIFUL, HEAVY IRISH RUG WOOLS

With a jute center core. These are most beautiful but I'm sorry to say, most expensive. They are now \$12.00 per lb., but the color blends are quite exciting. Takes 4 to 6 lbs. usually for a rug from three feet wide to five or six feet long. You can stretch it out, if you use a finer rug wool, like the English tapestry wool in between each shot of the Irish Heavy Rug Wool. Robin & Russ, 533 North Adams St., McMinnville, Ore. 97128.

### SPINNING OIL FOR HANDSPINNING

Also, this is helpful in the carding, as well as the spinning. This is a water soluble oil which is used by Paula Simmons and her spinning with her black sheep wool. She recommends it, and supplies us with it. Price is \$1.50 per plastic bottle. Robin & Russ, 533 N. Adams St., McMinnville, Oregon 97128.

### 2 PLY COLORED JUTE

This is quite a heavy, 2 ply jute, and it is available in 18 colors. It comes on 4 oz. tubes of about 75 yards each, and is \$1.50 per 4 oz. tubes. Probably our most popular macrame thread, it can also be used in many types of weaving, such as rug warp, as warp and weft in patio mats, material for handbags, etc. Robin & Russ, 533 N. Adams St., McMinnville, Oregon 97128.

### 10/2 NATURAL AND BLEACHED LINEN

From Ireland, this is a beautiful quality linen. It comes on approximately 1 lb., 1 oz. tubes. It has 1500 yards per lb. Is an excellent warp and is used quite often at 15 ends per inch for table mats, for table cloths, and for many other uses. Natural is \$6.00 per lb., and bleached white is \$6.80 per lb. Robin & Russ, 533 North Adams St., McMinnville, Oregon 97128.

### 45 COLORS IN 2 PLY ENGLISH TAPESTRY OR RUG WOOL

This comes on approximately 4 oz. tubes, has about 175 yards per tube, or 700 yards per lb. The colors are beautiful. Has been very popular for rugs, handbags, for use in wall hangings, and has a multitude of other uses. We have a shipment of 25 lbs. of each of the 45 colors on the way to us, and also we have a stock of about 43 of the colors still on hand. Robin & Russ, 533 N. Adams St., McMinnville, Oregon 97128.

### 8/2 SPUN RAYON IN ABOUT 15 COLORS

We purchased a small lot of this, as it is excellent for warp and weft. It has 3360 yards per lb., the colors are nice, and the thread is easy to handle as warp or weft. Free sample sheet upon request. Price is reasonable also at \$3.20 per lb. Robin & Russ, 533 North Adams St., McMinnville, Oregon 97128.

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