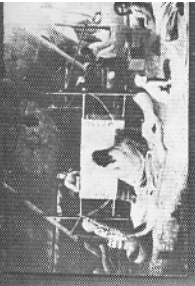
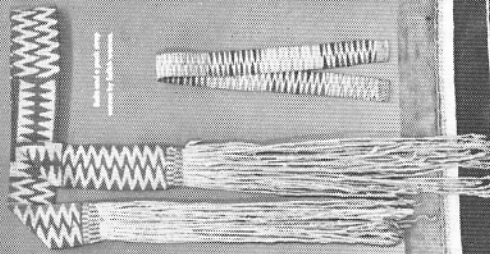


WOMEN WERE SKILLFUL WEAVERS

THE CHILKAT BLANKET OF MOUNTAIN-GOAT WOOL

Chilkat women of the Tlingit tribe weave fine blankets of mountain-goat wool. The white is undyed yarn. Black was obtained by dyeing the wool in a solution of urine and hawthorn bark, blue from copper, and yellow from a lichen. Warp strands, having a core of cedar-bark twine, hang from a horizontal bar

with their lower ends tied in bladder bags to keep them clean. Each warp strand is inserted by hand. Half a year was often required to weave a blanket. Chilkat weavers treated their blankets, but only wealthy Indians could afford them. They were sacred for ceremonial wear and for burial robes.

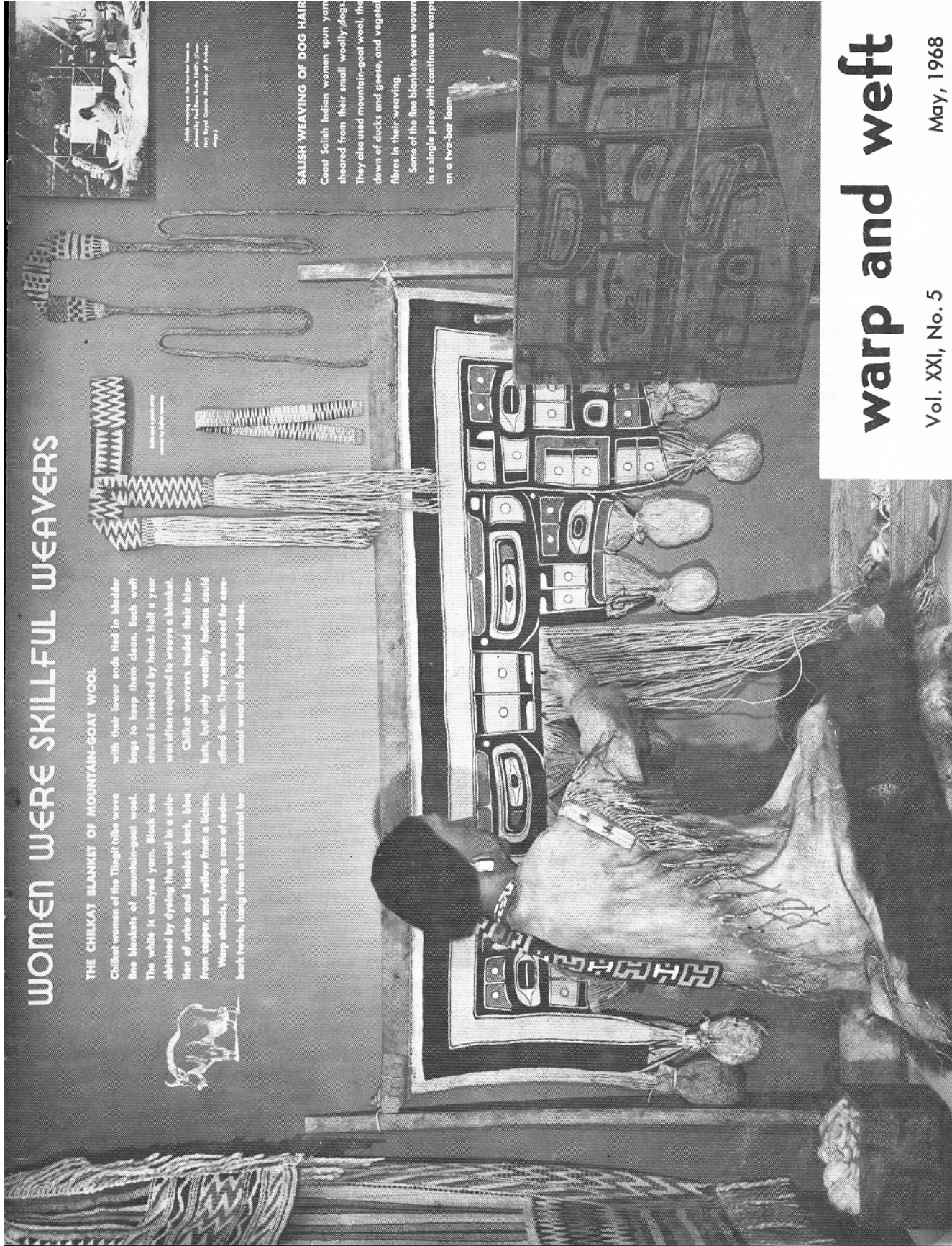


Wool spinning on the handloom in the Northwest, circa 1900. (Courtesy of the Royal Ontario Museum of Anthropology)

SALISH WEAVING OF DOG HAIR

Coast Salish Indian women spun yarn sheared from their small woolly dogs. They also used mountain-goat wool, the down of ducks and geese, and vegetable fibres in their weaving.

Some of the fine blankets were woven in a single piece with continuous warps on a two-bar loom



warp and weft

Vol. XXI, No. 5

May, 1968

warp and weft

Published monthly (except July and August) by Robin & Russ Handweavers, 533 North Adams Street, McMinnville, Oregon 97128

Subscription: \$4.50 per year.

Back Issues: 45c each plus 6c postage.

Editor: Russell E. Groff,

Assistant Editor: Robin Groff

Vol. XXI, No. 5

May, 1968

A Word from the Editor:

Another month has swiftly gone by, and still behind in our work is the story here. Of course, we'd rather be behind and lots of work to do, than be caught up with nothing much to do.

It has been a busy month too, as we have made up and started mailing some 2,000 sample sheets, and there have been some interesting yarns come in that have to be packed, and stored in our yarn bins, and put away as neatly as possible.

We've had some interesting yarns come in this past month. Among these was 100 lbs. of natural spun viscose yarn, about 300 lbs. of natural cotton boucle with a metallic twist, and 50 lbs. of rayon frill with a silver metallic twist, and several small lots of novelties which are most interesting. It keeps us busy putting these items away, and keeping the yarn bins straight and neat.

Our adult education weaving class is a small one, but it is a busy one, and most of the students are about finished with their first project and ready to go on to their second one.

Janice, our 15 year old, is making plans for summer vacation now, and hopes to go to camp, and take her horse with her, so that she can train her horse more in riding, jumping, etc.

Robin and I have made tentative plans to spend 7 days in July in an isolated lake (Lake O'Hara) in the Canadian Rockies, and this is a spot that we know that we will enjoy if we get to go.

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We are trying to get caught up enough so that we can get our two bulletins out on schedule, but it looks as though we will be a little late again this time, and we hope to get back on schedule on these for the May issue.

Robin is enjoying working out in the yard and starting spring gardening. She was planting tomato seeds yesterday and others also.

And your editor looks forward to loafing more than anything, and so I do go out and play a round of golf early on Saturday and Sunday mornings, and also bowls once a week in a men's bowling league.

Time to get back to this month's sample.

Russell E. Groff, *Editor*

Weaving a Chilkat Blanket This Month's Cover Photograph

The cover photograph this month is a picture of a Tlingit Indian Weaver working on a Chilkat Blanket of Mountain-Goat Wool.

Our weavers guild, the Portland Handweavers, had a program in February by Mrs. Doris Kyber-Gruber, who is one of the few living persons who knows the art of weaving as the Chilkat Indians did. As a result of this most inspiring program, I want to copy from my notes, what Mrs. Kyber-Gruber told us that evening.

First of all, the Chilkat Blanket is a Nobility Robe. There are only 2 or 3 weavers left today who know this entire process of weaving one of these blankets.

This blanket is considered one of the finest of primitive weavings in the world and it is a piece of weaving that is done with no shed on the loom, and all of the work is done with the fingers.

The crests woven on these blankets are usually Geometric in form, Totemic in Character, and about 10 different stitches are used. The apron of this type of weaving is worn by the Shaman or Medicine Man. Chilkat blankets are very rare and sell for about \$4,000 to \$7,000 — but they are highly prized possessions and almost never sold.

In 1885, I believe it was the explorer Powell who reported that these blankets were very scarce even then, and in 1907 it was thought that there were about 15 remaining weavers who knew how to make these blankets, and now today, there are just 2 to 3 remaining persons who know how to do this.

The loom on which these blankets are woven consists of 2 uprights and one cross piece. Seine twine is used for warp now, but in the older days it was a cedar-bark which had been boiled for about three days, and then was splintered out so it could be spun. The cedar-bark used is from the Prince of Wales Island, and is a Yellow Cedar. Two strands of this cedar bark are coated with mountain goat hair, and then spun together.

The warp on the loom is a free-hanging warp, and the little bags that you see in the picture hanging down from the warp are bladder bags, used to hold the rest of the yarn for that particular area of the weaving.

In these Indian tribes, there are usually two major groups. In this particular tribe which Mrs. Kyber-Gruber is affiliated with, the 2 groups of the tribe are the Ravens and the Eagles. One group of the tribe has members who are the designers for the patterns for these blankets and the other part of the tribe has the weaver. The weaver has to purchase a PATTERN-BOARD from a person in the opposite group of the tribe. Thus if the weaver were a raven, she would purchase the pattern board from the member of the eagle group. These pattern-boards are made on a cedar board, with the design in black. The patterns are very precise, and sometimes the pattern-maker will even use a template. Men do the designing of these patterns. Sometimes the weaver will have to pay up to \$500.00 for a pattern board.

The wool used in the weaving of these blankets is from the MOUNTAIN-GOAT. The only part of the wool from this goat that is used is the fine, downy, undercoat. It will take this fine wool from 5 to 7 goats to have enough to weave just one blanket. In other words, the guard hairs of the goat are pulled, and the fine down that is left is what the yarn is spun from.

The yarn is hand-spun and is all done by the hand and thigh spinning method. A Z twist is used in the spinning of this goat wool, and it has very little grease or lanolin in this wool.

The warp is always white, and the weft is colored. There are 5 different sizes of yarns used in these blankets.

More about the cedar bark used for warp, is the fact that this bark has to be taken from the yellow cedar tree when the sap is up. They cut off from the tree, a strip about 8" wide, and 20 feet long. This is then boiled to get the fibers to spin the warp. They never take too much bark off of one cedar tree so that the tree will die, but just take one piece off of each tree they decide upon.

The major colors used in these blankets are blue-green, yellow, white, and black. The Hudson Bay Company did bring in a little red, and this is used slightly, and sometimes not at all.

A moss is used to dye the yarn yellow. The mordant used is from the urine of an Athabasca baby.

For the blue-green color, an oxidized copper usually is used as the dye, and this of course comes from copper ore.

The black dye for this yarn was from several sources. Sometimes the blackberries were used, sometimes charcoal, sometimes silver mud, and sometimes the inner bark of hemlock was used. Also, once in a while one of the other colors would be dipped in the blue-green to get black.

These blankets are all five sided. The Indians sometimes use a measuring stick to be sure they have a five sided warp or enough warp for the five sides. Also, on these blankets, the warp must never show through the weft. Black is the main and essential color of the design, and this is broken up by designs in the other colors. The beater used in weaving these is the fingers. The weft is pushed upward, and the blankets are woven from the top down. Sometimes there are as many as 28 different border ties used. Sometimes an

Checkerboard

This is a beautiful fabric which was designed for upholstery. It is woven of Ramie, and the beautiful English Rya type rug yarn.

THREADING DRAFT:

							Selv.
4		G	G		R	R	X
3	L	L		B	B		X
2		G	G		R	R	X
1	L	L		B	B		X

KEY TO THREADS IN THREADING DRAFT:

L – Citron Lemon, 20/2 Merc. Ramie.
G – Gold, Antique, 20/2 Merc. Ramie
R – Rusty Brown, 16/2 Swiss Ramie.
B – Brick Red, 16/2 Swiss Ramie.

WARP THREADS USED:

There were 4 different threads used in the warp. First was the 20/2 Mercerized Ramie in Citron Lemon. Second was the 20/2 Mercerized Ramie in Antique Gold. Third was the 16/2 Swiss Ramie in Rusty Brown, and fourth was the 16/2 Ramie, Brick Red.

WEFT THREADS USED:

In the weft, there were four different threads used. For pattern threads, we used 2 colors in the English rug wool. One was color No. 108, which we call Light Corn. The other was color No. 174 which is called Brick Dust. For the two tabby threads, we used the size 20/2 mercerized Ramie in the Antique Gold color and the other one was the Citron Lemon color.

REED USED:

A 12 dent reed was used, and it was double sleyed, 2 ends per dent, or 24 threads per inch.

TREADLING SEQUENCE:

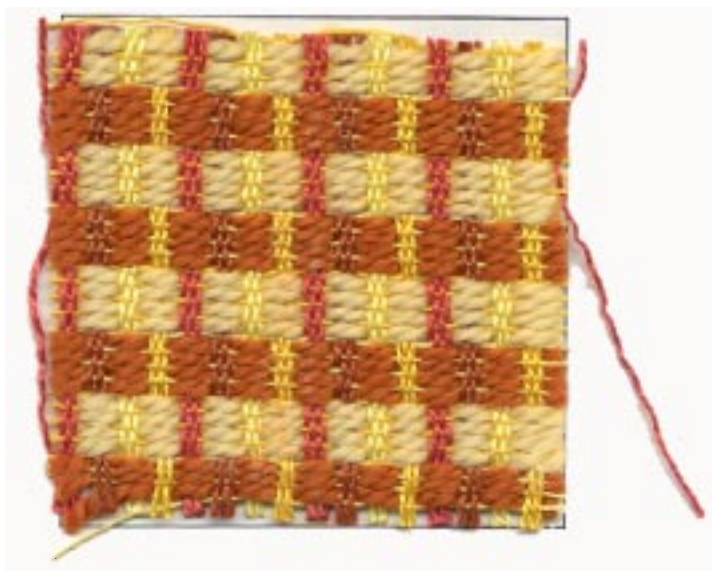
There are a total of 16 shots in one com-

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.

SAMPLE:



plete pattern repeat, and the sequence is listed as follows:

Treadle No. 5 – Color 108, Lt. Corn Wool
Treadle No. 1 – 20/2 Antique Gold Ramie
Treadle No. 5 – Color 108, Lt. Corn wool
Treadle No. 3 – 20/2 Antique Gold Ramie
Treadle No. 5 – Color 108, Lt. Corn wool
Treadle No. 1 – 20/2 Antique Gold Ramie
Treadle No. 5 – Color 108, Lt. Corn wool
Treadle No. 3 – 20/2 Antique Gold Ramie
Treadle No. 6 – Color 174, Brick Dust wool
Treadle No. 1 – 20/2 Citron Lemon Ramie
Treadle No. 6 – Color 174, Brick Dust wool
Treadle No. 3 – 20/2 Citron Lemon Ramie
Treadle No. 6 – Color 174, Brick Dust wool
Treadle No. 1 – 20/2 Citron Lemon Ramie
Treadle No. 6 – Color 174, Brick Dust wool
Treadle No. 3 – 20/2 Citron Lemon Ramie

End of one complete pattern repeat. Repeat over and over as desired.

IDEA FOR THIS SAMPLE:

Mr. Elmer Hickman has featured several similar patterns in finer yarns in his folios from time to time. We decided to try it and use it for upholstery, and use the yarn we had available, and this is the result.

MORE ABOUT THIS SAMPLE:

We are delighted with this sample this month for several different reasons. One of these is that we are importing a beautiful line of RYAGARN, a rug yarn from England, and we have been anxious to show that it can be used for other items than for rugs. I feel that this is quite a successful use for this rug yarn, and we feel that it would make wonderful upholstery, be quite contemporary in effect, and fit in with many, many color schemes in our homes of today.

I do not not know the yardage of this RYAGARN, or English rug wool yet, but it is primarily manufactured in England for export to Sweden. However, we were able to obtain an Agency for it, and are now importing it here in the United States. However, because 95 per cent of the production of this yarn is sent to Sweden, it is put-up in Kilograms or 1,000 gram packages. This is supposed to be 2 and 2/10's lbs., but we find it to be 2 lbs. 2 oz. per package. About 5 skeins of this do make a pound of yarn or thereabouts. This yarn is a beautiful worsted spun, rug wool, which is 100 per cent wool. It has been moth-proofed, which is a very desirable quality, and also the part that we like so much is that it is available in 41 standard colors, which are very, very beautiful colors. We have imported new stocks of some of these colors several times, and we are being continually amazed at how close the colors are, and we find it very hard to tell the difference in color from one dye lot to another. I also felt that this yarn could be used for embroidery, and for tapestry work of all kinds, and at present, we are trying to keep in stock 3 kilograms of a color at a time. If we are out of a color, we find that delivery of new stock takes about four to six weeks, and that the orders are shipped the day they are received in England, so we are most happy with this yarn. ANOTHER

THING THAT WE LIKE ABOUT THIS YARN IS THAT WE GET IT AT A REASONABLE PRICE OF \$4.80 per lb. Most of the similar yarns of this quality are costing from \$6.00 to \$8.00 per lb., plus shipping and duty from the Scandinavian countries. The similar quality in the Persian Rug wool is about \$8.00 per lb. plus shipping.

Next, we were delighted to be able to use Ramie with this rug yarn. The Ramie colors, we have been able to get constantly for 10 years in the 16/2 size, and we have the 20/2 size dyed for us in these colors that we have used in this sample. The Ramie costs less than does a linen, and we feel it is easier to handle, and thus, because of its lesser cost, and the fact that it is excellent for upholstery fabric because of its long-wearing qualities, we have incorporated the two fibers in this month's sample.

In the sample, we want to tell you to be sure to use a firm, even, double beat. Be sure to definitely beat with the shed open, and then change to the next shed and beat again, before throwing the shuttle.

As you do have 4 colors in the weft, and do have to use 4 shuttles, it is a little slower weaving than many fabrics, but this is more than offset by the beauty of the fabric. I wish that I had a chance to experiment more with other colors in the ramie and wool, but time does not allow us to do this.

We have just 16 colors in the 16/2 Ramie which we import from Switzerland. However, we have been told that in the future, we can expect to have several new colors added to the 16 that are available at present.

I haven't figured it out yet, but I'm sure that this fabric will cost a little more than usual, but with the durability and beauty, it is well worth this increase in cost.

COST OF THE THREADS USED IN THIS SAMPLE:

The English rug wool comes in 41 beautiful colors, and about 5 skeins of it weigh 1 lb. and 1 oz. The price is \$4.80 per lb., so 1 lb. and 1 oz. of a color would be \$5.10

The 16/2 Ramie from Switzerland is \$5.00 per lb., the same price that it has been for 10 years. The 20/2 mercerized ramie in colors has gone up slightly, and is now \$5.40 per lb. The 16/2 has 2400 yards per lb., the same as a 16/2 linen, and the 20/2 mercerized ramie has 3,000 yards per lb., the same as a 20/2 linen. Both of these threads are available in 4 oz. tubes. The 4 oz. tube of 16/2 ramie has 600 yards, and is \$1.25 per 4 oz. tube. The 20/2 mercerized ramie has 750 yards per 4 oz. tube and is priced at \$1.35 per 4 oz. tube.

COST OF THIS FABRIC:

We had an 11 yard warp, 40" wide, and from this length of warp, we were able to weave slightly over 9 yards of this fabric. It took 1 lb. 2 oz. of each of the 2 colors of 16/2 ramie for warp, and it took 1 lb. of each of the 2 colors in the mercerized 20/2 ramie. Thus the total warp cost for 11 yards, 40" wide was \$22.05 or the warp cost per yard was \$2.00.

In the 9 yards of finished weft, we used 13 oz. of each of the 2 colors in the 20/2 mercerized ramie. We also used 3 lbs. 11 oz. each of the color No. 108, Light Corn English rug wool, and 3 lbs. 11 oz. of the color No. 174, Brick Dust wool. Thus, the total weft cost is \$44.16 and the cost per yard was \$4.97 for the weft.

WARP COST PER YARD, 40" width \$2.00
 WEFT COST PER YARD..... \$4.97
 FABRIC COST PER YARD \$6.97

"Weaving a Chilkat Blanket"

Continued from Page 3

added fringe is added to the blanket, and it is not goat wool. And then the fur of a sea-otter is sometimes added to the top.

At one time, leggings were woven, but they have not been found for many, many years now. Because of the missionaries, the weaving gradually died out. They tried to stop all of the Indian customs and tried to force Christian ideas and customs on the Indians.

One of the weavers who can still do this
Page 6

and who is a full-blood Chilkat Indian is Mrs. William Sparks. She also was at the meeting which I attended, and she told us that she had made a great effort to revive all of the Indian customs that she can, and that now the church has revised its stand about this.

She was a most fascinating person to visit with, and it is from Mrs. Sparks' effort that this custom is one of the things that she is trying to get the Indians to revive.

One deterrent to this, is that the fish and game commission has stopped the hunting of the mountain goats, and if I remember correctly (not sure about this), but each tribe is allowed to hunt only 2 mountain goats a year now.

You can see what fascinating program this was, and my only wish is that you could have been there to enjoy it as much as about 100 members of the Portland Handweavers Guild did.

My thanks goes to Mrs. Kyber-Gruber for the use of her photograph which shows the blanket in progress, the pattern board, the bladder bags, and the mountain-goat wool being used.

Wasn't this a fascinating bit of weaving, or a "by-way of Hand Weaving."

Photograph — Courtesy of Smithsonian
 Institute, Museum of Natural
 History.

**A Weavers' Conference
 In Michigan in June**

The Michigan League of Handweavers has an interesting workshop and conference coming up June 14, 15, and 16, at the DeWaters Art Center, Flint, Michigan. The theme of the conference is "Artistry and Weaving Horizons." Speakers are to be Jack Lenor Larson, Robert Kidd, Tonya Rhodes. There will be many types of exhibits such as historical, inspirational, the best of Michigan, etc. Five different demonstrations are being planned, and there will be a tea and fashion show also. The conference coordinator is Mrs. Eleanor Woolfe, Mott Adult Education, 902 E. 6th St., Flint, Michigan 48503.

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We have imported these from a shop we visited in Switzerland. Two styles available, and both are 50 per cent linen, 50 per cent cotton. Cotton warp and linen weft. Those without a top bib are woven on a jacquard loom with designs of chickens or fish on them. Price is \$6.95, postage prepaid for these, and they are in color combinations with one color for warp, and a slight variation of the same color for weft. The 2nd style is a form-fitting style with a top bib. You see these worn in many, many shops in Switzerland. Have straps over shoulders that cross over in back and tie to sides of aprons. \$7.95 each postpaid. Robin & Russ, 533 North Adams St., McMinnville, Oregon 97128.

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CREATIVE DESIGN IN WALL HANGINGS, by Lili Blumineau is available at \$6.95 plus 18c postage. An outstanding book. Should be a part of any person's library if they are interested in weaving tapestry or wall hangings. Robin & Russ, 533 North Adams St., McMinnville, Ore. 97128.

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