# Gathering Summary: Making Cloth, March 13, 2010

## A Presentation by the Alpine Spinning & Weaving Guild

Summary by Catherine Haug

[Urls for all links shown in References section].

## Introduction and Overview

*(photo of Suffolk sheep from Wikipedia)*

### Wool and animal fibers

An overview of the process provided by Judie Overbeek:

1. Clean the wool (demonstrated by Mary Warner);
2. Process the wool by combing or carding (combs, cards and drum carder demonstrated by Julie Valentine);
3. Spin the wool (drop spindle and spinning wheel demonstrated by Irma Jean Hannon and Irene Houston);
4. Ply the wool (if desired);
5. Weave the wool, or use other methods such as knitting and crocheting (weaving demonstrated by Glenda Smith and Judie Overbeek);
6. At any point in the process, the wool can be dyed. But if you want to blend colors, you must dye before spinning or plying.

Animals that produce wool (not a complete list):

- Sheep: Shetland, Suffolk, Merino, Coopworth are common breeds. Primitive breeds shed naturally, a process called ruing. This is the best time to take their wool. Other breeds must be sheared, 1 - 2 times a year, depending on breed
- Llama; costs about $25 to shear a llama; if interested, contact Going to the Sun Fiber Mill to coordinate (see link below).
- Bison
- Yak
- Alpaca
- Camel

Going to the Sun Fiber Mill north of Kalispell sells processed wool and will process properly cleaned wool for you.

### Flax and plant fibers

*(photo of flax in bloom, from Wikipedia)*

Sylvia Callantine gave a presentation on growing, harvesting, and extracting the fibers from stalks, then spinning them into yarn. She also demonstrated the spinning of flax using a wheel with distaff dressed with flax fibers. She recommends *Flax from Seed to Fiber* by Mary A. Chase in *Spin Off Magazine*.

## Open Floor: Making Wool Thread/Yarn

Attendees were then free to get hands-on experience with each of the processes, to question the demonstrator, and to inspect several completed garments & accessories.

### Gather and Clean the Wool Fibers, by Mary Warner

For most woolly animals, the wool is not shed naturally, and needs to be sheared once or twice a year depending on the breed. Natural shedding of hair sheep is called rooing, and the shed hair/fleece is called "roo." See Ask the Bellwether for more.

Gather the sheared or shed fleece and wash it. Mary suggests washing in a machine with hot hot water. Use Dawn dishwashing detergent. Let it soak but do not use the agitator. Then use the spin cycle to remove most of the water. You may need to repeat. Don't squeeze/wring or the fleece will felt. See *Joy of Hand Spinning website* for more on How to Wash a Fleece and How to Select a Fleece.

Dawn dishwashing detergent is excellent at removing any grease on the wool, including lanolin, which is what makes the wool water resistant. So if you want to retain some of the lanolin, you should use a good soap rather than detergent.

[Cat's note: detergents cannot be made in your kitchen. They require industrial facilities to apply extreme heat and pressure to create the detergent. In a low-energy situation, homemade soap would be preferred. Kev L. says not to use a washing machine if you are on a septic system, as all the lanolin will wreak havoc with the septic.]

See Sheep 101 for more information on wool vs hair sheep.

### Carding or Combing to Process the Cleaned Wool, by Julie Valentine

(Hand and Drum Carder photos from Wikipedia)

Carding and combing are methods used to further clean the wool and remove fibers of lesser quality. Carding produces a more rough preparation; combing produces the finest preparation. The end product, or "roving," from carding is called "batt," and that of combing is called "top."

***Brush carding*** involves the use of two brush-like devices. You apply a bit of cleaned fleece to one card, then brush the other card over, brushing back and forth from one card to the other. See *Joy of Hand Spinning* for videos on hand carding.

***Drum carding*** involves two brush drum cylinders that roll against each other as the larger drum is turned. You set a bit of cleaned fleece on the entry platform, then turn the crank; the fleece is picked up by the smaller drum and the transfered to the larger drum. When sufficient fleece has been carded onto the larger drum, you remove it by inserting a rod under the fleece (the drum has a special indented area to accommodate this rod), then pull up until the fleece breaks apart. Then pull off the drum. See *Joy of Hand Spinning* for a video of using a drum carder.

***Combing*** is similar to hand carding, except that two sharp, nail-like combs, are used instead of the cards. After the fleece is combed, it is pulled through a diz to make "top." See *Joy of Hand Spinning* for videos on use of combs and using a diz.

## Spinning Wool, by Irma Jean Hannon and Irene Houston

Two spinning methods were demonstrated: Drop spinning using a Turkish drop spindle, and a Spinning wheel made locally by Charlie Shaw.

The end result of spinning is a single-ply yarn. After it is spun, you can ply multiple single-plys together to get thicker yarn, and also to get different color effects. Double-ply and triple-ply are the most common.

**Drop Spindles:**

*(Photo of wooden drop spindle from Wikipedia)*

Irma Jean demonstrated drop spindles, with both her Turkish drop spindle and a simple spindle made from a CD/DVD disc and wood dowel.

The CD spindle is made by inserting a grommet into the hole in the center of the disc. Then a wood dowel is inserted into the grommet. A screw-hook is screwed into the other end of the dowel, to guide the fleece onto the spindle.

Using a spindle: first attach the roving to the dowel near the disc with a knot. Then twist a length of roving around and up the dowel, then through the hook at the top. Start the disc to spinning (takes a while to get the hang of this), while you keep an even tension on the roving, so that it is spun between your hand and the spindle. Your hand holding the roving will move farther from your body as you spin; when you can't reach any further, stop. Transfer spun yarn to your fingers in a butterfly fashion. Then transfer from the butterfly to the dowel, pushing down toward the disc. Repeat.

For more, and videos, see Joy of *Hand Spinning* website:

- How to Make a Drop Spindle
- Types of Drop Spindles
- Making Yarn with a Drop Spindle

**Spinning Wheel**:

*(Photo of Irish spinning wheel from Wikipedia)*

Irene demonstrated spinning on her handmade wheel.

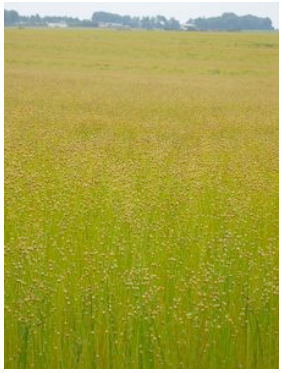
The device is operated by the feet on a treadle mechanism, which turns the big wheel. Cord is strung, like a belt, from the big wheel to the spindle in two turns which overlap each other differently depending on whether the wheel is turned to the left or to the right. The two ends of the cord are stitched together to make the join strong.

With each press of the foot, you pull from the roving, your fingers moving toward the spindle. This coordination between foot and hand is important.

For more on spinning wheels, including videos, see *Joy of Hand Spinning* website:

## Flax: From Sowing to Spinning, by Sylvia Callantine

*(Photo of yellowing field of flax from Wikipedia)*



Flax is a cold-hardy plant that will grow here. A tall & straight plant, it grows to about hip height (40 inches or so), with blue flowers. Every region grows a different shade of beige linen.

***Sowing*:** Broadcast seeds fairly thick, then rake in. Use no nitrogen fertilizer as it weakens the fiber. But organic fertilizers are good.

***Harvesting***: It takes about 90 days from sowing to harvest. You want to harvest when the plant is just turning yellow brown, by pulling by the root. At this time, the flowers have turned to mature seeds.

***Drying:*** Once harvested, the flax is dried in the field, by laying on the ground or stacking into teepee-like shocks.

***Removing the seeds***: A process of "rippling" removes the seeds without damaging the fibers in the stalk, by pulling the stalks through a rippling comb.

***Freeing the fibers***: A process of "retting" frees the fibers in the stalk from the stalk, by rotting away the outer hull. This wetting can be accomplished naturally by laying out the stalks to be exposed to dew and rain; or by submerging the stalks in water. Whichever method is used, it smells bad.

At this point, the fibers can be bundled and stored, or they can be broken.

***Breaking the fibers***: A wooden brake is used to bend the stalk and break the outer hull off. Work with one bundle of stalks at a time.

***Separate the longer fibers from the shorter toe***: This is called "hackling;" the fibers are pulled through a bed of pins or nails.

***Spinning***: Spinning adds twist to the fibers, which strengthens them.

A long distaff to which the line flax (original bundle of long fibers) are tied, is attached to a spinning wheel, or. can be hand-held for use with drop spindles.

The roving (shorter, cut flax fibers), & 'toe" (gnarled clumps of fiber) can also be spun.

Wet vs dry spinning: Wet allows for smoothing down the ends of the fibers, and makes a stronger ply. The fibers are wet with the fingers before going through the spinner.

***Bleaching and Dying***: Bleaching should not be done until after the fibers have been spun and woven, because the bleach weakens the fiber. Flax dyes beautifully.

***Working with the spun fiber***: Plant fibers are not elastic like animal fibers; this must be taken into account when making cloth by weaving, knitting, etc.

Other common plant fibers: hemp, bamboo, ramie, cotton.

See also:

The Story of How Linen is Grown from Chest of Books

All-Fiber Arts: Processing Flax into Yarn

## Looms

*(Photo of a Danish Floor Loom from Wikipedia)*

Judie Overbeek gave a short talk about the different kinds of looms for weaving cloth. They range from the very simple to very complex, and start at around $500 for a table loom.

### Portable Table Looms (used for the demonstration)

The loom frame is made of wood, with wooden harnesses which hold metal heddles.

The warp threads/yarns are strung through heddles and secured to rollers in front and in back of the loom; as the weaving progresses, the work is rolled onto the front roller.

The weft is woven back and forth through the shed (the separation of warp, up and down). On these table looms, the shed is separated mechanically by the use of harnesses.

The harnesses are attached to levers on top of a table loom (or to pedals near the floor of a floor loom). The levers of these rising-shed looms raise the attached harnesses to create the shed. (For bottom-shed looms, the levers lower the attached harnesses; for countermarch looms, the levers raise some and lower other harnesses).

### Other Loom Types

Looms come in a variety of constructions: table, floor, back strap, warp weighted, warp-facing such as the inkle, and hand looms such as Navajo or tapestry looms.

Table & floor looms create the shed by use of levers on top of a table loom, or pedals near the floor of a floor loom. They come with 2-, 4- or 8-harnesses (or more), and range between 18” and 60” or more. Judie favors a 24” loom for garments.

- Some table looms fold up for travel.
- Rug looms are of heavy and wide construction; fabric looms are made for a lighter touch.
- 2-harness looms only do plain weave; 4-harness can do twills, overshot, patterns, and more.
- The shed may be formed mechanically as the table loom described above, or by hand, weaving the weft over/under the warps.

Note: Fabric yardage with bulky yarns is limited, because of space limitations on loom.

## Other Considerations

***Lighting:*** Good ambient, overhead lighting (fluorescent saves energy) plus an Ott light at the work area. Full spectrum bulbs are best.

***Seating***: You don't need back support, as you are always leaning forward while working at the loom. But a comfortable seat is recommended. For wide looms, a long seat, such as a bench accommodates the need to move from one end of the work to the other.

It's also important to stand up to stretch periodically.

***Space***: Most floor and table looms are square. A 24" floor loom has additional 10" for the frame body, so is about 34" square. You should leave about 30" of space all around the loom for access, so minimum required space is 8' square.

Hand looms, such as Navajo and Tapestry, are mostly vertical so need less horizontal space.

Space should also be allowed for storage of fibers, yarn and fabric. There's never enough space.

## The Guild

Alpine Spinning & Weaving Guild started in 1963, and currently has about 45 members, with 18 or so active.

There are three meetings each month, in the basement of Bethlehem Lutheran Church on Main St. in Kalispell:

- Spinning meets the 1st Wednesday
- Weaving meets the 2nd Wednesday
- The whole group meets the 3rd Wednesday

They do not offer formal classes, but they do mentor, and individual members may offer classes at home: Spinning can accommodate 5 - 6 people at a time; Weaving is more limited.

If you want to learn, the first step is to come to a meeting and then join the guild.

To join, contact [email addresses disguised for security]:

- Vicky Faulkner [vickiann(at)centurytel.net],
- Sylvia Smith [spinner92892(at)hotmail.com], or
- Julie Valentine [jvalentine(at)montanasky.com].

Outreach - demonstrations like the one for ESP - is a major activity for the guild, and their main recruiting tool for new membership.

## Stills & Video Clips from the Event

Flip video still-shots from the event, by Sally Janover:

- Drum Carder (sharing.theflip.com/session/0e55cec59d0572dea56ddee226ec3b24/video/12029287)

- Warping a table loom - 1 (sharing.theflip.com/session/0e55cec59d0572dea56ddee226ec3b24/video/12029313)
- Warping a table loom - 2 (sharing.theflip.com/session/0e55cec59d0572dea56ddee226ec3b24/video/12029367)
- Shed & Shuttle: Weaving on table loom (sharing.theflip.com/session/0e55cec59d0572dea56ddee226ec3b24/video/12029335)
- Spinning with spinning wheel (sharing.theflip.com/session/0e55cec59d0572dea56ddee226ec3b24/video/12029353)
- "Critter to Sweater," an illustrative book (sharing.theflip.com/session/0e55cec59d0572dea56ddee226ec3b24/video/12029380)
- Flax (Linen) fiber, yarn and knitting project (sharing.theflip.com/session/0e55cec59d0572dea56ddee226ec3b24/video/12029399)
- Knitted items, from hand-spun yarns (sharing.theflip.com/session/0e55cec59d0572dea56ddee226ec3b24/video/12029415)

## Sources & References

### Magazines


- Spin Off (www.spinoffmagazine.com/) for spinning
  *Flax from Seed to Fiber* by Mary A. Chase in *Spin Off Magazine*, 1992, Su92, pages 62 - 69)
- Handwoven (www.interweave.com/weave/handwoven_magazine/) for weaving
- Fiberarts (www.fiberarts.com/) for fiber arts


### Web


- All-Fiber Arts: Processing Flax into Yarn: www.allfiberarts.com/library/aa97/aa072397.htm
- Ask the Bellwether: askthebellwether.blogspot.com/2007/02/do-soay-sheep-really-shed-their-wool.html
- Going to the Sun Fiber Mill: www.gttsfibermill.com/
- Joy of Spinning www.joyofhandspinning.com
- Ott Light: www.ottlite.com
- Sheep101: www.sheep101.info/
- Story of How Linen is Grown: chestofbooks.com/crafts/needlework/Clothing-And-Health/Lesson-5-The-Story-Of-How-Linen-Is-Grown.html
- Wikipedia photos:
  Suffolk sheep: en.wikipedia.org/wiki/Domestic_sheep,
  Field of flax in bloom:commons.wikimedia.org/wiki/File:Linum_usitatissimum_01.jpg,
  Carding brushes, drum carder: en.wikipedia.org/wiki/Carding
  Drop spindle: en.wikipedia.org/wiki/File:Wooden_drop_spindle.JPG
  Irish Spinning Wheel: en.wikipedia.org/wiki/File:Elderlyspinnera.jpg
  Field of yellowing flax: commons.wikimedia.org/wiki/File:Linum_field1.jpg
  Danish Floor Loom: en.wikipedia.org/wiki/File:Hjerl_Hede,_krosno_tkackie,_ubt.jpeg