
BLACK SHEEP HANDSPINNERS GUILD
Ithaca, New York

NEWSLETTER #32 --- February, 1980
Edited by Jean Warholic

Snow at last! Now it seems more like winter --- although it's arriving more in time for spring... Hope you've had a chance to watch the Winter Olympics and get a bit of spinning done in the meanwhile!!

MARCH 10 MEETING. We will meet at the Cornell University Sheep Barns, near Harford, at 10 a.m. Brian Magee, who manages the barns, will first give us a shearing demonstration, using the hand-shears (this is a good chance to see it done, if you haven't before!), then he'll talk about the sheep research being done there, and end the morning session with slides and a brief talk about the sheep project he worked on while in the Peace Corps in Ecuador. There will be an opportunity to purchase fleeces after that, if you are interested. *Please be on time for this program!* Brian is generous to give us this time and information, and it should be a really interesting session for all of us!

We will converge at the Dryden Presbyterian Church about 12:30 or so, depending upon when we are through at the sheep barns, for lunch and business meeting. We do have much to catch up on and discuss (read on!), so please try to make both the sheep barns and the business meeting.

DRESS WARMLY for this, too! And perhaps one or two of us ambitious soup-makers can bring a pot of soup to help us warm up at the church! (Hope you refreshments people know who you are -- didn't get the list in time for this newsletter...) sorry.)

Directions to barns. From Ithaca: take Rt. 13 to Dryden, turn right at the stop-light onto Rt. 38. Proceed south about 5-6 miles. There are BIG SIGNS so keep your eyes open. The barns are up on the hill, to your right. If you get to Harford, you've missed everything, go back. From Whitney Point (and points south): come up (north) on Rt. 38, past Harford. There will be BIG SIGNS, and the sheep barns on the hill to your left. The telephone number at the barns is 844-8367 if you get hopelessly lost...

SEE YOU THERE!!!

SATURDAY GROUP. February 23 meeting: Joyce Scott will teach us a really neat braiding technique called SLENTRE WEAVING. You are to bring different colors and types of yarns (no nubby or bouclé yarns, please), AND YOUR BIG TOE. (You'll see why!) Joyce says it is great for our moth-eaten yarns, and we can do a bit of swapping if you are short on materials for this. Again, the meetings for the Saturday Group are from 12 noon to about 4 p.m., Northeast School, just off Warren Road, Ithaca. As usual, bring projects and/or spinning to do, there is help for beginners here, as well as wheel problems. Bring a mug and refreshments are optional (if they appear, they appear); hot water, coffee, tea are provided... To double-check on meetings, or whatever, the two people to call for the Saturday Group are Eleanor May (272-8224) or Ernestine Wright (257-0027).

YOUR 1980 MEMBERSHIP LIST is enclosed. Please check your name and address, etc. -- get any corrections to Jean Warholic as soon as possible. These are the members as of the February 11 meeting. New ones, renewals, etc. since then will appear on the next update/and newsletter. We tried to make this an error-free list, but errors are bound to happen...

We do have several new members we are proud to have join us since the last newsletter was mailed! The Weaving Workshop of the Rochester Folk Art Guild, Ann Olson, JoAnn Salo, to name a few -- it is good to have you with us! Note Joan Johnston's address for the year: Apt, #101, 1804 Wooten Park Drive, Austin, TX 78758. (Hey, that's MOHAIR country!) She's been looking for spinners in the area -- drop her a note if you know of any... You will be glad to know that Libby had her baby -- Niko Hoyo Llop, born Jan. 27, 8-lbs/14 oz. -- and it sounds as though sheep, mother and baby are doing fine! Hope you'll get to some meetings when you can, Libby...

LOST AND FOUND DEPT. Lost at Rock Day: denim tote bag with a sheep on it -- if you accidentally picked it up, please get it to a meeting -- Joyce Scott misses it!

YOUR SALES DOCUMENT FOR SHORN WOOL is enclosed. More copies available from Jean Warholic at the meetings. Again, fill one out when you buy a fleece from a shepherd, for his/her records... We will have them at Wool Day, too.

PAULA SIMMONS/LINDA BERRY WALKER WORKSHOP. The dates they have given us are May 31 and June 1 (Sat. and Sunday). Mark that on your calendar NOW. Unfortunately it is Memorial Day weekend, but we are lucky to have them... We will need to discuss and decide which topics we want them to cover (Paula: uses of handspun or production spinning / Linda: wool selection or spinning for design). We will also need a committee of several to handle the details of the workshop (registration, publicity, etc.) -- any volunteers? And where it will be (we need two rooms that will hold about 20 each, including wheels preferably, and in proximity of each other; preferably in the Ithaca/Dryden areas). We will need to finalize these plans by March 10... Fair warning!

THE FLAX PROJECT IS PROGRESSING, although slowly at this point. It has been a busy time for everyone involved. We should have more to report at the March 10 meeting. One of the big hurdles is to plan the spinning for the project. Gretchen Sachse has a good suggestion that will not only help us be more consistent, but be educational as well (for those who've done little or no flax spinning), and give us a means to "credit" Guild members who spin for this project. How about a FLAX WORKSHOP (Doloria Chapin?) and those members taking it who spin the historical flax can have a rebate on their workshop fee when they've fulfilled a requisite number of spinning hours. (Or skeins?) What do you think? We do need to get going with this, and a day-long session would give us a solid base for working...

THANK YOU, THANK YOU for the good response to the questionnaire! (Jean Warholic would still like your response, if you haven't gotten it in yet... ahem.) But it is most interesting to see what you would like to do (or not do), and we will have more on this in the next newsletter...

WOOL DAY IS ON!!! General concensus at the last meeting is that we go ahead and have it, despite the busy schedules looming in April/May/June. Below are the results of the sign-ups passed at the Feb. meeting on the 11th -- obviously, we need MANY MORE volunteers. Please look the list over, think about where YOU would like to be (and we can run split shifts), and plan to sign up or write us.

The main decision now is WHEN to have it. Sunday seems to be preferred. General feelings were that having it before Wool Pool Days is not as important now as in the past. We can have Wool Day in May, as in the past. Sunday, the 25th, is a possibility -- earlier in the month means very cold weather, assuming we have it at the Stewart Park Pavilion as in the past. Or we can have it in June -- how about the 8th, along with the Ithaca Festival 1980, on the Commons in Ithaca. SPEAK UP -- we want to hear from you, and need your participation. It is one of our best educational efforts, always lots of fun, and with YOUR HELP it is not a lot of work...

Coordinators of Wool Day: Nancy Morey and Jean Warholic. Additional help? (Will benignly oversee and coordinate chairmen.) P. Mutkoski will help.

Set-up/Clean-up: volunteers please, and chairman.

Publicity: Suzy Hokanson, Jean Warholic

Exhibits/Displays: chairman? Volunteers are K. Goodman, P. Mutkoski, A. Jones.

AD SECTION

PUT MORE SPEED INTO YOUR SPINNING -- Electric bulk spinners, \$175.00 postpaid. Yarn blockers, \$55.00 postpaid. Send \$1.00 and a stamped, self-addressed envelope (SASE) for photo and information. C. LeMar, 4409 - 18th Avenue, Kenosha, Wisc. 53140. (414/652-5609) *3/3*

PUT SOME RABBIT INTO YOUR HABIT -- Angora Rabbit Wool, that is! White, and \$1.00 per package, postpaid. Write: Kit Rowan, 604 S. 3rd Street, Montrose, CO 81401. *3/3*

UPHOLSTERING -- experienced; reasonable rates. Free estimates. Large book of samples to choose from, or can use your handwoven fabric! Call Lou Church, 607/844-9344. 2/3

LOOMS FOR SALE: Antique Oak Barn Loom - 6'Wx6.5'D, with vertical warp reel, from New York or No. Penna. area. Pegged, demountable. Antique, handmade accessories included (real reed reeds, rug shuttles, tension bar, rake spools. Two harnesses, two treadles, more can be added. Price: \$500.00. Hammett 32" Counter-Balance, four-harness, floor loom with bench and accessories, \$250.00. Contact Claire Benedict at 607/962-5918 or at 224 Cedar Street, Corning, N.Y. 14830. (Jean Warholic has xerox copies of photographs of these if you wish to see them -- will bring to meetings.) 2/3

ASHFORD WHEELS and accessories. Spinning stools, Leclerc and Ultex looms and tools. Yarns by Condon, Unger, Brunswick, Bucilla; new Harrisville Designs yarns due in any day. Ciba dyes and mordants. Silk, flax, ramie, pima cotton, wool top for spinning. Shetland wool, rayon, mohair yarns for weavers and knitters; new warp and weft possibilities from Belding-Lily too! Wooden buttons. Sheep stamps. Quilters hoops, stencils. Ruth Turner Drew's hooked rugs. Bill Bartlett's handwoven placemats. Lloyd LaVigne's handwoven yardage. WOW! What else can we say!!! HERITAGE CRAFT SHOP, 10 a.m.-5 p.m., Mon.-Sat., Dryden, N.Y. Call us for information on our classes, 844-4381. 1/3

ADD YOUR AD TO OURS! Ads are 50¢ each or 3/\$1.00, and reach over 100 spinners in central New York. For more information, or to place your ad (deadline is 2nd Monday each month): Jean Warholic, 280 Ringwood Road, Freeville, N.Y. 13068. (607/539-7648; evenings)

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WOOL DAY (continued)

Demonstrations: chairmen are Linda Olds and Kay Ross. Volunteers are needed for the following, in addition to those already.

Sorting a fleece - ??

Teasing, carding - ChrissMatijas + ??

Spinning wool - Toshia Napier, Anne Jones, Patty Mutkoski.

Spinning other fibers - Suzy Hokanson (anything!) + ??

Spinning on a great wheel or other wheels - Chris Matijas (castle) + ??

Spinning on a drop spindle - J. Becker-Greenfield, T. Chambliss

Knitting, crocheting, weaving with handspun - Kay Goodman (knitting),

P. Mutkoski (weaving, crocheting) + ??

Natural dyeing - ?? J. Becker-Greenfield can help.

any (Anything else?) Sheep shearing?

Do-it-yourself Corner (helping people try spinning, popular spot): ???

Fleece Sales: (cord. fleeces coming in for sale, help people select a fleece, handle sales) ???

Guild Sales Table: Maria Steve, N. Morey, + ???

Refreshments: optional. In past, Brownie type groups have handled this so we dont have to - know anyone who is anxious to do this?

THIS IS A START - more explicit list, descriptions in next newsletter when we up-date and have some firm idea as to when and where, etc.

GLAD SO MANY PEOPLE enjoyed the Christmas package of goodies! It has been suggested that we make it an annual affair... (gasp, says Jean W.) Let's have a few more contributions from people, then, and Jean Warholic will start a file. Again, please give complete citations as to source, page, date, etc. -- we really need to ask permission to reprint in advance. Send articles, etc. to Jean (address in Ad Section) -- photo reproduction is poor at best, sorry, so please minimize material requiring photo illustration...

THREE GORGEOUS BOOKS have recently been given to our humble library!! Many thanks to those kind people -- they are treasures (books and givers alike)!! By the time you read this, they will be ready for checking out and enjoying...

Dyemaking with Australian Flora by The Handweavers and Spinners Guild of Victoria (Australia). This beautiful book is the gift of an old spinner friend and gone-away (back to Australia) member, Joan Rae. She says she's been waiting for 18 months for this to be reprinted, and while the dyeing information is not quite geared to North American plants, it is most interesting and well worth looking through! Thank you, Joan! (Book was first published in 1974; this is its fourth reprinting.)

The Last Shepherds by David Outerbridge, photographs by Julie Thayer. WOW! There is much in this book -- the photographs are utterly beautiful, the text covers a lot of territory about people, sheep, and dogs, and the shepherds' life in many parts of the world. Those of you with sheep will find this of special interest. As a matter of fact, it is a special present to the Guild from one of Harley Rorick's sheep, a lovely Cheviot named Alice (whose fleeces were spinning favorites of Jean Warholic's). Alice came to Harley (Lodi, N.Y.) from (the late) Don Cook's flock, and the book is a posthumous gift: Alice was killed by dogs last summer. (Book is from Viking Press, 1979.)

Soft People: The Art of Dollcrafting by our illustrious new member, Loretta Pompilio. (The Crossing Press, 1979.) What a creative (in all dimensions of the word) book! And Eleanor May provided us with a brief book review: "Did you ever buy a pattern, follow it carefully and have the toy turn out exactly like the picture? (You say no?) And you were disappointed but didn't know what to do differently the next time? Now you will! This book is great -- everything is in it! I loved the suggestion to make a doll from your child's drawing. Note that the doll on the book cover has dyed fleece for hair. Just read it and get started -- and goodbye to Simplicity and McCall's!"

TREASURER'S REPORT, also known as the year-end summary of major earnings/expenditures... For your information -- and with a nod of thanks in the direction of Linda Dickinson, who's done an admirable job this year as Treasurer!

Balance at beginning of 1979:	\$4275.31	Balance at year's end (12/31):	\$469.98
Income - Membership dues	\$ 510.00	Expenditures - Program costs, fees,	
Wool Day	146.71	supplies	\$ 146.37
Workshops, sales		Newsletter printing,	
of Gerber yarns,		postage	236.41
etc. Money-raisers	69.10	Other misc. printing,	
Misc. sales	97.18	postage, etc	82.29
Library earnings	5.00	Library purchases	234.94
	<u>828.59</u>		<u>700.01</u>

There we are! And with a cushion that will help us do all sorts of things this year. The Gerber workshop expenses have now been covered, essentially, through the yarn sales, we are glad to note. And the sales table is looking pretty good, too!

WE HAVE HAD A TRAGEDY for a Guild member. Gretchen Sachse's much-loved small flock of sheep have been quarantined because of a rare disease. Those in the Guild who have sheep will know what a terrible blow this, and what is to follow, means. You should hear about it from Gretchen herself...

Scrapie: a rare neurological disease of sheep and goats caused, perhaps by a viroid. Transmitted either by contact or heredity. Symptoms include extreme itchiness, loss of condition for no apparent reason, tremors, an exaggerated gait, teeth grinding, horizon-gazing, loss of vision. They last 6 weeks to 6 months and generally end in death.

That's when the nightmare begins. Simeon, our purebred suffolk ram, died at age 4. We took him to Cornell for autopsy, hoping that the odds were with us. The odds are 6 reported cases a year out of a population of some 13 million sheep. Cornell reported it as a case of suspected scrapie to APHIS, the veterinary wing of the USDA. A federal vet came running down from Oneida, quarantined our flock and land indefinitely, and forbade me slaughtering any sheep for meat although they suspect the only means of transmitting the disease is by eating the brain of a diseased animal. At this point, we are waiting for confirmation of the diagnosis from a federal lab in Ames, Iowa. We have heard nothing for over two weeks. If scrapie is confirmed, we will have to dig a trench on our land and the federal vets will "depopulate" our flock -- i.e., kill them, probably via injection, fill in the trench, require us to disinfect the premises, and maybe pay us an indemnity of half the value of the animals. They apparently have the right to do this for any animal disease under a piece of panic legislation passed in 1953 called the "Wildfire Disease Act."

The entire process has been brutal and heartbreaking. The federal vets cannot explain the disease or even fully justify the steps they take to wipe it out (which they haven't managed to do). Not only my flock, but all those who have had even indirect contact with sheep from my flock, and the ram in particular, appear to be threatened.

A few more "facts" about scrapie. It occurs 94% in purebred suffolks. Incubation is generally 18-42 months. It has been observed in as short a time as 3 months and as long as ten years. It is considered a model in animals for multiple sclerosis. There is only one research program in the U.S. (in Mission, Texas) run by the USDA. The United States (Canada and Mexico do cooperate) is the only country to use extermination of entire flocks and bloodlines as a means of control. It has been known in the U.S. since 1953, in Canada since 1938, and in Britain, France, and Germany for over 200 years. This is the first reported case in New York State in over 5 years."

All of us who've been hearing about this incident, and anxiously following its events feel AWFUL. And as you can imagine, it has been difficult for Gretchen to talk about it. We appreciate her sharing this with us, and sincerely hope that somehow it doesn't drag out and be worse than it has been already... It has truly been a nightmare.

FORTHCOMING GUILD MEETINGS... Lamb-to-Loom (evening meetings, 7:00?, at the Vestal Public Library) meets March 12, "Weaving with Color" by Joan Koster. April 9th, "Spinning, Dyeing, Weaving Demonstration" for the Embroiderers Guild at NYSEG (Binghamton?). A May date to be set, "Dye Workshop." June 11, Election of officers, a planning meeting, for programs, and a short film on the making of Thai Silk. Cherry Valley Country Spinners Guild: (first Thurs. of each month) March, "Knitting with handspuns." April, "Troubleshooting spinning problems and hints for beginners." (They meet at the Cazenovia Presbyterian Church meeting house - ?) Seven Valley Weavers Guild has an important

workshop coming up with Albertje Koopman coming up -- actually two workshops -- the first is April 21-23, and the second is April 24-26. Mornings will be instruction; afternoons will be weaving. Am not sure what publicity plans are for this -- hopefully, since our mailing list has been passed on to the Guild, we will receive individual flyers. Otherwise, keep your ears open! Or talk to Suzy Hokanson or Dora Swart, for particulars. Forgot the newsletter for the Thistledown Handspinners in Norwich. My apologies. But they are having some good programs coming up, and plans for the October seminar are getting made.

KEEP YOUR CALENDAR OUT just a bit longer, and make note of below. Our spring, which didn't look very busy is getting very very fast! (Please contact Marion Wikoff, 387-5410, or Maria Steve, 387-5559, if you can demonstrate spinning at those events noted where we are requested to participate.)

- March 10 - BSHG Meeting, Cornell Sheep Barns -- don't forget and go to the Tin Can!
- March 17 - RCHA Workshop, "Textile Exhibit Techniques" by Karyn Jean Harris. 1890 House, 10 a.m. to 3 p.m. (Cortland). Registration by March 10 imperative.
- March 22-23 - Marathon Maple Festival! Always great fun demonstrating there. Spinners needed both days, dyeing too if you can manage it. Selling allowed. Hours are 9 a.m. to about 5 p.m., spinners are in the Town Hall. Sign up with Marion or Maria, or at one of the Guild meetings.
- March 26 - "Preservation, Conservation, and Restoration of Textiles" by Elsie McMurray. 2:30 p.m., DeWitt Historical Society, Ithaca, NY. Bring old pieces to discuss and date if you want to. Free.
- March 29 - BSHG Saturday Group meets, Northeast School.
- April 12 thru May 4 - Seventh National Handweavers' Show, The Mannings, East Berlin, Pa. (Write them directly for particulars if you haven't received them.)
- April 14 - BSHG Meeting, Tin Can. Program to be announced.
- April 15 - "The Hardman Quilt: Portrait of an Age" film showings at 2:30 and 6:30 p.m. Senior Citizens Center, Ithaca.
- April 21-23 + 24-26 - Koopman workshop, 7VWG (mentioned above). 1890 House, Cortland.
- April 22 - Nell Znamierowski will give a lecture/demonstration from 11-12:30, followed by a luncheon. Free, except for lunch. TC3, Dryden, N.Y. Talk will be about her weaving inspirations, sources of her work, and work of present day weavers as they relate to her own design sources. (Contact Mary Kelly for more info. if you need it, 844-8211; also, TC3 is interested in acquiring donations of weaving equipment and fibers for classes, etc., and is particularly interested in large looms, spinning wheels, etc. Ask her about it.) Income tax break possible.)
- April 26 - BSHG Saturday Group meets, Northeast School.
- May 12 -- BSHG Meeting, Tin Can. Program to be announced.
- May 17 -- 7VWG Fashion Show, Holiday Inn, Cortland. Reservations. Cost ±\$3.00.
- May 19-June 1 - 7VWG Annual Guild Exhibit, 1890 House, 2nd Floor Gallery, 1-4 p.m. Tues thru Sat. Fee: donation to 1890 House.
- May 31-June 1 - Simmons/Walker spinning workshop, BSHG. Details to follow.
- June 6-8 - Ithaca Festival 1980, The Commons, Ithaca.
- June 9 - BSHG Meeting, Tin Can.
- June 11-13 - "Using the Spinning Wheel as a Designer Tool" with Bro. Kim Malloy, St. Meinrad, Indiana. Should be terrific. Is anyone going? Would YOU like to have him for a workshop? (This is at The Mannings, E. Berlin, Pa.)
- June 14 - Annual Spinning Seminar, The Mannings, E. Berlin, Pa. (Free. Always a wonderful day!)

(Imagine planning this far ahead already!!! UGH.)

If your brain is still jumbled from reading about RATIOS in your Christmas goodie bundle of material, the article below by Paula Simmons (and the one on the other side of this page) should make a lot of sense to you. Paula is referring to the article we included in that bundle, by the way. And both articles are reprinted from THE WEB, November 1978, pages 5-8.

RATIO, SPINNERS AND WHEELS

by Paula Simmons,, U.S.A.

I found Mr Wildy's article, "The Double Drive Band Wheel and its Ratio" most instructive, but I'm not sure that a less complicated explanation would not be more helpful for most of us.

When ratios are approached from the standpoint of what is necessary for spinning yarn with a certain number of twists per inch, this is perhaps more useful to a wheelmaker than to a spinner. In actual yarn production, four twists per inch is not a specific yarn size that can be visualised—it could be a heavier yarn of a harder twist, or it could be a finer yarn with a softer twist. Either could be that number of twists per inch, but the ideal pulley ratio to spin these two sizes would not be the same. So, better to relate the pulley ratio to the size of yarn being spun, since the spinner can control the twist merely by holding back on the yarn to add more twist as desired, and adjusting the drive belt tension to make the control easier.

When a spinner is shopping for a spinning wheel, she is more interested in the size of yarn that the wheel is suited for spinning, than in its capability related to the amount of twist in the yarn. Also, since the size of the bobbin stem does change while you spin, as Mr Wildy points out, it does not seem helpful (to the spinner) to base a ratio on a changing factor.

A more useful approach, in my judgment, is to consider only the ratio between the flyer pulley(s) and the bobbin pulley(s). This is a fixed ratio, and gives an indication of the relative capabilities of various wheels. To determine this pulley ratio, divide the flyer pulley diameter by the bobbin pulley diameter. If the flyer pulley is twice the diameter of the bobbin pulley, this can be expressed as a 2.0 ratio (meaning 2.0 to 1). The ratio between these grooves, plus the drive belt tension, is what controls the speed and force with which your yarn is drawn in. The stem is also a factor, but a highly variable one, and can be offset by changing the drive belt tension.

For spinning fine yarn, a common bobbin pulley and flyer pulley size would be 2.25 inches for the bobbin and 2.75 inches for the flyer, which would give a pulley ratio of 1.22 (1.22 to 1). I feel that a pulley ratio of about 1.22 and up to 1.6 is suitable for spinning fairly fine yarn, but would not draw in heavy yarn hard enough or fast enough, even with the drive belt adjusted to a tension that makes treadling difficult. For a medium heavy yarn, the pulley ratio of about 2.0 seems best. If there are two pulley grooves on the flyer, the large one could be about 2.0 for heavy yarn, and the smaller one a ratio of 1.2 or up to 1.6, to use for spinning finer yarn. For finer yarns, also use less tension on the drive belt. These ratios are suitable for a soft twist yarn, so to add more twist you would hold back on the yarn, allowing slippage on the bobbin pulley while more twist is added to the yarn.

With most spinning wheels, I would suggest using the pulley size that is appropriate for the size yarn you want to spin, and as the bobbin gets fuller, not changing pulleys, but tightening the drive belt if necessary. For my own spinning, I find it easier to vary my spinning technique as the bobbin fills, rather than tightening the belt or changing pulleys

This could bring up the issue of the advantage of spinning wheels with longer bobbins (vs. shorter bobbins) where there is less change in the diameter of the stem for an equal amount of yarn being spun. Perhaps you could persuade Mr Wildy to do an equally instructive article on the pros and cons of a longer bobbin, from a wheelmaker's point of view.

(We might add that Paula Simmons' books have cleared up a lot of jumbled brains...)

THE SPINNER AND HER WHEEL

by Judith Plowman

When a spinner presses the treadle of her spinning wheel she sets into motion all the moving parts of her wheel—the bobbin, the spindle whorl and flyer and also the big wheel. Let us examine these separate moving parts and try to understand how they are dependent on each other for the correct functioning of the wheel.

The spindle is responsible for twisting the fibres to give them sufficient strength to make them useable as yarn. As one revolution of the spindle produces only one twist, it is fairly obvious that it must revolve very rapidly for the production of a length of yarn. If we had to treadle at the rate the spindle turned we should soon become exhausted.

To overcome this the little spindle whorl is connected by means of a drive band to the much larger drive wheel, which in turn is connected to the treadle. Every time the treadle is pressed, the big drive wheel revolves once and the little spindle and whorl with its attached flyer make several revolutions—exactly how many, depends upon the relative sizes of the drive wheel and the spindle whorl.

If the diameter of the drive wheel is twice the size of the spindle whorl, the latter would revolve twice to every once of the big wheel. So every time the treadle is pressed you would have two twists put in your wool, or to express the relationship another way we could say the drive ratio is 2:1. Similarly, a wheel twelve times as big as the spindle whorl would cause the spindle and flyer to make twelve revolutions to every one of the drive wheel. The ratio would be expressed as 12:1, and every time the treadle was pressed twelve twists would be put in your wool.

The meaning of Drive Ratio is the same whether your spinning wheel is a double band or Scotch tension type.

It is very simple to find the drive ratio of your own wheel. Mark one arm of the flyer with a small bow. Put the crank shaft at the back of the big wheel to upright, to get a good starting and stopping position, and revolve the drive wheel once, very slowly by hand. At the same time count the number of revolutions the flyer makes. On the majority of New Zealand wheels it falls between five and seven. The ratio can of course be altered by changing the size of the whorl. Wheels are sometimes sold with several whorls although a more common practice is for them to have a multiple whorl with several different sized grooves in it.

However, changing the drive ratio is not quite as uncomplicated as this, particularly with double band wheels. That problems exist is fairly apparent from the statements and counterstatements that have appeared in *The Web* over the last months. To clear up the confusion we must also understand the function of the bobbin on the spinning wheel.

If the bobbin fitted the spindle shaft tightly it would twirl around the spindle and flyer and we should have to wind the twisted yarn on to it exactly as is done in spindle spinning. One of the advantages of the Saxony type spinning wheels is that spinning and winding can take place simultaneously. For this to happen the bobbins must fit loosely so that they can revolve at a different rate, independently from the spindle and flyer. This is where the two types of wheel differ.

On a Scotch tension wheel the bobbin rate is controlled by an entirely separate cord which acts as a brake and causes the bobbin to revolve more slowly. Reducing or exerting more pressure on the brake controls the speed at which the bobbin revolves and affects the rate at which the yarn is drawn in and wound on. The measurements of the bobbin whorl and the spindle whorl have no critical relationship and so the size of the spindle whorl can be changed with relative ease. However, on a double band wheel the bobbin, the spindle whorl and

the drive wheel are all driven by one long band so for the three whorls or wheels to revolve at different rates they must all be of different sizes. To function correctly on this type of wheel the bobbin groove should have the smallest circumference and consequently it will turn more quickly than the spindle and flyer. Thus on a double band wheel there is a second ratio—the ratio between the size of the spindle whorl and the size of the bobbin whorl, and a very critical ratio it is. If there is not sufficient difference between their sizes, the yarn will not be drawn on properly nor will it be twisted correctly and evenly for the entire filling of the bobbin.

A difficulty arises in that the correct ratio seems to differ with different makes of wheel. It probably has something to do with bobbin weight or size or the friction between its shaft and that of the spindle. However, now it will be understood why on a double band wheel when the spindle whorl is altered not only is the drive ratio affected but also the wind-on rate to the bobbin. Just how far we can afford to upset this balance is something we are not quite sure about. It may not matter as much as was previously thought or, again, it may vary from wheel to wheel.

Although it has nothing to do with ratios it seems worth mentioning that the groove on a bobbin of a double band wheel should not only be different in size but also different in shape to allow the bobbin to slip when the spinner so requires. On a Scotch tension wheel with its separate drive and brake bands a bulky cord should be used for the drive band to get good traction and a change can be made to a finer cord for the brake band, which will allow for slippage. With a double band wheel this cannot be done so the bobbin groove should be altered instead to a U-shape to accommodate the different functions of the one long band. Without this adjustment a finer drive band must be used and much traction is lost. A double band wheel needs to be made by a professional spinning wheel maker who is conversant with not only the engineering requirements of the wheel but also with the requirements of the spinner as well.

And what does all this technical information do for us as spinners? It probably depends on what sort of person you are. I may shock the pundits but let us face the fact; dozens of people having been spinning away for years without having any idea what the drive ratio on their spinning wheel is. Their sense of touch is such that they produce beautiful yarn without worrying about the mechanics of their wheels. But let us not dismiss it all quite as simply as that as some yarns are definitely more easily produced with certain drive ratios than others. However, before you rush out to buy new spindle whorls remember, competent spinners with well-designed spinning wheels should, by adjusting their drafting techniques and by cultivating their sense of touch so they can correctly control their tensioning, be able to spin fine, medium and thick yarn with the desired number of twists per inch for the diameter of the yarn they are spinning—that is what spinning is about.

However, if you are regularly producing only one type of yarn it would seem sensible to have the spinning wheel which is the most suitable one for this type of yarn. Fine yarns need more twists per inch so you will work more easily with a wheel with a high drive ratio. Bulky yarns need fewer twists per inch, so a wheel with a lower drive ratio would be suitable. If you aren't satisfied with your wheel you might do better to sell it and replace it with one that is more suitable for your requirement. However, remember other things about the wheel are important, too—the size of the orifice, the bobbins, the hooks, the ease of treadling and the whole structure and balance of the wheel. Even with a variety of drive ratios some wheels seem much more suited to the production of heavy yarns and others are better for lighter yarns. Never ever buy a wheel without spinning a variety of yarns on it first.

THERE! Now wasn't that fun, sneaking in the ratio article by Paula Simmons?! Reprinted, alas, without permission. Bad Jean.

BEFORE I FORGET -- for a list of the textile program schedule, initiated by that energetic Susan Andrews, please send an SASE to the Senior Citizens' Council, 213 So. Geneva Street, Ithaca, NY 14850. They will be delighted to send you a copy. And there are MANY fiber-related things going on -- I just listed those pertaining to spinning or Susan's talk at our meeting earlier this month. You missed a very nice time, by the way, if you didn't get to it... THANK YOU, Susan, for your time and those marvelous slides!!

Bartlettyarns of Harmony, Maine (04942) has its latest price and sample list out -- send a postal card requesting a copy!

Kay Goodman brought to our attention two articles in current magazines you might want to watch for. "Weaving on a Branch: An Old Indian Craft" in Women's Circle, Feb. 1980. And a very colorful long article about "Natural Dye Recipes" by Barbara Radcliffe Rogers in Needlecraft for Today, March/April 1980. Thank you, Kay! Gretchen Sachse notes a new book out recently, "The Weavers Draft Book and Clothiers Assistant" by John Hargrove with introd. by Rita J. Adrosko. It's a facsimile publication, chock full of Clothiers' tips, dyeing, and weaving information and patterns. We'll have the rest of the (tempting) book review at the next meetings for you to peruse... Hope Gretchen gets a copy!

The end of this newsletter... DEADLINE for the next one is March 10 at our meeting.

Please make special note of the information and quandries to be settled on the first few pages of this newsletter. We do have some solid decision-making and signing up to do for workshops and various chores...

SEE YOU AT THE SHEEP BARNS!!!

-- Jean Warholic

A little something to knit before the snows disappear completely: below are the directions for the traditional Vermont toque which appeared in a recent issue of The Shepard (and which may sound like a pattern from Bartlettyarns if you keep up with them). Published by the Vermont Sheep Breeders Assoc., this toque is the one that supposedly kept heads and ears warm during New England winters ever since the first settlers came to the "grants." No stain!

One (4-oz?) skein natural yarn, 3-ply. Needles (#7?) to give gauge of 13 rows = 2 inches. (Knitter Warholic finds this a puzzling way to put it, but knit on...) Cast on 88 stitches. Knit 2, purl 2 for 8 inches. Knit 2, purl 2 tog across. Knit 2, purl 1 across for 12 rows. Knit 2 tog, purl 1 across. Knit 1, purl 1 across for 3 rows. Knit 2 tog across to decrease for top. Break yarn, pull through. Sew seam tog. (Us circular knitting freaks won't have to bother!) Make tassel and attach.

Did anyone ever get Gretchen's 1845 school exercise? Try again. A Farmer, being asked how many sheep he had, answered that he had them in 5 fields. In the 1st, he had 1/4 of his flock; in the second, 1/6; in the 3rd, 1/8; in the 4th, 1/12; and in the 5th, 450. How many had he?

Old typists never die, they just lose their touch...