All About Spinning Cotton

A Guide to Cotton Spinning
+ Free Naturally Colored Cotton Yarn Patterns
Cotton is an amazing fiber—growing in hot climates and emerging from beautiful flowers on spindly bushes and trees, cotton fibers are great for keeping us cool and dry when it is hot and humid out. It is the fiber the ancient Egyptians cultivated to clothe themselves and also used to wrap their dead in fine handspun, handwoven cloth, ensuring a safe passage to the afterlife. When the Spanish encountered cotton in the New World, they depicted it as a plant with puffs of little sheep growing on it—it was a soft and fine as the wool of their Merino sheep. In India, tahkli and charka spindles have been the perfect tools for spinning the short staple length of the cotton fibers for millennia. In the United States, the textile industry depended on the cultivation of cotton. Cotton really is the fabric of our lives as the cotton industry says—but for handspinners, it can be a bit intimidating.

However, you’re in luck! This eBook is filled with great tips about spinning cotton from spinners who love working with cotton and know how to get just the results they are looking for. Learn about the naturally occurring colors of cotton and some of the history of colored cotton available to handspinners and then try out your handspun cotton by weaving dish towels, knitting a sweater, or crocheting a small bag.

One of the oldest of Interweave’s publications, Spin-Off is a quarterly magazine that has been around since 1977, inspiring spinners new and old to make beautiful yarn and find enchanting ways to use it. We also host the spinning community spinningdaily.com, complete with blogs, forums, and free patterns; Spin-Off Autumn Retreat (SOAR), an intense and inspirational week with like-minded spinners; and our series of workshop videos where the living treasures of the spinning world share their knowledge with you. We’re devoted to bringing you the best spinning teachers, the newest spinning ideas, and the most inspirational creativity right to your mailbox, computer, and ultimately fingertips.

We hope you enjoy your spinning journey—come tell us about it at spinningdaily.com.

Happy spinning,

Amy Clarke Moore
aclarkemoore@interweave.com
Colored Cotton

by Carol Huebscher Rhoades

Until very recently, the mention of colored cotton was met with skepticism. Most people believe that cotton is only white; however, natural-colored cotton has been around for at least four millennia. Colors ranging from pale tan to rich red-browns were propagated in Central and South America, the Caribbean, Africa, and India. Other colors, such as shades of rose, blue, and green, have been noted, particularly in Peru.

For the past two centuries, the fate of colored cotton has been determined by economic factors. Longer staple white cottons are easier to spin, dye, and process industrially than are colored cottons. White cotton is smoother and silkier than most colored cotton and thus more desirable and exclusive. Despite the dominance of white cottons (there are many varieties of the cotton genus *Gossypium*), wild and cultivated brown cottons have persisted in some areas. Sally Fox is generally considered the most important person in the modern revival of colored cottons (read her story at www.vreseis.com). During the 1980s and early 1990s, she successfully marketed natural colored cotton fiber, yarn, fabric, clothes, and bed coverings. She then closed most of her operation following complaints from commercial growers of white cotton about possible cross-pollination and contamination. Colored cotton is back in vogue, and Peru now supplies much of the fiber and products. It isn’t just the colors, though, making it desirable. Commercial white cottons are grown and processed with very high amounts of chemical fertilizers and defoliants. Colored cotton plants are more pest resistant, can be grown as perennials, and are often grown organically. Colored cotton production and processing also provides fair-trade income for indigenous peoples. Beautiful natural colors, low-impact growing and processing, and a decent livelihood make for an economically viable product for a niche market.

**Fiber characteristics**

After spinners delight in the wonderful hues of colored cotton, they moan when they check the staple. I’ve seen it as short as 1⁄4” and as long as 1 to 1 1⁄4”. From my experience (and that of Lynn Teague, archeologist and cotton specialist), usually the darker the color, the shorter the fiber. The shorter fiber can also be coarser but not always. Some colored cottons have been crossed with longer white varieties, with resultant longer staples. Try samples from various sources and/or blend cottons to find the color, length, and softness you prefer. Natural-color cottons have the same basic qualities as white cottons. Cotton absorbs and wicks moisture, so you and the fabric will feel dry even when the fabric contains 20 percent of its weight in
moisture. Cotton is easy to wash and comfortable to wear. Unlike wool, it is stronger when wet but can be weak when dry. The colored cotton industry is still in the early stages of revival, and plants are being bred and selected for various qualities. We may soon find softer and longer colored cottons more readily available.

Preparing colored cotton

Since most colored cotton on the market for handspinners is already processed into sliver or roving, no preparation is needed. Predrafting isn’t necessary and will result in little shreds of roving because the fiber is so short.

If you have some cotton lint (the fibers surrounding unprocessed cotton seeds), remove the cotton seeds, if necessary, by pulling the fiber away from the seeds, or if you want to blend colors from rovings, card the fibers very gently on cotton cards. If you have wide cotton cards, it is easier to manage the carding if you spread fiber only in the center third (about 3” across) of the card.

Spread a fine layer of cotton near the front edge (the edge with the handle is the back edge) of the card and then another row behind that. Lightly catch the fiber onto the card teeth with a fingertip of one hand and pull forward from the roving with the other hand to thin out the fiber mass. Thin layers will be much easier to card efficiently. When carding, just float the top card over the bottom one. If the teeth of the card mesh, it will embed the fiber into those fine and closely set teeth, and you’ll have to dig out the fiber. Most lint has some vegetable matter in it and little noils, so don’t keep carding in hope of a smooth sheet of fiber. Transfer the fibers from card to card a couple of times and roll the fiber into a rolag or puni when the cotton is relatively smooth and evenly spread across the card.

Spinning and plying colored cotton

Before you spin cotton on a wheel, prepare the wheel. Select a wheel with high-speed ratios, oil the wheel well as per manufacturer’s directions, and put on a small whorl. If your wheel accommodates various drive bands, use a fine cotton cord band to lessen the tension on the wheel. Adjust the tension on the wheel so that it just barely draws in. You’ll have to add tension as the bobbin fills but add tiny amounts at a time. I can usually hear a smooth whirring when the bobbin has the right speed and tension for adding plenty of twist to the cotton, without pulling in the yarn too fast.

As for spinning any fine, smooth fiber, twist is the key. Check the amount of twist early and regularly by pulling on a section of yarn. Some colored cottons have very short staples and the yarn may feed onto the bobbin but will shred when you remove it if there isn’t enough twist holding it together. If you have trouble getting enough twist into the fiber, either change whorls, treadle faster, or pinch off at the fiber end and treadle a bit more before letting the yarn go onto the bobbin. Keep the same extra treadle count throughout for an even yarn. Resist the urge to reattach little lengths that break off while spinning. If you have many breaks, then you need to evaluate your spinning method and wheel.

I like to spin from the end of a rolag, puni, or sliver with either a short backward point-of-contact draw (the twist goes almost but not quite into the fiber mass) or by double drafting. Short forward draw is not recommended as it is usually nerve-wracking, hard on your back as you hunch over the short fibers, and very likely to make the roving disintegrate.

It is always tempting to take shortcuts with cotton spinning and especially plying. Even though I know plying a highly twisted singles from spinning wheel bobbins directly after spinning is frustrating and counterproductive because of the active twist, I thought that plying from the charkha spindles with the yarn fairly tightly wound on would be easier. Not! I then decided to

---

**Rolling a puni**

After carding the fiber, position a smooth ¼” diameter or smaller dowel (I use a smooth round chopstick) at the front edge of the carder and roll it toward the handle. To start the roll, use the side of your hand to catch the fiber ends against the dowel. After rolling up the fiber, I return the dowel to the front of the carder and roll it toward the handle again with a slight amount of pressure (not too much or you’ll damage the teeth) to firm up the fibers. Roll in only one direction so the fibers remain aligned. Pop the puni off the dowel by pushing it up from one end.
lightly steam the thread by suspending each spindle over a kettle of boiling water. One spindle promptly fell in. I fished it out carefully and did what I should have done to begin with—I wound the thread from the spindle onto the skein winder. The thread dried quickly, and I was able to ply it with that on the other spindle. The twist had set on the yarn that got the brief steam bath so my idea could work, provided the spindles are rust resistant and stay put during the steaming. Otherwise, I recommend that you set the twist first by winding the cotton thread onto a short PVC pipe with holes in it and boil that for 30 minutes with a dash of dish soap. Boiling darkens the natural cotton color so test the process on a swatch or sample before boiling all the yarn for your project. You can also wind the singles onto a plastic niddy-noddy and carefully steam the thread.

Natural cotton colors are beautiful on their own, but if you can’t find the colors you want, don’t be afraid to blend two colors or make shades of one color by adding percentage amounts of white. Since boiling colored cotton usually darkens it, if you spin the cotton and divide the yarn into two skeins, but boil only one and steam the other, you’ll have two shades. You can also make short-staple cotton easier to spin by blending in about 25 percent long-staple white cotton. Blending cotton with other fine, short fibers such as camel, angora, fine wool, and silk cocoon strip-pings not only makes cotton easier to spin with less twist but offers a lovely variety of textures and colors.

Sample 1

The very pale tan (Candlelight) organic cotton top, with fibers 1 to 1¾” long, that I bought from Little Barn reminded me of old cream-colored coverlets. I quickly found a knitted design in Weldon’s Practical Needlework, one of my favorite sources for lace patterns. The openwork pattern suggested needles equivalent to either a U.S. 0 or 00, so I knew I needed a fine thread.

To ensure enough twist in the fine strands, I spun the Z-twist singles on my Bosworth attaché charkha with a 110:1 ratio. I used a point-of-contact draw and drafted back just barely ahead of the twist so that the yarn would not be too thin. After drafting out an arm’s length, I pinched at the point between the fiber and the yarn, turned the wheel three times, and then wound on.

For the S-twist two-ply, I tried it on the charkha, having wondered why I had never seen instructions about how to do this. I soon discovered that the threads did not feed easily for plying from the built-in lazy kate and that the spindle wasn’t appropriate for the heavier plied thread. I sought advice on two DVDs about charkha spinning (see Resources) and was relieved to see that both recommend plying on a wheel or regular spindle. Plying on my Timbertops Irish castle wheel (19:1 ratio) was quick and easy, although I checked periodically to be sure enough twist was inserted. After knitting a square, I decided to add more twist. I wound the 100-yard skein, weighing ¼ ounce and measuring...
40 wraps per inch, onto a plastic niddy-noddy for steaming to set the twist (boiling would have darkened the color).

**Knitted pattern for a quilt square**

Pattern adapted from “Weldon’s Practical Knitter, Thirteenth Series,” *Weldon’s Practical Needlework*, Vol. 5 (Loveland, Colorado: Interweave, 2001). This little square is placed between large octagons that are the coverlet’s main motifs. If you knit the octagons, note that there is an error in the pattern, an extra (yo, k2tog) in row 18 that should be eliminated.

With U.S. size 00 (1.75 mm) double-pointed needles, cast on 8 sts and divide them 2–2–4 over three needles.

*Round 1 and all odd-numbered rounds: Knit.*
*Round 2: *Yo, k1; rep from * around.
*Round 4: *Yo, k3, yo, k1; rep from * around.
*Round 6: *Yo, k5, yo, k1; rep from * around.
*Round 8: *Yo, k7, yo, k1; rep from * around.
*Round 10: *Yo, k4, yo, k2tog, k3, yo, k1; rep from * around.
*Round 12: *Yo, k3, k2tog, yo, k1, yo, ssk, k3, yo, k1; rep from * around.
*Round 14: *Yo, k3, k2tog, yo, k3, yo, ssk, k3, yo, k1; rep from * around.
*Round 16: *Yo, k3, k2tog, yo, k5, yo, ssk, k3, yo, k1; rep from * around.
*Rounds 18 and 19: Purl, increasing 1 st at each corner.*

Bind off loosely in purl. The piece is 2 1⁄2” square.

**Sample 2**

I like using handknitted cotton washcloths but usually knit them with commercially spun cotton yarn. Spinning and plying a cable yarn is time-consuming but worth it in the long run for the added durability. To sample the effects of single color and tweed cable yarns, I designed a soap holder in two colors.

The Vreseis sea green sliver and the top that was white with a sea green stripe both had 1-inch staples. For each yarn, I spun four strands on my Timbertops Irish castle wheel with a 21:1 ratio. Luckily, the bobbin already on the wheel was half-filled with another yarn. That weight lessened the draw-in tension on the wheel. I divided the fiber into four lengths and spun each one after the other, changing hooks at the end of each length. I spun by double drafting, frequently adjusting the tension for easy take-up and making sure there was enough twist in the yarn.

After spinning the Z-twist singles, I resisted the temptation (great as it was) to ball each segment for plying. Instead, I released the tension on the bobbin whorl and wound the thread onto a plastic niddy-noddy. I broke the thread at each segment and tied it to the previous one so it would be easy to find the dividing lines when later winding each segment into a ball on a nøstepinne after steaming the yarn on the niddy-noddy to set the twist.

Cable yarns are plied in two steps. Two sets of two-ply yarn are produced first (S-twist) and then those two are plied with Z-twist. I plied on the Irish castle wheel with the waste yarn still on. To attach the strands for plying S, I pulled out a 1-yard length of the waste Z-twist singles, doubled it, and knotted it at the bobbin end. I slipped the strands to be plied into the loop at the other end.

After plying the yarns, I skeined each again and set the twist by gently boiling the skeins for 30 minutes. To help the cotton submerge in the water,
I added a dash of dish soap. The green darkened as is usual with natural-colored cottons. The yarns measured 16 to 17 wraps per inch. I spun a total of \(\frac{3}{4}\) ounce with 32 yards green and 31 yards white.

The dried yarns felt rather stiff, but they softened up as I knitted, especially the green one. I worked each side of the bag separately and knitted back and forth on U.S. size 3 needles. After 7½ pattern repeats, I changed to crochet hook U.S. size D and worked a row of single crochet across and then shrimp stitch back (shrimp stitch is single crochet worked from left to right). I finished the bag by seaming the sides and bottom and then sewing on two rustproof snaps to close the top edge. I still can’t decide which color I like best so will have to make a washcloth of each.


Cast on 24 sts.

Rows 1 and 4: Sl 1 knitwise, k2, p6, k2, p2, k2, p6, k2, p1.

Rows 2 and 3: Sl 1 knitwise, p2, k6, p2, k2, p2, k6, p3.

Sample 3

There are many colors and shades of colored cotton, so I knitted a sampler to show off some of the variety. I also wanted to test-drive a new lightweight (\(\frac{3}{4}\)-ounce) spindle from Greensleeves Spindles—the Damsel Monique top-whorl spindle. Some of the fibers were in sliver form, others were batts or even cotton still on the seed (from my garden). To make a smoother yarn from the batts and to make all the yarns as similar as possible, I quickly handcarded the cotton on my child-size cotton cards and rolled each batt into a puni for easy spinning (see Rolling a puni on page 3).

For each color, I carded ten punis and spun them by double drafting on the Greensleeves spindle. The spindle holds the spin for a long while, so it wasn’t hard to double draft and get enough twist into the yarn. I spun about an arm’s length and then wound on. When I spun a longer yarn, it tended to thin out a bit, and I didn’t want a fine, fine yarn. I spun the yarns one after the other, alternating light and dark so I could tell where each color ended.

I let the singles sit on the spindle for a day to set the twist in the warm, humid Texas spring air. I wound each color into a ball on a nøstepinne (this makes a center-pull ball that doesn’t collapse) and plied the yarns on the Monique spindle. I noticed that when I plied an extra long length and then caught it under my elbow to keep the yarn from tangling, the yarn tended to break at the point where plying stopped. The problem was solved by plying Blend cotton with other fine, short fibers such as camel, angora, fine wool, or silk cocoon strippings to make the cotton easier to spin.
1. Peruvian Organic “Camote”
2. Foxfibre green
3. Rhoades home garden
4. Cotton Clouds light brown
5. Guatemalan
6. Stephenie Gaustad
7. Foxfibre red-brown
8. Foxfibre “Oatmeal”
9. Cotton Clouds medium brown
10. Peruvian Organic “Avocado”
11. Foxfibre light red-brown
shorter lengths before winding onto the spindle. The yarns averaged 105 yards per ounce and 20 to 22 wraps per inch.

On the sampler, the darkest color is Camote, a Peruvian organic cotton; this is followed by Foxfibre green, brown from my garden, Cotton Clouds light brown, Guatemalan, Stephenie Gaustad’s cotton, Foxfibre red-brown and Oatmeal, Cotton Clouds medium brown, Peruvian Avocado, and Foxfibre light red-brown.

The knitting pattern is Lattice from “Weldon’s Practical Knitter, Fourteenth Series,” Weldon’s Practical Needlework, Vol. 5 (Loveland, Colorado: Interweave, 2001). I knitted the sampler on U.S. size 2 needles. I started and ended with 3 knit rows and then worked the pattern following the original instructions. I also slipped the first stitch of each row knitwise. Lattice Pattern (repeat of 6 + 5)

(Original instructions have been “translated” into contemporary U.S. knitting language.)

Rows 1 and 3: Knit.
Rows 2 and 4: K3, purl to last 3 sts, k3.
Row 5: K3, *yo, sl 1, k3, pass the slipped st over the three knitted sts; put the 3 knit sts back on left needle and draw the next st to the left over them; place the 3 knit sts back on right needle; yo, k1; rep from * until 2 sts remain, end k2.
Rows 6, 8, 10, 12: K3, purl to last 3 sts, k3.
Rows 7 and 11: Knit.
Row 9: K3, k2tog, *yo, k1, yo, sl 1, k3, pass the slipped st over the three knitted sts; put the 3 knit sts back on left needle and draw the next st to the left over them; place the 3 knit sts back on right needle; rep from * until 6 sts remain, end yo, k1, yo, ssk, k3.

Repeat Rows 5–12 as often as desired and then bind off. 

Carol Huebscher Rhoades dreams of Silk Road adventures while she spins and embroiders in Madison, Wisconsin.

Fiber Sources
Cotton Clouds Inc., 5176 S. 14th Ave., Safford, AZ 85546; (800) 322-7888; info@cottonclouds.com; www.cottonclouds.com.
Little Barn, 173 McKee Rd., Harvest, AL 35749; (888) 243-4237; www.littlebarninc.com.
Vreseis Limited, PO Box 69, Guinda, CA 95637; (530) 796-3007; info@vreseis.com; www.vreseis.com.

Resources
Rhoades, Carol. “Handcarding with a Light Touch, Or How to Make Perfect Rolags,” Spin-Off 25, 3 (Fall 2001), 74–79.

A cigar-box charkha is a portable spinning tool—perfect for spinning cotton on the go.
My Cotton Shirt
Start to Finish
by Ann Durham

Ann planted the seeds, harvested the cotton, ginned it, carded it, spun it, and wove the fabric for this cotton blouse.
L
ike me, anyone who has worked in a ser-
vice sector knows The Dreaded Phone Call.
Those who have to talk all the way around
a question before they finally ask it. Those who
think you need their life story. You listen patient-
ly. You file your nails. You tidy up your desk.
You doodle. Or you reach for a spindle. I find that
I can focus better on a conversation if I'm doing
something with my hands. I can relax, without try-
ing to hurry the caller along. Spindling helps me lis-
ten without fidgeting, and makes me willing to give
longer and more thoughtful answers and explana-
tions. At my job at Florida State University,
Tallahassee, as an Academic Administrator, I am
often thanked by students who appreciate my
patience and my employers understand that I do a
better job when I am spinning. Also, my spinning
technique is discreet enough that people walking by
rarely notice what I am doing. Though, once a stu-
dent from Bulgaria came to see me and his eyes lit
up when he saw the spindle sitting in the basket on
my desk. He told me all about his grandmother and
how she used to spin. Later he gave me a treasure—
an old, well-used Bulgarian support spindle.

After a little experimentation with drop spindles
(which I found awkward to use while sitting), I
settled on a small support spindle with cotton as
my fiber.

I grow a small patch of cotton in my Florida
garden each year, and get a fairly good supply of
fiber in four colors: white, light brown, green, and
dark reddish brown. I handcard it onto punis and
keep them in a small baggie in my drawer. I got a
shoulder rest for the receiver and I was set.

Now when the phone rings, I reach for a spin-
dle. If the conversation is short, I twirl it on my
desktop. If the conversation drags on, I lean back
comfortably, balance the spindle on my knee, and
draft back toward myself. I like to use a fairly
short spindle (about 7 inches long) without a hook
in the end. The spindle rests on my knee for sup-
port and I hold the shaft between my pinkie and
ring fingers of my right hand. I can flick the tip of
the spindle between my thumb and forefinger and
let it twirl freely in the arch of my fingers while I
spin toward my chest. Because cotton is a short-
staple fiber that is most effectively spun by the
long-draft method, I draft well ahead of the twist
until the yarn is fine, then I twirl the spindle a few
more times to insert additional twist. When the
yarn has enough twist it feels strong when I tug
on it, rather than feeling like it will drift apart.
I wind on the length of yarn and begin again.

I can make only about a foot of yarn at a time
while I’m taking a call, but my shoulders are
relaxed, my elbows are down, and the only motion I
make is a small back-and-forth movement with my
left hand. I find it a very comfortable way to spin
and especially great for spinning in confined areas
like cars, planes, and meetings. If I need to take
notes while I’m talking, I just lay the spindle on the
desk. The short length of yarn won’t snarl too badly
and I can pick it up and start where I left off.

When a spindle is filled, I take it home to reel it
off, and simmer it with a dash of detergent for 30
minutes to set the colors. I lay the skein out to dry
on a towel. After it has dried, I toss it in a shoebox.
I average about 100 yards per spindelfull. One day
I was stuffing another skein in the box when it
struck me that there were at least twenty skeins in
there—enough to actually do something! In fact,
in the course of a year’s calls, I had spun a couple
of thousand yards.

I played around with ideas for a while. I don’t
particularly enjoy knitting with cotton, and since
I’d recently acquired a loom and learned to weave,
I thought I would weave fabric for a shirt using a
commercial cotton yarn for the warp and my
handspun as the weft.

Because I would be using my four colors for
stripes, I decided to put on a wider warp than
usual so that I could cut the pattern crosswise (I
find that vertical stripes are more flattering than
horizontal ones).

I am not yet comfortable weaving with very
fine yarns, so I chose a 10/2 unmercerized cotton
in a natural white for the warp. I used a sett of 20
ends per inch, threaded in a twill pattern. This is a
slightly wider sett for this size yarn and pattern,

<table>
<thead>
<tr>
<th>Project Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Finished size:</strong> 27” wide x 70” long, after washing.</td>
</tr>
<tr>
<td><strong>Fiber:</strong> White, light brown, green, and dark reddish brown cotton.</td>
</tr>
<tr>
<td><strong>Warp yarn:</strong> 30” wide, 3 yards of 10/2 unmercerized cotton (enough for sampling and loom waste).</td>
</tr>
<tr>
<td><strong>Weft yarn:</strong> 30 picks per inch, 2,000 yards of white, light brown, green, and dark reddish brown handspun cotton about 50 wraps per inch.</td>
</tr>
<tr>
<td><strong>Sett:</strong> 20 ends per inch.</td>
</tr>
<tr>
<td><strong>Weave structure:</strong> Plain weave and Rosepath twill.</td>
</tr>
<tr>
<td><strong>Pattern:</strong> Folkwear’s Egyptian Shirt, medium.</td>
</tr>
</tbody>
</table>
but I wanted to emphasize my handspun with a slightly weft-faced fabric.

I wound all my handspun yarn into balls. The green cotton had a shorter staple than the others, and I had spun it quite finely, so I decided to ply it. I wove the other colors as singles. I lined up the balls to play with the color sequence. I had larger amounts of the white and light brown, and smaller amounts of the green and dark reddish brown. I wanted these two darker colors to stand out, so I decided to use a combination of plain weave and twill. In my final pattern I wove a half-inch in white in plain weave, then a quarter-inch of the reddish brown in twill, then a half-inch of white in plain weave. Then I wove a half-inch in light brown plain weave, a quarter-inch of green in twill, and a half-inch of light brown in plain weave. The final effect was that of brown and white stripes with a twill stripe down the middle of each one. Just what I wanted!

Despite my using four shuttles and changing colors often, the weaving went quickly and easily. My handspun was slightly finer than the commercial warp, and that, combined with the open sett, did produce the weft-emphasis fabric I wanted. The commercial warp is almost invisible.

When I was finished, I cut the fabric off the loom, serged the ends to prevent raveling, and tossed it in the washing machine on the gentle cycle (while pacing and wringing my hands). The final fabric was soft and drapey. I wanted a pattern that would not waste any of the precious fabric, yet not be boxy and unfitted, so I settled on Folkwear’s Egyptian Shirt pattern, designed to be cut very economically.

The final cutting and sewing of the shirt took only a couple of evenings. I modified the pattern to a V neck (the original had a slit neckline) and used bias tape, not facing, to finish the edges. I also eliminated the side-seam pockets.

Nothing can describe my pleasure when I wear this shirt. I planted the seeds, tended the plants, picked, ginned, and spun the cotton, wove the fabric, and sewed the shirt. It is my shirt—mine in a way that nothing else is. It’s a good feeling.

Ann Durham of Tallahassee, Florida, has quit answering the phone in favor of returning to school full-time for a master’s degree in historic clothing and textiles. Now she finds that studying textiles is seriously cutting into her time for making them.

Resources
Spinning Natural Colored Cotton for Dish Towels

Using up odds and ends to make beautiful and useful gifts

by Gisela Evitt
It all began with a file-box full of handspun cotton in all its natural colors (white, cream, greens, and browns), in big and little skeins. Some yarns were as fine as spider webs and some were as heavy as sturdy twine. But there was not enough of any one yarn for a project. When too many partial cones and spools of appropriate yarns clutter my shelves, I get inspired to design and weave a set of dish towels. I plan an interesting sequence of stripes, determine the number of ends of light, medium, and dark, and then plug in whatever goes nicely from the odd remnants on my shelves.

Dish towels make wonderful gifts, so this is an exercise I repeat periodically. I always put on a warp long enough for six towels and, to avoid boredom, never weave two the same.

Towels need a certain minimum weight and thickness to be useful (something similar to a commercial 10/2 or 10/3 yarn). So the yarns can’t be too fine and, as I spread out the myriad skeins from my cotton box—products of countless workshops, demonstrations, experiments, and the like—I find very few that meet even that modest requirement of grist. So I sort the collection by color, lay aside the few skeins that do have adequate yardage and grist to use as singles weft for towels and wind the rest onto large paper quills on my electric bobbin winder.

Then the fun begins as I spin two- and three-ply yarns from these singles stored on quills on my modified lazy kate, turning them into all sorts of yarns sturdy enough to serve as warp while also mixing color, texture and grist at will. The result is a wide choice of smooth, textured, plain to varicolored yarns ready to be translated into interesting warps. I finish all my new skeins with a hot, soapy wash and lay them out to dry.

When combining varied cotton yarns, one has the assurance that their shrinkage, elasticity and general behavior will be pretty much the same, whether spun from roving, unprocessed loose fiber, puni (an Indian term for a cotton rolag), or carded mass.

In this project, I had enough yarn for two seven-yard warps in two different stripe arrangements. To fill out some of the stripes, I used a little commercial, unmercerized, unbleached, natural cotton, and I used the same commercial yarn for weft in several of the dozen towels because this collection lacked enough yardage of any one kind for so many towels.

I used rag wefts to weave spacers (less than one inch) between towels (cardboard strips or plastic bags will do nicely, too). Because I do not have ready access to a sewing machine, I whipped each towel at beginning and end with an overhand stitch. That way, when the long woven strip comes off the loom, I can simply cut down the center of each separator to free the towels. I wash the towels vigorously in hot, soapy water, then hang them over the shower rod until they are no longer dripping. I give them a good, hot pressing while they are still damp, and then they are ready to hem. What with shrinkage and hemming, the finished towels measure about thirty by eighteen inches. 

Gisela Evitt has been a weaver since 1965 and learned to spin five years later when a friend “parked” her beautiful wheel in Gisela’s home when she left on a year-long trip abroad.
Gisela plies singles together to get the grist of yarn she needs for her cotton towels.

Finished size: 30 by 18 inches (on the loom, the towels measure 36 inches by 20, and the width in the reed is a bit over 20 inches).

Fiber: Natural colored cottons.

Warp yarn: 2- and 3-ply cotton yarns measuring 36 wraps per inch, 3,900 yards per pound.

Weft yarn: Handspun singles or commercial 2-ply yarns.

Sett: 20 ends per inch, sleyed 2 to a dent in a 10-dent reed.

Weave structure: Straight twill.

Notes: My standard setup for towels can be adapted for a loom with 4 or more harnesses. On 8 harnesses I thread 51 repeats of straight twill (I use an odd number so there is a central stripe), which requires 408 ends in all. My own loom has 10 harnesses. I use the extra 2 harnesses solely for threading 2 ends at each side in plain weave for good selvedges, no matter the twill treadling. Thus my warp totals 412 ends. At the start and end of each towel I weave ⅛ inch with a fine cotton weft to make the turn-under part for a 1-inch hem. A 7-yard warp gives me 6 towels, each 35 or 36 inches in length.

Spinning Cotton

Cotton has the reputation of being difficult to spin. That may be true if your experience is limited to spinning long fibers, but I find that even then spinning cotton is not difficult, only very different. In many cultures, especially in warmer areas where wool is not practical, cotton is the natural fiber of choice.

In truth, cotton fibers are very short compared to wool. They usually range in length from ½ to at most 2 inches or so, while wool is seldom as short as 2 inches and may range up to 10 inches or more. Cotton's shortness means that the fibers need much more twist per inch than long fibers in order to hold together. Also cotton must be spun into a finer yarn so the twist can hold each fiber in place. If the yarn is too heavy, the cotton fibers may be too short relative to the diameter of the yarn to be gripped firmly by the twist.

I spin cotton almost exclusively on a Scotch tension wheel with flyer lead. I let the twist take the fiber out of my hand, either pulling back on the fiber-holding hand or pulling the finished yarn toward the orifice with the other hand. As with any yarn, treadling speed and winding-on speed must be coordinated. This method works with all cotton fiber preparations, from the raw cotton boll to commercial sliver.

The drafting triangle for cotton is so small that it is difficult to see and, in effect, the approaching twist almost eats the fiber out of one's fingers. The hand holding the fiber source simply supports it and keeps it from falling on the floor. Clutching the fiber source too firmly prevents the smooth flow of fibers toward the orifice as the twist converts them, like magic, from a loose and disconnected mass into a cohesive length of yarn.

The character of the final yarn (smooth or textured) depends much more on how the fiber was prepared than on how it was spun. Naturally, the amount of twist that goes into the yarn (beyond the minimum necessary for the yarn’s basic integrity) is up to the spinner and is a major factor in determining the characteristics of the finished yarn.

So, find a comfortable chair, preferably with resting places for your arms, sit back, and begin treadling on your well-oiled wheel. Let that eager, active twist eat the fuzz right out of your hand. With a bit of practice you will find spinning cotton relaxing and intoxicating.
Spinning Cotton for a Mimbres Tee

Kicking one habit leads to another

by Jill Holbrook

In a way, this sweater began twenty years ago when I decided to quit smoking. By then I was comfortable with my spinning wheel and had completely forgotten about the handspindle that I frequently dropped during my early learning experiences with spinning. The smoking cessation program I was following recommended substituting an activity to help break the habit of picking up a cigarette. The program suggested doodling, but that quickly became boring. I thought that if I put support spindles in places around the house where I typically smoked, then I would pick up the support spindles instead of a cigarette. I decided that the support spindles would be better than drop spindles because I could use them while I was sitting down and would be less likely to drop them. This practice worked very well for me. Not only did I love the support spindles and was able to quit smoking, but I soon had enough yarn to make a sweater.
Feeding a spinning habit
I exchanged my smoking habit for a spinning habit. I had several wheels and my collection of support spindles, and then top whorl spindles intrigued me so I had to try them. My skill had improved—I wasn’t constantly dropping the spindle—so I began collecting drop spindles, too.

My friend Joan Ruane gave me several spindles when she closed her spinning and weaving shop in Tucson, Arizona. Among them was a top-whorl spindle with a carved notch instead of a hook. Another spinner from our local guild, Esther Hughes, had the spindle’s twin. She said Harry Linder (of cotton spinning fame) made hers, and it was her favorite for spinning cotton. Following her lead, I tried my spindle with cotton—it instantly became my favorite spindle and cotton became my favorite fiber.

The spindle was light and well balanced and clearly handmade. In fact, it looked like something I could make. After all, I have made knitting needles and support spindles using dowels, skewer sticks, and glass and clay beads. With the help of another friend, Lura Moore, and her power tools we soon had several shafts with the carved notch top for these spindles. Next I experimented with different materials for whorls. The original spindle has a 3-inch whorl and looks like a coaster. I looked at all kinds of coasters but could find nothing similar. I did find some carved wooden décor items, and while they were 4 inches in diameter, they did work. In my whorl search I also found a roll of polymer clay with a flower design in the center. The roll is designed to be sliced into buttons, rolled into beads, or cut and applied like a mosaic to a flat surface. I sliced it and molded the slices together to form a spindle whorl with a 3-inch diameter. I like this spindle a lot because it is very pretty and well balanced.

Spinning cotton
To test this handmade spindle, I used some brown Fox Fibre cotton sliver purchased from Sally Fox. The sliver was well prepared and very easy to spin using a short-draw drafting technique. When you’re spinning cotton on a handspindle, hold the fiber lightly so that it doesn’t mat. Draft steadily to keep the twist from progressing past the drafting triangle using the other hand to pinch the yarn to control the twist. Whether I’m using short draw or long draw, I work with my hands at least 6 inches apart. I move them closer if I need to untwist a bit when I let the twist get into the drafting zone accidentally. Remember to relax while you’re spinning cotton. Once you get a feel for the light touch needed while drafting, all you need to do is get enough twist into the yarn. And practice, practice, practice. The lovely thing about spinning is that you can always find uses for practice yarn.

Once the spindle was full, I transferred the yarn to bobbins and used a lazy kate to ply the two together on my Lendrum wheel using the middle whorl on the regular flyer (8:1 ratio). I was very pleased with the lovely soft yarn. Amazingly, in just a few months of spinning here and there in my free time, I had four skeins of brown cotton yarn, and I began to think about the sweater.

Designing a cotton tee
I find that cotton is the most comfortable fiber to wear year-round in the Southwest. Loose sweaters in T-shirt style are easy to knit and comfortable in hot climates. For the design of the Mimbres Tee, I was inspired by the Native American and prehistoric art that surrounds me here. The art of the Mimbres people (most often seen in their striking pottery) seemed perfect for the sweater because the graphic repetitions, reflected designs, and dark and light contrasts work well with two colors of yarn, and to complement my brown yarn, I had some beautiful and easy-to-spin white Pima cotton sliver from the Fiber Factory in Mesa, Arizona.

In a few weeks, using the very fast flyer of my Lendrum wheel and a long-draw technique, I spun three skeins of a two-ply white cotton in the same weight as the spindle-spun brown yarn. I was careful to match the weight of the spindle-spun yarn to the other yarns. I matched the weight of the brown yarn with the middle whorl of the Lendrum wheel, and I used the large whorl for the white yarn to keep the twist on the final yarn lower than on the brown yarn. When I finished the shirt, the contrast between the two yarns was very pleasing.

Finally, I knitted the Mimbres Tee on the Lendrum wheel with my handspun yarn. The shirt is a top-down knit and was worked with the white yarn in the center and the brown yarn along the outside edge. The result of my effort was a very pretty cotton T-shirt.
brown by keeping a sample by my wheel. I began knitting the sweater as I continued to spin white and brown cotton. As it turned out, I had more than enough yarn, which I wound up by simply washing in warm water with a mild hand dishwashing soap, rinsing three times with a bit of vinegar in the second rinse to balance the alkalinity in the soap, and hanging the skeins without weights to dry.

I played with different designs on graph paper, eliminating some and expanding others. At one point I had five patterns, but, when I tried to organize them into a sweater, they were too busy. I finally chose two of the five and arranged them in a pleasing design. Then I swatched to establish the gauge. I was still thinking I had to conserve yarn, so once I had the gauge, I ripped out the swatch to use the yarn in the sweater. I adjusted the pattern motifs to fit within the circumference of the sweater and used a schematic to visualize where I’d place patterns within the number of stitches. I knitted the sweater in the round with steeks\(^1\) for the armholes and neck shaping. Once I finished the body, I staystitched the steeks, then cut them.

I picked up the stitches for the sleeves and neck border and knitted them in the round. I finished the sweater by sewing down the steek edges and weaving in the yarn ends, then handwashed it as I had the skeins and laid it flat to dry.

I modeled the sweater at the Old Pueblo Knitters’ Fashion Show in February of 2002 in Tucson, Arizona. Then I entered it in the juried show at the Arizona Federation and Weavers’ conference, Fibers Through Time in March of 2002 in Coolidge, Arizona, and was surprised and delighted by an award for excellence in spinning. I am pleased with the sweater because it is very soft, lightweight, and comfortable to wear.

Cast on 322 sts with waste yarn and a provisional cast-on technique. Change to light and dark cotton and, knitting in the round, work pattern following charts 1 and 2 for fifteen inches. Cast on 8 sts at each side for steeks at armholes (see diagram on page 18 for placement of armholes). Continue in pattern for another 6\(\text{”}\), working steek sts by alternating light and dark with two sts of same color to mark center of steek. Place 44 sts at center front onto holder and then cast on 8 sts at center front for neck steek. On next rnd, begin decreasing 1 st at each side of neck steek every row 4 times, then every other row 12 times. Place 70 center back neck sts on holder. Staystitch the steeks, and then cut them. Seam shoulders (44 sts each). Pick up and knit 140 sts around each armhole for the sleeves and work in lightning pattern (chart 3) only for 5\(\text{”}\). Work 1\(\text{”}\) of corrugated rib (knit 1 light, purl 1 dark) and bind off in ribbing. Neck edge: On right side and starting at left shoulder, pick up and knit 37 sts along neck, knit the 44 center front sts, pick up and knit 37 sts along neck edge, and then knit the 70 center back sts = total of 188 sts. Work

---

\(^1\) For how to work steeks or extra stitches in two-color knitting, see Ann Feitelson’s, *The Art of Fair Isle Knitting: History, Technique, Color & Patterns* (Loveland, Colorado: Interweave, 1996), pages 61–63.
in corrugated rib for 1” and bind off in ribbing. Remove waste yarn at hem and, with brown cotton, purl one row then knit 1 inch. Bind off, fold hem under, and tack sts inside for hem. Cover and secure steek stitches on wrong side with herringbone stitch. Weave in yarn tails on wrong side.

**Jill Holbrook** of Tucson, Arizona, was a pediatrics nurse for nearly thirty years when she decided to go back to school and earn a master of science degree and certification as a family nurse practitioner. She began knitting in her teens and has had some type of knitting project going ever since. In 1977 she learned to spin in fits and starts, but gradually became more comfortable with the craft after she found spinning groups in her area.
Some years ago my friend Karen Hust kindly let me photocopy the knit cap she bought while on a trip in the Andes. I didn’t intend to knit a duplicate but have used the pages as a motif library. The motifs (animal, plant, and geometric figures) all have about the same number of rows and are placed in bands up the cap. Each band sports a variety of motifs. I chose three for my bag and modified them to fit the bag’s size.

I spun all the colors of Peruvian cotton on my Lendrum wheel with a 15:1 ratio and plied at a 17:1 ratio. I had to check frequently to be sure the singles had enough twist; the very short rose brown was especially problematic. The two-ply S/Z yarns averaged 250 yards per ounce and 25 to 27 wraps per inch. Using an S/Z yarn makes it easier for me to crochet without the yarn splitting as I work. In this case, with the short-stapled Peruvian cottons, this was particularly important—if the yarns unplied, they could lose twist and disintegrate.

All of the colors except the light brown were finished by boiling for 30 minutes in water with about a teaspoon of dish soap added to help the cotton absorb the water. After the water cooled, I removed the skeins, lightly squeezed out the excess water, and pinned them to the clothesline to dry, turning them when the top half was mostly dry. I steamed the light brown to keep the color intact. All of the other colors darkened as the skeins boiled. The medium brown is the same fiber as the unboiled light brown.

Begin at base of bag. With dark brown, ch 6 and join into ring. Do not join rounds with slip st and ch 1—continue around in pattern instead. Mark beginning of round and move marker up each round. Each round is worked in single crochet through back loop only. When carrying a strand, insert hook into back loop of stitch, under carried strand, and then catch working strand. Occasionally pull carried strand so that it won’t show on RS; don’t pull too tightly, though, or you will pull in the fabric. The bag will be more even if you carry a strand even on single-color rounds.

Round 1: Sc 6 in ring.
Round 2: Work 2 sc in each sc around = 12 sts.
Round 3: *Sc 1, 2 sc in next sc; repeat from * around = 18 sts.
Round 4: Join green. *2 sc with green in first sc, 2 sc dark brown in next sc; repeat from * around = 36 sts.
Round 5: *1 sc green, 2 sc green in next sc, 2 sc dark brown; repeat from * around = 45 sts.
Round 6: *3 sc green, 2 sc dark brown in next sc, 1 sc dark brown; repeat from * around = 54 sts.
Round 7: *2 sc green, 2 sc green in next sc, 3 sc dark brown; repeat from * around = 63 sts.

Project Notes

Fiber: About ¼ oz each: dark brown, medium brown, light brown, rose brown, avocado green, and white Peruvian organic cotton roving.
Preparation: None.
Drafting method: Double drafting (a modified long draw) from ends of roving.
Wheel: Lendrum double treadle.
Ratio (singles/plying): 15:1 for singles and 17:1 for plying.
Plied twists per inch: 5.
Plied wraps per inch: 25–27.
Total yardage: About 62 yards of each color.
Yards per pound: 4,000.
Yarn classification: S/Z 2-ply fingering weight.
Yardage used: 25–50 yards of each color.
Hook: U.S. size 5 (1.75 mm) steel hook.
Gauge: 11 sts and 9 rows per inch.
Finished Size: 5” x 5¾”.
Notions: Locking ring stitch marker; tapestry needle; if desired, 37 size 8º silver seed beads (make sure beads slide over a doubled strand of yarn) and a big-eye beading needle for stringing beads.
Round 8: *4 sc green, 2 sc dark brown, 2 sc dark brown in next sc; repeat from * around = 72 sts.
Round 9: *3 sc green, 2 sc green in next sc, 4 sc dark brown; repeat from * around = 81 sts.
Round 10: *5 sc green, 3 sc dark brown in next sc, 2 sc dark brown in next sc; repeat from * around = 90 sts.
Round 11: *1 sc dark brown, 3 sc green, 1 sc dark brown, 6 sc dark brown including an increase in center stitch of the five dark brown single crochets from round below; repeat from * around = 99 sts.
Round 12: *2 sc dark brown, 1 sc green, 8 sc dark brown; repeat from * around.
Round 13: Sc around with dark brown, increasing 1 st over each green st = 108 sts.
Round 14: Join medium brown and work 2 sc dark brown, 2 sc med brown around. Cut dark brown.
Round 15: Sc with med brown around.
Round 16: Sc with green, increasing in every 36th st = 111 sts.
Round 17: Sc with green. Cut green.

Now, with medium brown and white, work Rounds 1–15 on the chart (begin at bottom right-hand corner and work right to left on every round). After completing Round 15, cut white and attach green. Work Round 16 with medium brown, carrying green around. Cut medium brown and attach rose brown. Work Round 17 with green, carrying rose brown, and work Round 18 with rose brown, carrying green. Cut rose brown and add dark brown. Work Round 19 with green, carrying dark brown. Count to be sure you still have 111 sts.

Next work rounds 20–27 with light and dark brown. Finish with 1 round each dark brown, green, and rose brown. Cut carry color and work a round of holes for cord: ch 5, *skip 2 sc and dc in next sc (work through both loops of sc), ch 2; repeat from * around and finish by connecting last ch to third chain of starting chain with slip stitch. Next round: *3 sc in each ch2 loop around = 111 sts. For the final round, you can either work another round of single crochet with a little picot (ch 3, slip st last ch to first) in the center sc of each group of 3 or cut yarn and string 37 beads onto it. Reattach yarn and sc with bead into first sc and then sc 2. To sc with bead: pick up loop through next st, bring up bead, yarn over hook, and pull through both loops on hook, pulling bead through each loop (you may actually need to push it through) and then slide bead onto front leg of loop left on hook.

Cut yarn and weave in tail on wrong side.

Twisted cord

Cut 3 strands 90 inches long (I used a strand each of green, dark brown, and light brown). Knot ends and attach one end to a hook or doorknob. Twist from the other end until the cord is very well twisted. Carefully fold cord in half and let it twist on itself. Knot and trim ends; thread cord through hole round at top of bag.

Carol Huebscher Rhoades dreams of Silk Road adventures while she spins and embroiders in Madison, Wisconsin.

Carol spun all the colors of Peruvian cotton with a high amount of twist so that they would not unply and disintegrate as she crocheted the bag.
Spin-Off brings you:

- The best teachers teaching the best spinning tricks and techniques
- The newest information: fibers, tools, books, events, people, and places
- The warmest, fullest stories of spinning history and tradition
- The coolest handspun projects that you can make

Call (800) 767-9638 or go to spinoffmagazine.com