



# ALPACA

## An Ancient Luxury

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Some of the information may be outdated.

Charlotte Quiggle

"CITIES OF GOLD!" That was the cry raised by the Spanish conquistadores when they came to the New World in the sixteenth century. Little did they know that for thousands of years there had been "gold on the hoof" high on the Andean plain. This gold was alpaca fiber, from animals of the same name. In fact, alpaca fiber was so prized by the Incas for its luxurious softness and durability that they reserved it for the noble class. But the conquerors ignored these indigenous riches, pushing the alpacas to higher and higher ground to make room for their favored Merino sheep from Spain. As a result, alpaca fiber remained virtually unknown beyond the Andes until the mid-nineteenth century when a British textile merchant, Sir Titus Salt, discovered its wonders. Since that time, alpaca has joined cashmere and silk as one of the most luxurious fibers in the world.

### The Alpaca Family Tree

Domesticated over six thousand years ago, alpacas have a family tree that stretches back an impressive forty million years, when their ancestors were evolving on the Great Plains of North America. Although the progenitors who stayed in North America became extinct by the end of the Ice Age (about 11,000 years ago), those who left earlier in two groups, about 2.5 million years ago, survived and thrived. The animals in the first group took the Bering land bridge to Asia where they eventually developed into two distinct species of genus *Camelus*: the one-humped dromedary and the two-humped Bactrian (from which we get the prized camel hair). The animals in the second group went south and evolved into the four species of genus *Lama* (all humpless): the vicuña and guanaco, which are found only in the wild, and the llama and alpaca, which, along with the sheep, are among the longest-domesticated animals on earth. Ninety-eight percent of the world's current 3.5 million alpacas still live in South America—in Peru, Chile, and Bolivia—in part because, until 1984, the export of alpacas from these countries was illegal. While all four members of the genus *Lama* produce fiber that can be spun and used for knitting, only alpaca fiber is commercially produced and widely available.

### Getting to Know Alpacas

Highly social and hierarchical, alpacas are by nature curious and intelligent beasts who communicate with each other by humming, spitting, and making certain ear flicks and body movements. They are very friendly with humans, entertaining to watch, generally healthy and easy to care for, and relatively small in size (about three feet tall and 100 to 175 pounds). Having adapted to the inhospitable Andean altiplano (highlands), alpacas are incredibly efficient in converting *ichu*, the highland grass, to protein and water, and thus do not need to drink a lot. Some of their wild kin, the guanaco and vicuña, can go their entire lives without even a sip of water. Alpacas have three-compartmented stomachs and, like cows, chew their cud. Unlike llamas, guanacos, and vicuñas, which have a top coat of coarse, prickly guard hair covering an extremely soft downy undercoat, alpacas have only a single coat that comes in twenty-two natural colors, ranging from white to jet black with shades of blue-gray, caramel, red, and brown in between. White and fawn alpacas now predominate because their fiber can be dyed in the broadest ranges of colors for the fashion industry.

There are two distinct breeds of alpacas: the Huacaya (95 percent of all alpacas), whose fluffy hair sticks straight out from their bodies, and the Suri, whose hair hangs down from their bodies in dreadlock-like ringlets. Virtually all the alpaca yarn used by knitters comes from the Huacaya, whose fiber has more crimp (organized or uniform waviness) and is more wool-like than the fiber of the Suri, which has absolutely

no crimp and is thus inelastic. Shorn every year, an alpaca will produce a fleece that weighs between four and eight pounds; the staple length—the length of the sheared locks without stretching or disturbing the crimp—is between four and eight inches. In comparison to the wool industry, which produces about two million tons of fiber each year, the alpaca industry yields about four thousand tons a year.

### Characteristics of Alpaca Fiber

The most valued attribute of alpaca fiber is its handle, or how it feels to the touch—creamy, silky, soft. While many factors affect the handle, the diameter of the fiber (fineness) is most important and is measured in microns. (A micron measures one-thousandth of a meter; to get a sense of what that looks like, consider that most human hair measures about 64 microns). The fiber used to make most alpaca yarn available to knitters ranges from the ultra-luxurious royal baby, which is never more than 18 microns, to super-fine, which averages 25.5 microns. It is interesting to note that alpaca fiber exceeding 34 microns is classified as “llama” (or llama-grade alpaca) and that a yarn labeled “llama” may actually be from an alpaca and not a llama at all. Alpaca is also valued because it is lustrous, extremely strong, very warm (seven times warmer than wool thanks to microscopic pockets within the fibers that trap air), drapes beautifully, takes dye extremely well, and is not prone to pilling. Because alpaca fiber has nowhere near the amount of crimp that wool has, it is much less elastic than wool. Paradoxically, alpaca yarn can also be lightweight or heavy, depending how it is spun: Spun fine, it is lighter in weight and warmer than a similarly spun wool; this is why a lightweight lacy garment made from alpaca can be so incredibly warm. Spun to a worsted weight, alpaca is still extremely warm, but it becomes noticeably heavier than a similarly spun wool yarn. Basically, this is because the crimping wool fibers naturally elbow each other out of the way when combined for spinning, creating loft, whereas less wavy alpaca fibers naturally lie together densely when combined for spinning (just as curly hair on humans looks fuller than straight hair because of all of the spaces between the curls). Many people who are sensitive to the “scratchiness” of wool are perfectly comfortable wearing alpaca because the scales on the outside of the alpaca fiber are smaller, much less defined, and overlap less than the barbs on wool, which makes alpaca smoother than wool and also contributes to its luster and drape. Since alpaca contains no lanolin, those who are allergic to the substance in wool can wear alpaca with ease.



### Alpaca Blends

To maximize its uses, alpaca is commonly blended with other fibers, especially wool. According to Sandy Boynton, owner of Earthtones, a premium handspun yarn company, a ratio of about seventy-percent alpaca to thirty-percent wool provides the elasticity that the alpaca lacks without negating its softness, silkiness, drape, durability, and warmth. Other fibers commonly blended with alpaca are mohair, which lends additional luster and strength; silk, which offers luster; and cotton, which makes alpaca less warm, thus more of an all-season yarn.

### Knitting with Alpaca

The best way to get to know a fiber is to knit with it. As you plan and execute your alpaca projects, keep the following guidelines in mind. While they are not hard and fast rules, they are useful strategies to consider as you familiarize yourself with this ancient fiber.

- ◆ Knit a project that takes advantage of the best alpaca has to offer. Scarves, shawls, and afghans all benefit from alpaca’s softness, warmth, durability, drape, and resistance to pilling. Baby alpaca is especially good for garments worn next to the skin.
- ◆ When you’re knitting garments to wear indoors, use fingering or sport weight yarn. Save the worsted weight and bulky for outerwear, unless you tend to be cold indoors or keep the heat in your home set low, in which case you may appreciate the warmth of the heavier yarns.
- ◆ For a lightweight but very warm garment, use open stitches, such as lace, eyelet, and drop-stitch patterns. Remember that highly textural stitches will not “pop” the way they do in wool. Also, think carefully about using any overall patterning of dense stitches (such as slipped stitches or cables) because they will add weight and increase a sweater’s tendency to grow. For alpaca, such stitches often work better as borders or isolated design elements.
- ◆ Because alpaca lacks elasticity, try working ribbings especially tight, twisting the stitches to “lock” them into place. Also consider non-ribbed edgings.
- ◆ If you are doing color work, think intarsia rather than stranded knitting. The double-thick fabric of stranded knitting will make a garment incredibly warm and heavy.
- ◆ To hide ends of yarn and anchor them in place, especially in intarsia, weave them into the back of the knitted fabric in a zigzag fashion (first in one direction, then back in the opposite direction). Because alpaca is more slippery and less flexible than wool, the ends will want to work themselves out.

*Far left: A Huacaya alpaca from Tregellys Fiber Farm in Hawley, Massachusetts, and an assortment of alpaca yarns (top to bottom): Russi Sales Heirloom Alpaca (pink), Trendsetter Filanda (blue), Switzer-Land Custom Dyed (multi-colored), Reynolds Andean Alpaca (bright rust), Anny Blatt 100% Alpaga (light tan), Classic Elite Inca Alpaca (green and gold), Chase Tavern Farm Alpaca (brown), Plymouth Indiecita Alpaca (dark rust), Haneke Melange (grape), Blue Sky Alpaca 100% Alpaca (cream).*

*This page: Alpaca blends from Sandy Boynton of Earthtones. Boynton formulates her blends so that the natural colors of the alpaca are maintained.*

◆ Consider knitting garments in pieces rather than in the round—the seams lend support and help diminish the lengthwise stretch. Likewise, instead of grafting shoulder seams, try a three-needle bind-off. Reinforcing shoulder seams with either ribbon or I-cord helps to keep the weight of sleeves from stretching out the shoulder and neckline. Expert knitter, designer, and instructor Joan Schrouder recommends avoiding potential shoulder problems altogether by knitting yoked or raglan sweaters. She also suggests knitting the sleeves from the top down, which makes them easy to shorten should they stretch.

◆ Since stitches grow much less in width than in length, Kathy Haneke of Haneke Wool Fashions suggests knitting garments sideways.

◆ When you're knitting cardigans, avoid zippers or use them with caution. The alpaca may stretch but the zipper won't, resulting in undesirable blousing. Also avoid heavy buttons that may drag a buttonband down. When you're making cardigans in heavier-weight alpaca, Schrouder suggests picking up and knitting a garter-stitch buttonband perpendicular to the body grain. To offset potential stretching, she also suggests knitting into the back of each and every stitch of the buttonband to twist the stitches.

◆ Cindy Lavin of Chase Tavern Farm Alpacas recommends using wooden needles for knitting with alpaca because they provide a little more resistance to the slippery yarn than metal needles. She also advocates roughing up the wooden needles a slight bit with extremely fine sandpaper. Since some alpaca yarns tend to split, knit in a well-lighted room and use blunt-tipped needles in a color that contrasts with the yarn.

◆ Swatching with alpaca: Since fabric knitted with alpaca tends to grow lengthwise, it is essential to learn all you can from your gauge swatch. To begin, make a large swatch—preferably 10" by 10". After washing the swatch in the same manner you intend to wash the garment itself, weight and hang the dried swatch to mimic the effect that gravity will have on the finished project. One easy method: Thread double-pointed needles

through the cast-on and bind-off edges of the swatch; cut two lengths of yarn that are about two to three times the length of the double-pointed needle; run the first length of yarn through a 50-gram ball of yarn and tie the two ends to the bottom needle; tie the two ends of the second piece of yarn to the two ends of the top needle. Hang this assemblage—from the middle of the yarn on top—from a hanger, doorknob, or chandelier. Only after doing all this should you take your stitch and row gauge. While this technique may seem like a lot of trouble, measuring the hanged gauge better ensures the eventual success of the project, protecting you from the nasty surprise of unexpected vertical stretch and horizontal narrowing.

### Cleaning and Care of Alpaca Garments

Since moths love to eat protein fibers like alpaca, especially dirty fibers, it is important to keep your projects clean. Washing alpaca is fairly standard. Hand-wash according to the yarn manufacturer's instructions or as follows: combine lukewarm water with a gentle dishwashing detergent like Ivory Liquid in a tub (or sink). Place the alpaca project in the tub and soak for about thirty minutes. Gently squeeze the water through to loosen additional dirt, then drain the water, and squeeze again. Gently lift the project, supporting it from below, taking care not to let it stretch. Refill the tub with warm water, place the project in the water, and gently squeeze to remove remaining suds (repeat if necessary until all the suds are gone). To hasten the drying process, roll the project between bath towels and stand on them to force out as much water as possible. Lay the project on a flat surface away from direct sunlight and away from any direct heat sources in an area with good air circulation; pat back into shape, double-checking dimensions with a tape measure to ensure that the project dries to the desired size. If handy, use a fan to circulate the air around the project. ∞

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## SOURCES for ALPACA YARN

*Some of this information may have changed since original publication date (2000).*

*Following are the sources for the yarns shown on pages 1–2. If you cannot find these yarns in your local yarn shop, contact these companies and they will direct you to a retailer or mail-order source.*

**Anny Blatt**, 7796 Boardwalk,  
Brighton, MI 48116; (248)  
486-6160; (800) 531-9276.

**Blue Sky Alpacas**, PO Box  
387, St. Francis, MN 55070;  
(888) 460-8862.

**Chase Tavern Farm Alpacas**,  
267 Academy Rd., Bowdoin,  
ME 04287; (207) CTF-PACA.

**Classic Elite Yarns**, 300A  
Jackson St., Lowell, MA  
01852; (800) 343-0308.

**Colorful Stitches/Earhtones**,  
48 Main St., Lenox, MA  
01240; (413) 637-8206.

**Haneke Wool Fashions**, 630 N.  
Black Cat Rd., Meridian, ID  
83642; (800) 523-9665.

**JCA/Reynolds**, 35 Scales Ln.,  
Townsend, MA 01469; (978)  
597-8794.

**Plymouth Yarn Co.**, PO Box  
28, Bristol, PA 19007; www  
.plymouthyarn.com.

**Russi Sales**, PO Box 4199,  
Bellingham, WA 98227; (800)  
950-1078.

**Switzer-Land Alpacas**, 1236  
Glacier View, Estes Park, CO  
80517; (970) 586-4624.

**Trendsetter Yarns**, 16742  
Stagg St. #104, Van Nuys, CA  
91406; (818) 780-5497.