Process of Dyeing Valuable Soft Underwool of Musk Ox

By JOYCE ZIMMERSCHIED

Hot water splashed into the plastic bucket, building up a mound of soapsuds. A gray-brown scarf was tossed into the pail, followed by a series of caps and tunics. The process had begun.

What looks like the setting for every mad scientist movie ever produced is really something much more innocent – the site of the University of Alaska's qiviut dyeing. Qiviut, for the uninitiated, is the soft underwool of the musk ox. And the dyeing is done by Mrs. Fran Reed, a Fairbanks resident.

Oil and dirt floated off the garments as Mrs. Reed scrubbed them gently in the soapy water. They also get wet enough for the dye bath to take properly when washed.

The next step was mixing up these baths. How many and which colors are determined by the amount and kind of qiviut needed. Into large pans of water, Mrs. Reed poured carefully weighed-out amounts of acetic acid and sodium sulfate.

The color solution then swirled in, staining the water with cranberry red, teal blue and willow green.

Cooked over small burners for half an hour, like so many pans of rainbow-colored stew, the natural color of the original qiviut gives way to whichever shade the dye bath happen to be.

Besides the three already mentioned, others include copper, purple, charcoal black, and any number of specially-requested shades. About the only color not available is white, since to make this, the qiviut must be bleached, which can sometimes destroy the fibers.

Stirring the vats to distribute the colors evenly, Mrs. Reed explained that she had been doing this project for a little over a year. But the Musk Ox Project itself has been going since 1964, after a 10-year study to determine if it would be worthwhile to domesticate the animals, first captured in 1958 in the Canadian barrens.

Pulling the garments out of their baths, Mrs. Reed carefully poured a small amount of formic acid into each container. The solutions bubbled and hissed like a witch's brew before the clothes were put back in to cook for another half hour.

At the end of this time, she poured the dyes down the drain and rinsed out each garment, starting with hot water and gradually switching to cold.

The last step is laying out the caps, scarves and tunics on lengths of paper toweling to drain and dry. The towels are rolled into cylinders and carried to the project office for final drying and blocking. From start to finish, it takes about three hours to do an average batch.

Dyeing the garments is only one small step for the whole project. Also involved are gathering 500 to 1,000 pounds of wool every two years or so, spinning it into yarn and sending the yarn to village women for knitting into the lightweight but warm wearing apparel so popular with Alaskans.

Each village has its own special pattern, ranging from the Mekoryuk scarves designed from a 1200-year-old ivory harpoon head to the Pel..tuk, a smoke-ring scarf made for formal occasions.

Special requests are also filled such as the floor-length white gown worn by Susy Crosby in a recent issue of the Saturday Review science magazine.

Because of its rarity, and because of the work involved, qiviut doesn't come cheaply. A small cap costs $20, while a dress-length tunic may run as high as $135. But money from the sales goes not only to the retailer, but also to Oomingmak the co-operative of Native women who knit the garments.

Since, in some cases, what these women make is their entire income, it is money well-spent.

The Project, currently involving 119 musk ox and 11 villages, is continuing to grow. It may even be growing beyond the University's capabilities of coping with it, according to Mrs. Helen Howard, secretary to John Teal, project director. "Because of the difficulty of preparing skeins for dyeing, we may have to have some done commercially and have Fran (Mrs. Reed) do the special work," she said.

But, whatever the problems, nobody has any doubts that the project is a useful and profitable one.