

# TEXTILES AND APPAREL NEWSLETTER

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## Announcing

### Summer 2005 Textile Exhibitions

#### **Extreme Textiles: Cooper-Hewitt, NYC (April 8 - October 30, 2005)**

The exhibit *Extreme Textiles* highlights innovations in textiles and how these technologies are revolutionizing the fields of architecture, apparel, medicine, transportation, aerospace, and the environment. If you are in NYC, visit the exhibit at the Smithsonian Cooper-Hewitt, National Design Museum, Fifth Avenue at 91<sup>st</sup> Street. Hours: Tues through Th - 10AM to 5PM; Fri - 10AM to 9PM; Sat - 10AM to 6PM, and Sun - noon to 6PM. Fee: General Admission is \$10, but students and seniors are admitted for \$7. For group tours, call 212-849-8351 or email [chtours@si.edu](mailto:chtours@si.edu). If you can't make the trip, learn about space suits, the Mars inflatable rover, protective gloves, 3-D camouflage, and more at the website: <http://ndm.si.edu>.

#### **Textile Exhibits: New York State Fair, Syracuse (August 25 – September 5)**

- UPromise Youth Building/4-H

Youth and adult volunteers from across the state will lead interactive activities with a textile focus. Location is near the Indian/Iroquois Village. Check fair program for exact hours of demonstrations and activities.

| TXA Program              | Counties                        |
|--------------------------|---------------------------------|
| Fabric/Flight Connection | Suffolk and Essex               |
| In-Touch Science         | Yates, Westchester, and Wyoming |
| Plants & Textiles        | Livingston, Delaware, and Wayne |
| Simple Gifts             | Oneida, Otsego, and Herkimer    |

- Agricultural Museum

Enjoy a close look at textile activities from our past, including broom-making, weaving, flax to linen, and soap-making. Location is across from the Coca-Cola Coliseum. Hours are 10AM to 8PM daily.

- Wool Center

Become acquainted with different sheep breeds and learn how fleece is spun into yarn and yarns are knitted into sweaters.

Open 10AM - 10PM.

## ENGAGING YOUTH

### NYS Make It Yourself with Wool

JULIE HOUGH, 4-H Educator, CCE - Dutchess County

Please encourage 4-H'ers and others in your area to join the annual NYS Make It Yourself With Wool Contest. This event will be held Saturday October 15th from 10am to 2pm at the 33rd Annual Sheep & Wool Festival at the Dutchess County Fairgrounds, in Rhinebeck, NY. The national contest will be January 26-28, 2006 in Phoenix, AZ. Carefully read the enclosure for contest requirements and address questions to Mary Kelly, 87 Old Post Rd., N., Red Hook, NY 12571. Tel: 845-758-6296. Email: [mfkelly@webjogger.net](mailto:mfkelly@webjogger.net)

### New 4-H Curriculum: Quilt Quest

CHARLOTTE COFFMAN

Quilt Quest, a new 4-H curriculum for youth ages 10-19, is now available. It was developed by the University of Nebraska Cooperative Extension in collaboration with the Textile, Clothing, and Design Department and the International Quilt Study Center. The curriculum provides how-to information for designing, sewing, cleaning, displaying, photographing, and preserving quilts. It also addresses educational issues such as the experiential learning model, life skills model, and educational standards. Bits of history and personal stories enhance the 284 high-quality color pages, all contained in a three-ring notebook.

If you would like a preview this manual, you have two choices:

1. Visit their website

<http://4h.unl.edu/programs/curriculum/preview/QuiltQuestInbetween.html>

2. Borrow the TXA copy. If you borrow our copy within the next two months, you will be asked to complete a brief evaluation form that the 4-H Office uses in deciding whether to add a curriculum to the list of recommended 4-H resources for NYS. Contact Charlotte Coffman, [cwc4@cornell.edu](mailto:cwc4@cornell.edu), Tel: 607-255-2009.

### TXA Participated in University U

CHARLOTTE COFFMAN

More than 100 eight and ninth graders from across New York visited the TXA Department on June 29-30 as part of University U, Career Explorations. They saw a demonstration of electrospinning, had an opportunity to experience the 3-D body scanner, visited an exhibit of undergraduate work, and contributed data for the *Go Figure!* youth website. Many thanks to the department faculty and staff who assisted, to the 4-H educators and volunteers who chaperoned, and to the youth for their enthusiasm.

### High School Students Explore *Plants & Textiles*

STELLA WOODARD, Extension Community Educator, CCE - Wayne County

Cornell University Cooperative Extension's 4-H Program teamed with the Wayne County Historical Society to teach youth about the history and processes used to turn raw plant materials into useful products such as paper and woven mats. High School students from Wayne, Sodus, Palmyra-Macedon and Lyons School Districts participated in the special workshop Wednesday, May 18th at the Wayne County Museum in Lyons.



Students from Palmyra-Macedon sort plant materials

Students attended a presentation by Jan Towsley of the Rochester Weavers Guild about creating textiles by weaving. This was followed by a tour of the museum, which included a bit of history about the county. The remainder of the day was spent exploring textile construction using various plant materials. Through a hands-on approach, the students built tools, such as molds & deckles for papermaking and looms for weaving. They prepared raw materials — corn husks, recycled paper and leaves—for papermaking and they cleaned, cut, and measured twigs for mat weaving. The tools and prepared materials were then used to create products of their own design. Each student received a packet of information including a list of resources that encouraged addition research into the methods, history, technology, and science of papermaking and weaving.

Staff from Cornell Cooperative Extension Wayne County and the Historical Society visited participating students' classrooms to continue the program. The students shared their research about weaving and papermaking with their peers. They also lead hands-on activities to teach the processes they learned during the workshop.

Editor's Note: The April issue of TXA News featured a description by Pat LaPoint of 5<sup>th</sup> grade students using the new *Plants & Textiles – A Legacy of Technology* activities. This article by Stella Woodard discusses the program's use by high school students. Logon to <http://www.hort.cornell.edu/plantsandtextiles/> to see how you might use this new (and growing) curriculum. To borrow a toolkit, contact Charlotte Coffman, [cwc4@cornell.edu](mailto:cwc4@cornell.edu) or 607-255-2009.

## CONCERNING CONSUMERS

### Rekindle that Passion for Knitting

LINDA OBIOHA and CHARLOTTE COFFMAN

Actresses Cameron Diaz and Hilary Swank do it. Young executives in NYC do it in coffee shops on their lunch break. California commuters do it while riding the train. What is “it” you ask? It is knitting. According to an article by Carol Lee in the New York Times, “knitting is in vogue.” In the article, Lee reflects on her childhood of watching her grandmother knit and how it was always seen as a craft of old women. Today, it’s a whole different story. She states, “In a way, it’s a new trend, but of course it’s one that’s come and gone throughout our history. Today’s knitted fashion trends, like ponchos, helped revive knitting.”

Lee is definitely correct. Everywhere you look you see knitted ponchos, handbags, and the ever-trendy “newsboy” hats and you see groups of newly-minted knitters. Classes are offered at coffee shops, craft stores, school clubs, and local guilds, and via television, CD, and DVD. An abundance of books dedicated to the art of knitting have hit the market. Art galleries feature sculptural knitted pieces. University professors use knitted forms to demonstrate mathematical models. The Knitting Guild Association has seen an influx of younger members over the last three years and a fall 2004 survey conducted by the Craft Yarn Council showed that “the number of women ages 25 to 34 who knit or crochet increased more than 150 percent since 2003. The survey further showed that women ages 25 to 34 account for 33 percent of the 53 million American women who know how to knit or crochet. Although smaller in numbers, men, too, are discovering the relaxation and accomplishment of knitting and even fifth grades boys have joined the craze.

In order to appreciate the knitting boom or even assess knitted garments at the store, you should know some knitting basics. According to an article by Sarah Veblen titled *Know Your Knits*, “these days you can find a remarkable range of knits in various fibers, among them, linen, silk, wool, Tencel, polyester, cotton, and cotton blends.” So what exactly is a knit fabric? Veblen defines it as being “made up of one or more yarns formed into a series of loops that create rows and columns of vertically and horizontally interconnected stitches.” The two types of knit fabric are described as “weft” and “warp,” referring to the direction in which the fabric is made. Veblen explains, “A weft knit—which is what hand-knitted fabric is—is one made with a single yarn that’s looped to create horizontal rows, or courses, with each row built on the previous row. A warp knit is made with multiple parallel yarns that are simultaneously looped vertically to form the fabric.” Weft knits exhibit minimal vertical contrast, stretch, moderate to great amounts of crosswise stretch, and susceptibility to raveling. Some types of weft knit fabrics are the Double knit, the Interlock, the Jersey knit, and the Purl Knit. Warp knits have a flat smooth surface, little vertical stretch, varying degrees of crosswise stretch, and resistance to raveling.

Some types of warp knits are the Rib knit, the Milanese, the Raschel, and Tricot.

**Editor’s Note:** A variety of knitting books and magazines are available at libraries and bookstores. Enclosed is *Knitty Gritty*, a 4-H publication from PennState. Available free from TXA is *Beginning Knitting: Easy Projects for Kids*, a small booklet compiled by Beth Davis. Available for loan, is the CD *Knitting Made Easy*. To borrow the CD or obtain a copy of the booklet, send your request to Paula Smith at [pjs15@cornell.edu](mailto:pjs15@cornell.edu).

#### References:

1. Lee, Carol E. A Pastime of Grandma and the “Golden Girls” Evolves Into a Hip Hobby, New York Times, March 30, 2005.
2. MSNBC. No Needling, Please: Boys Joining Knitting Craze. MSNBC, February 4, 2005. <http://www.msnbc.msn.com/id/6913654/>
3. Veblen, Sarah. Know Your Knits, Sew News, October/November, 2001.
4. Steele-Carlin, Sherril. The Knitting Craze, Preferred Consumer, July 5, 2005. <http://www.preferredconsumer.com/culture/articles/knitting.html>.
5. York, Michelle. Professor Lets Her Fingers Do the Talking, New York Times, July 11, 1005.

### Tencel Goes Mainstream

CHARLOTTE COFFMAN

“What EXACTLY is Tencel?” asked a participant at a recent CCE conference. The discussion that followed reminded me that although Tencel was first mentioned in this newsletter in June, 1993, its availability has grown in the last dozen years and the topic is worth revisiting. Tencel is the trademark of the fiber originally produced by Courtaulds through a decade of research. Later, the fiber was given the generic classification of lyocell, both in Europe and by the U.S. Federal Trade Commission. It was produced in Europe as Lenzing Lyocell. In 2004, Lenzing purchased the Tencel companies and now produces Tencel brand lyocell in Austria, the UK and the USA.

The original TXA article explained that Tencel (lyocell) is a cellulose fiber made from the wood pulp of trees grown in managed (replanted) forests. The process is similar to that for making rayon, but uses a closed-loop solvent spinning process for minimal environment impact. The fabric is durable, comfortable to wear, easy to clean, quick to dye, natural to drape, and very soft. All of those claims appear to have stood the test of time as we watch the popularity of Tencel climb. “More than 20% of our sales are Tencel,” says Norman Campo, owner of the Champlain Clothing Company in Burlington, Vermont. Ellen Flynn of Lenzing Fibers concurs, “We know that 80% of women who purchase Tencel are repeat customers.”

The 1993 article noted that Tencel garments had been available in Japan since the 1980s where it was not uncommon for consumers to pay \$300 for a pair of pants. Today, American shoppers can purchase Tencel garments in high-end men’s and women’s fashions in brands such as Diesel,

jumpers (\$30-\$50); and dresses (\$35-\$70). Those prices might not be cheap but costs have certainly dropped.

The earlier TXA article also stated that manufacturers were hopeful that they could find non-apparel uses for Tencel. That, too, seems to have come to pass with the increase in nonwoven and film applications. Examples include filters, hygiene products, medical wipes, protective clothing, ropes, upholstery fabrics, window treatments, and sausage coverings.

Resources

1. Allison, Lucille. Lyocell, Textile Reference Manual. <http://www.costumegallery.com/Textiles/lyocell.htm>
2. Case, Fiona. Tencel — the Miracle Fiber, INFORM. Vol. 16 (3), p 179. AOCS, Champaign, IL. March, 2005.

## RECALLING TRADITIONS

### The First “No Hands!” Dishwasher

BETH HERGET

Undoubtedly one of the most time-saving appliances of today is the dishwasher. Its first appearance was as an 1850 patent obtained by Joel Houghton. His hand-cranked model was not very effective as it only splashed water onto the dirty dishware. It took a midwestern woman named Josephine Garis Cochran to devise the first practical, functional machine.

Cochran, who was descended from John Fitch the steamboat inventor and who preferred to spell her married name as Cochran, was not a homemaker who invented the machine to ease her dishwashing chores; she was a socialite who had had enough of her kitchen staff ruining her 17<sup>th</sup> century china. In 1886, she took to her woodshed in Shelby County, Illinois to solve the problem. As she explained, "If nobody else is going to invent a dishwashing machine, I'll do it myself."

The first design she created was simple but effective. With only a wire compartment for dishes and a wheel to turn the plates, Cochran had water jets spray soapy water onto the plates as they rotated. Created just in time for the 1893 Columbian Exposition in nearby Chicago, Cochran exhibited in the Women’s Building to great acclaim. The invention was such a hit, the Exposition itself used the new machines in their large kitchens. Soon this time-saving device was commonplace in many hotels and restaurants. The hand-cranked machine made sense for the needs of industrial kitchens, but domestic use did not catch on until the 1950s. Cochran’s invention has obviously been streamlined since its first inception. Cochran’s Crescent Washing Machine Co. successfully marketed their machines for some time and the company’s patents and trademarks are now registered to KitchenAid.

Resources

1. Bellis, Mary. Josephine Cochran, Inventor of the Dishwasher, About Inventors <<http://inventors.about.com/library/inventors/bldishwasher.htm>>
2. Lienhard, John H. Inventing the Dishwater, Engines of Our Ingenuity No. 1476. <<http://www.uh.edu/engines/epi1476.htm>>

## BROWSING WEBSITES

### The Agricultural Health Study

< <http://www.aghealth.org> >

The Agricultural Health Study began in 1994 and has collected data from almost 90,000 subjects — farmers and their families and commercial pesticide applicators in Iowa and North Carolina. The long-term study is designed to “identify occupational, lifestyle, and genetic factors that may affect the rate of diseases in farming populations.” The intention is to provide information that agricultural workers can use in making decisions about their health and the health of their families. Log on to the website to read about how the study was organized, the latest findings, and Fact Sheets.

The study is directed by the National Cancer Institute, the National Institute of Environmental Health, and the US Environmental Protection Agency. It is conducted in Iowa by the Department of Epidemiology at the University of Iowa and in North Carolina by Battelle CPHRE.

*Editor’s Note:* On the topic of agricultural health, see the enclosed CCE-produced fact sheet Rural Safety and Health written by Ellen Abend and Eric Hallman.

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