

TEXTILES AND APPAREL NEWSLETTER

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Announcing

Margaret Frey Joins TXA

The Department of Textiles & Apparel proudly introduces Margaret Wilde Frey as the newest faculty member. This is a homecoming for Margaret as she obtained her B.S. in Chemical Engineering (1985) and her M.S. in Textile Science (1989) from Cornell University. She received her Ph.D. in Fiber and Polymer Science (1995) from North Carolina State University in Raleigh, NC.

Dr. Frey brings a combination of corporate and academic experience. She was involved in material development for Champlain Cable Corporation and Johnson Filaments. She was a staff scientist for TRI/Princeton and served as a consultant for Bard Vascular Systems and Helene Curtis Industries. She taught fiber identification laboratories at the College of Textiles, North Carolina State University.

Margaret's research focuses on forming high value fibers from polymers recovered from the waste stream. At every step of product production, materials are discarded or redirected into a product of lower value. Margaret wants to change that. One promising technology is solvent spinning cellulosic fibers from reclaimed cellulose. Waste sources, such as cotton carding, yarn and fabric waste, are treated with solvents to obtain cellulose that is characterized, redissolved and spun into fibers with superior properties. To gear up for these investigations, Margaret is setting up a fiber spinning line, a new technology for TXA. The fiber spinning line is expected to be running in January of 2003.

Margaret is also off to a quick start in the teaching arena. For fall 2002, she is working with approximately 40 students in TXA 237 - Structural Fabric Design. She will also teach TXA 135 - Fibers, Fabrics, and Finishes in the spring semester.

As you can see, Margaret does not have much time for hobbies or sports. Ever inventive, she has found a way to indulge in her favorite activity of mountain biking - she rides her bike to work!

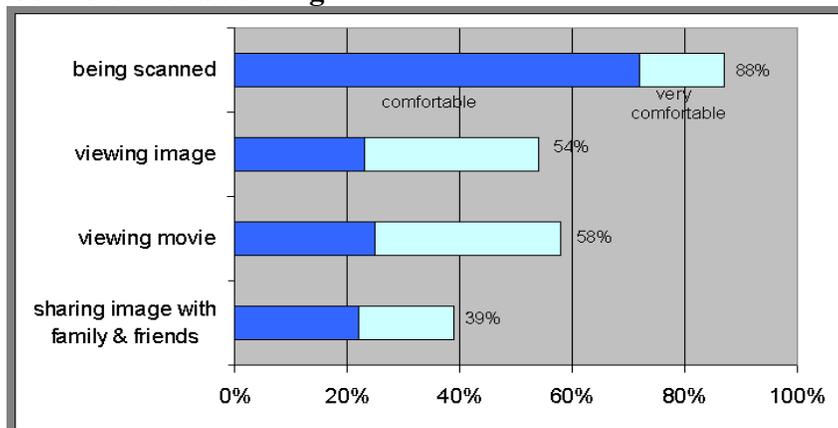
SUPPORTING INDUSTRY

Body Scan Research Results

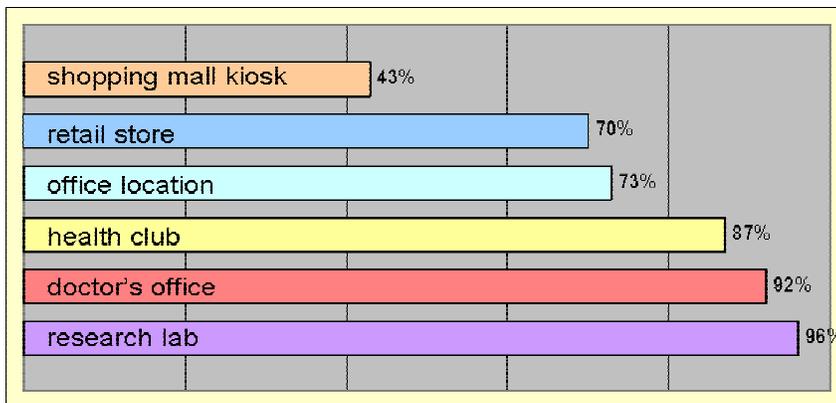
SUZANNE LOKER and FRAN KOZEN

The February 2002 issue of *TXA News* invited you to be scanned using the TXA Department's new 3D body scanner. Professors Suzanne Loker and Susan Ashdown completed body scans of 203 women last spring. In addition to gathering data for sizing research, they asked subjects to react to the scanning experience, predict where they would feel comfortable being scanned, and how much they would be willing to pay to be scanned. The charts below illustrate their findings.

Comfort with Scanning



Locations Preferred for Scanning



When asked if they would be willing to pay more for a garment created using body scanning,

- 91% were willing to pay \$10 or more per scan
- 65% were willing to pay \$25 or more per scan

However, three quarters of the study participants would prefer to pay for a scan separately from the cost of a garment created using scanned measurements.

Participants ranged in age from 35- 54. They were

- 84% Caucasian
- 66% college educated, 40% with graduate degrees
- 82% worked full time
- 56% had household income over \$50,000
- 60% married
- 155 wore misses sizes 4-16, 48 women's sizes 14-24

No significant differences in comfort with body scanning process by age, size range, or education were identified. Single women more comfortable with scan process and results than were married. Women with household income under \$40,000 were more comfortable with the scan process than those with income over \$100,000, although they were equally comfortable viewing scan results.

Get your own custom fit pattern made from scanned measurements

An opportunity to obtain a custom fit sewing pattern made using body scanner technology is being offered by Scan, Sew, Success at a sewing center in Albany, November 6-9.

The cost is \$99 and it includes:

- Custom drafted pattern from core wardrobe collection
- Lifetime Unique Pattern Membership including 1 year newsletter subscription
- Scan Sew Success Seminar with time saving tips
- Accurate body measurements generated by a body scanner
- Password-protected personal web site access to try patterns, colors, and embroideries on your "virtual" image.

To register, contact Altomari Sewing, inside JoAnn Fabrics in the Northway Mall, Albany, telephone (518) 446-0437.

CONCERNING CONSUMERS

Choosing Carpets

NANCY BREEN

Consumers can easily become confused when choosing among the many types and prices of wall-to-wall carpeting. The following discussion is based on the March inservice presentation by Dr. Debra Hild, a visiting professor in TXA and a former Research Specialist at Solutia, a major US carpet fiber manufacturer.

STYLE - Residential carpet comes in several basic styles:

1. **Loop Pile** – The most durable style and the best for crush resistance.

- a. **Level Loop** – Loops are of equal height, best in high traffic areas because most resistant to wear and crushing, but does not give a plush appearance.



- b. **Multi-Level Loop** – Loops are of different heights to create more surface interest, but not as resistant to crushing as level loop.



2. **Cut Pile** – Loops are cut to give richer appearance and feel, but not as resistant to crushing as loop carpet.

- a. **Velvet-cut pile** with little twist in yarns and yarns stand straight up. Gives richest look, but can crush more easily than other styles. The higher the pile, the more luxurious the feel, but the more likely to crush.



- b. **Saxony-cut pile** with twisted yarns and yarns tend to lay down. Gives a luxury look and feel and less likely to crush than velvet.



FIBER - Several fibers are available, so choose carefully.

1. **Nylon** is the strongest, most durable fiber and most resistant to crushing. Best carpet fiber to buy, but is more expensive than others except for wool. There are two types of nylon made into carpet. Nylon 66 is made by the fiber manufacturers, DuPont and Solutia. Nylon 66 is more crush resistant than nylon 6, which is produced by all other manufacturers. However, nylon 66 is more expensive than nylon 6.
2. **Olefin** (polypropylene) is the least expensive fiber. It can be used successfully in level loop carpeting, but not in other styles. A nylon level loop will retain its appearance longer than an olefin level loop, however it will be more expensive.
3. **Polyester** – Feels luxurious, but is not as crush resistant as nylon, although it is cheaper. A good choice for bedrooms or rooms with little traffic.
4. **Acrylic** – Looks and feels most like wool, but not durable or crush resistant. Again, a choice for rooms with little traffic.
5. **Wool** – Durable and looks luxurious. The original carpet fiber that all the other fibers are made to resemble. However, wool is very expensive and needs a moth-proof finish.

FACE WEIGHT - This is a measure of the weight in ounces of the fiber in a square yard of carpet so it tells you how much fiber is actually used in the carpet. Generally a higher face weight gives a more durable carpet, but the tufts of fiber must be the same height. You can only compare face weights of carpets with similar tuft heights. Get the highest face weight that you can afford for the best wear and durability.

STAINS AND SOIL - Some carpet fibers resist stains and soil better than others. There is no perfect stain resistant or soil resistant finish, but any type of finish offers some protection. Carpet cleaning will be discussed in the next TXA news.

Properties of Carpet Fibers.

Fiber Properties	Nylon 66	Nylon 6	Polyester	Olefin
Resiliency or Recovery from Crushing	Excellent	Excellent	Good	Poor to Good
Appearance Retention	Excellent	Good	Good	Poor
Durability of Fiber	Excellent	Excellent	Excellent	Good
Hand or Feel of Fiber	Excellent	Excellent	Good	Poor
Stain Resistance with Finish	Excellent	Good	Excellent	Excellent
Soil Resistance with Finish	Excellent	Good	Good	Good

(Choosing Carpet continues on page 4)

(Choosing Carpet, cont.)

NEW TECHNOLOGY - Manufacturers are always developing new products to improve the product and, of course, to promote sales.

1. Fine denier fibers give a very soft feel or "hand." Brand names are Durasoft by Solutia and Tactisse by DuPont.
2. Impermeable backings prevent spills from soaking into the backing and penetrating into the padding where molds and mildew develop. Brand names are Spill Block by DuPont and LiquaShield .
3. Improved Appearance Retention is provided by improvements in fiber technology. Brand names are ActCrush Resistor by Honeywell and Traffick Control by Solutia.

Web Sites with Additional Information:

- www.carpet-rug.com – the Carpet & Rug Institute, the trade association for the industry
- www.solutia.com/nylon/pages/ – Solutia, a fiber producer
- www.dupont.com – DuPont, a fiber producer
- www.floorfacts.com/carpet.asp – listing and link to many carpet manufacturers by company name and by brand name

Making a good choice in carpeting means matching the carpet's characteristics with a particular use. No single carpet is "best" for all situations. When making a major purchase, visit more than one dealer and compare products, prices and installation services.

Join TXA faculty and staff at the **Association of Cornell Cooperative Extension Educators (ACCEE) Conference: Kaleidoscope of Learning** at Ithaca College, October 16-18.

- * Visit the Entrepreneurship and Family Business Program Work Team display at the Poster Session. Apparel Industry Outreach is one of the participants and will feature video interviews conducted with design entrepreneurs, as well as elements of a new web portal to focus on small business and entrepreneurship resources at Cornell.
- * The exhibit, Pesticide Residues and Other Allergens in Homes, will highlight two studies on indoor pesticide residues and other allergens. Consumer handouts will also be distributed.
- * A third poster, Reducing the Risk of Operator Contamination from Pesticides, discusses the influence of engineering controls on protective clothing choices. Results from a survey of New York growers on their adoption of engineering controls will also be available.
- * Beth Davis will offer a workshop, Fabrications: Textile Structures, aimed at youth development educators.

ENGAGING YOUTH

What a Great Summer!

CHARLOTTE COFFMAN

Hands-on Activities at the 2002 NYS Fair

Fourteen counties engaged fairgoers in experiential activities using The Fabric/Flight Connection, In-Touch Science, and Simple Gifts. In addition, Jan Scholl, Textile Specialist from Penn State, joined me with In-Touch Science at the Science & Technology Program Work Team interactive exhibit.

Free Supplies from In-Touch Science

Supplies were provided to 50 leaders who facilitated In-Touch Science with 1,400 children in summer camps, 4-H clubs, Girls Inc. programs, and science clubs. Participants were from 12 states; New York groups were active in 16 counties.

Youth Activities for Fall 2002

CHARLOTTE COFFMAN

4-H Clothing & Textiles Program

November 1 – Home Sewing Association, White Plains, NY. TXA representatives will attend this Certified Sewing Instructor workshop.

November 9 - Western 4-H Leaders Forum, Medina, NY. Beth Davis and Charlotte Coffman will lead workshops.

In-Touch Science Workshops

October 11 - Northeast 4-H Leaders Forum, Wheeling, WV.

October 26 - 17th Annual Child Caregivers Workshop Day, Canandaigua, NY.

December 7 - Tennessee Appalachian Center for Higher Education, Knoxville, TN.

Warren County Clothing and Textiles Trip

4-H leaders, volunteers, and community members head to Lowell, MA on November 1. The itinerary includes the New England Quilt Museum, the American Textile History Museum, and time for browsing shops and art galleries.

RESULT: Increased awareness of the 4-H program, opportunity to recruit 4-H volunteers, and a lot of fun!

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