Riding the New Wave of Textile Design

Look at the computer screens and then the students seated at the electronic knitting machines. The pictures on the screens—whether hummingbird, fish, or geometric abstract—are en route to becoming design patterns on sweaters. At first glance, it seems to be an odd mix—traditional craft with a technological twist. But it’s exactly what you’d encounter in one of Professor Janet Ambrose’s weaving or knitting classes in the textile studio of the Department of Environmental Arts, Consumer Studies, and Retailing in the College for Human Development. For amid the vibrant sea of threads and yarns, computers are commonplace.

Attribute this setting to Ambrose ‘81, G’90, whose blend of experience encompasses everything from working a spinning wheel in Colonial Williamsburg to doing computer graphics at a high-tech research and development company. She can steer a conversation from talk about the treadles, warp, and weft of weaving to the cables, ports, and downloading of computer land. “If you really want to bridge the gap between creative crafts and the computer world,” she says, “you have to think a little like the other guy, even if you don’t want to.”

Several years ago, Ambrose, a College of Visual and Performing Arts and College for Human Development alumna, teamed with former SU Professor Bill Jones to design software for the weaving industry. They launched Designer Software Inc. and created a program called WeaveMaker—the only software in the world that spontaneously generates woven structures. “The quality a computer has as a design tool is that it can pick from a set of schemes,” she says. “You can let the software make things that are traditional, or let it be wild and crazy.”

For her classes, Ambrose selects software to match the task as she introduces students to computer-aided design and manufacturing. She says the students, many of whom have never knitted or woven before, are amazed by how far they progress and how good their work is when they’re done. “They learn how to design on the computer, how to use computerized machinery, and about the physical skills involved,” she says. “Then they apply all their design skills and use all these tools to create the designs.”

Textile design major Magen Witkowski ’99, admittedly more comfortable with computers than knitting, finds the task intriguing and challenging. “It’s still hard and you never know what might happen—all the knitting can unravel if you’re not careful,” she says. “It’s all new to me and that’s what I like about it.”

Ambrose likens this learning process to surfing. “The way the world is changing now with technology, you have to surf,” she says. “The water is shifting underneath you, but you have to look for the wave, kick like crazy to catch up, and then the wave will lift you up and take you with it. You have to relax and let it carry you.”

—JAY COX