

KANSAS CITY ART INSTITUTE | Growing fiber program is getting a new home

# COMPUTERIZED LOOM EXPANDS OPPORTUNITIES

By MATT CAMPBELL  
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Using a computer to produce art sounds like an oxymoron. Doesn't automation douse the creative spark?

Students at the Kansas City Art Institute are finding just the opposite is true.



Verbeek-Cowart

"It increases possibilities," said Pauline Verbeek-Cowart, professor and chairwoman of the fiber program at the Art Institute. "It is more creative."

The school last fall acquired a fully computerized version of a Jacquard loom, a device that itself is considered the precursor of modern computers. The \$25,000 investment is creating new opportunities for weaving students as well as opening doors to interdisciplinary growth.

"I'm pumped," said Shelby Burchett of Liberty, a junior in the fiber program. She is familiarizing herself with the new loom and will be working with it in class this summer.

"Anything you wanted to do on a regular loom but couldn't, you can do on this," Burchett continued. "If you want to put in a picture of a face, you can turn that into a pattern. You can weave a picture. You can weave text. You can weave pattern combinations that aren't possible on other looms."

A hand loom is a complex machine in which threads are interlaced by way of pedals, harnesses and hooks. Different colored threads can create patterns. The work is repetitive and time-consuming. Mechanical looms that came with the Industrial Revolution led to mass production of textiles with simple patterns.

That was an advance, but the real breakthrough came with the Jacquard loom, named for the man who invented it in the early years of the 19th century. It is often called the first computer because it used punch cards to program the loom to produce textiles with more complex patterns. That was the same principle as the punch cards later used by 20th century computers.

But the Jacquard loom was still limited in that the patterns, once programmed, were always the same.

The new, fully computerized Jacquard loom, however, allows the weaver the



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Shelby Burchett, 20, a junior at the Kansas City Art Institute, made a sample scarf Friday on a Jacquard loom that is controlled with computers. The \$25,000 loom was purchased in October.

luxury of flexibility — and creativity. Each row of thread can be different from the one before it and the one after it.

Erika Hanson, an Art Institute graduate who is now an instructor there, said textile patterns can be entered into a computer with each pixel representing a single thread. The computer then translates the design into instructions for the loom.

Saving time and labor is not necessarily the point, although a pattern that used to take months to create with punch cards can now be done in minutes on the computer. The weaver still sits at his or her post and still has the hands-on experience of creating a physical object. But the possibilities for the result are virtually limitless.

"It doesn't thread by itself and it doesn't work by itself," Verbeek-Cowart said of the computerized Jacquard loom.

"It's exactly the same process. The big difference is you're not limited to small repeats."

The Kansas City Art Institute is among the first, if not the first, to use the new loom in academics. Students in the fiber program who know little about computers can now combine the two fields. Students in other disciplines can gain new artistic perspectives.

"It's fun," said Hanson. "It's new technology that I can be learning, and the students can be learning at the same time."

The computerized loom will be prominent in the Art Institute's new home for its growing fiber program. The school expects to close soon on the purchase of a 10,000-square-foot warehouse at 4218 Walnut St., adjacent to the institute's H&R Block Artspace. The new building will be renovated over the summer.

"Students majoring in fiber have been working in several studios sprinkled throughout the campus, and this will allow the program an opportunity to consolidate under one roof," Art Institute president Jacqueline Chanda said in a statement issued by the school.

The building has been owned by Kansas City Properties Inc. and had been used for storage by American Century.

Verbeek-Cowart emphasized that the computerized Jacquard loom does not relieve students of responsibility for their work.

"You have to still make all the decisions," she said. "The loom doesn't start weaving by itself. And you can make some bad decisions."

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