

REJIGGING THE JACQUARD

Once a tedious process, two sisters founded a company that aggregates the jacquard design process.

Haniya Rae talks to US firm Wovns

‘It seems that Wovns could have a profound effect on the use of fabrics in interior projects’

After working in the textile industry for a number of years, Dena Molnar, a technical developer and manufacturer of textiles, and her twin sister, Chelsea Molnar, working in architecture, saw a gap in the market for smaller runs of custom textiles. Inspired by other successful startups, such as Shapeways, which allows users to submit their designs to be 3D-printed, the sisters wondered why the textile industry was so far behind in terms of technology advancement. It wasn't long before they were able to devise a digital platform that allows users to create their own jacquard prints.

'I became intimately acquainted with jacquard looms and how fabrics were produced,' says Dena. 'I saw how technology could reshape manufacturing processes and how textiles were specified.' The sisters began to look at the parameters of jacquard looms and began to ask themselves if there was a way to expand the jacquard textile offering and produce weaves in much smaller quantities. 'Overhead in jacquard manufacturing is expensive, and to put a warp on a jacquard loom is a huge undertaking,' says Dena. 'It requires hundreds of pounds of yarn to be wound into threads. Because of this, manufacturers don't want to give individuals time to develop their own jacquard patterns because it's not worth it to them.'

Along with David A. Mellis, a founder of the open-source electronic device Arduino that can be programmed to do various tasks, Chelsea and Dena developed a file aggregation system that would allow the sisters to pile different designs together onto one weave. The system gives users a range of colours to choose from. Based on the types of design and the colours they upload, Wovns pairs similar user projects together, have them woven, and then cut them out. In computer terms, it's similar to batch Pattern Classification Programs, or a similar system that aligns like vectors with an algorithm.

After its successful launch this summer, the Wovns team is rolling out two organic fibres, cotton and linen, as well as offering the option to have a pattern turned into a product, such as a pillow or a throw. 'This system can offer scalability at an affordable price point for designers or consumers,' says Chelsea. 'We've gotten a strong response from artists to interior designers to people who have a computational background and want to experiment.'

The Molnars are also hoping that they can service the larger architecture and interior design industry. 'There's a large development arc for people in the architecture and the interior design industry, which poses some challenges. A lot of times, they want something unique for a project, but don't have time to design it, or want to see a fabric on spec but won't get a sample until much later, and aren't even sure if they'll move forward with that option in the end,' says Dena. 'We're looking at ways that we could offer custom patterns for a designer to use in a project and also send them through standard industry testing so that there will be much less time in development.' It seems that Wovns could have a profound effect on the use of fabrics in interior projects.

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Above: Designs and fabrics by Wovns