

There are many questions surrounding denim, from how to engage consumers with exciting retail experiences to how to reduce overproduction waste. These five companies offer up some answers. **by Lauren Parker**



MG2

How can brands engage the senses with immersive experiences?

"Brands and retailers want to create in-store experiences that feel impactful and unique, but too often they create mood boards that are just a canvas of what everyone else is doing," said Melissa Gonzalez, principal at MG2 and founder of The Lionesque Group, an experiential retail consultancy that translates consumer trends, macro trends, cultural trends and insights into store design opportunities. "You need to bring those insights into what you do so you're creating experiences that resonate, but also solve problems. It's about being experiential and immersive, but with purpose."

Lately, her team is creating immersive environments that address wellness and engage the senses, such as Sorel's orangesaturated popup in Williamsburg, Brooklyn. "There's such a desire for well-being, and there are lots of ways to facilitate that in store environments because it

is all sensorial — namely sight and sound and smell," she said. At Sorel, augmented reality heightened the experience as consumers got a snow or rain effect over their full-body mirror as they moved.

Data is key to capturing the many nuances that even samestore consumers take on their paths to discovery. "You can't make every single element personalized, although maybe one day through technology and AI! So, how do insights facilitate how you can make those experiences feel as rich as possible?" said Gonzalez, who is currently working with a "fast-growing denim brand" to address pain points of fit and inclusivity. "How do you create an environment that truly is inclusive, from size zero to size 20?

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CLEANKORE

Can PP-free dyeing be done without extra cost to the denim brand?

Potassium permanganate (PP) spray to create denim effects has become a pariah for brands MG2 creates experiential retail concepts.

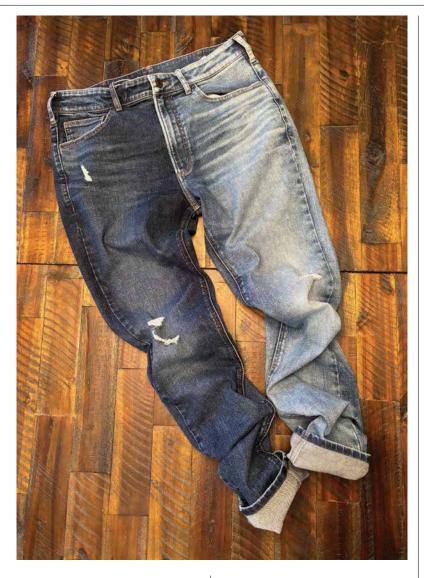
Tex2Tex recently expanded to denim mills. seeking clean denim solutions, as the highly polluting, oxidization chemical is banned in the EU and faces strict U.S. standards. Retailers and brands, however, don't want an upcharge for sustainability, and today's inflationary environment has made it difficult for factories and mills to invest in new technology and equipment.

Enter CleanKore, which has eliminated PP in its dyeing process without incurring a premium. The U.S. company utilizes a partner mill's existing denim dye range to create "a perfect ring dye effect" from pure indigo, sulphur bottom/ top and sulphur black on open end and ring spun yarns. This is done sustainably, without the need to purchase any additional equipment or chemicals.

"The CleanKore team will follow the fabric from the mill to the garment manufacturer to convert traditional recipes to lean recipes, resulting in the elimination of potassium permanganate (PP) spray and reduction in water, chemicals, energy, time and carbon footprint," said Julie Colantuono, director of product development and design, CleanKore. "Software, such as EIM scores, always remain in the green zone as a result of the lean wash recipes."

Launched in 2018, CleanKore,





from nearshoring locations to

sourcing and supply chain

issues for American brands,"

said Dixie Carter, president of

the momentum to source from

locations nearer home, leverage

Hemp, a sustainable, resilient

commodity, blends with cotton,

viscose, lyocell and other man-

The company is working with

spinning and denim mills in the

made cellulosic fibers, and Panda

hemp offers traceability by Oritain.

U.S. as well as Mexico, Bangladesh,

the underutilized capacity for

woven and knit products in

Mexico, CAFTA and Brazil."

Panda Biotech. "This will increase

circumvent the current logistics,

has six patents and 16 patent applications throughout the world, and has conducted more than 400 successful mill trials and the tech is implemented in millions of garments in the retail market. Its largest partnership is Epic Group for Walmart production.

"CleanKore eliminates the need to develop multiple dip version of a fabric since it can produce a wide range of shades for garment manufacturers. This improves inventory management, quicker delivery and allows the customer to change assortment due to one fabric," said Colantuono, noting that CleanKore also captures authentic worn washes by allowing fabric to be laser friendly and creating sustainable high/lows.



PANDA BIOTECH

Can domestic hemp be a catalyst for change?

As more U.S. brands commit to source fibers closer to home and incorporate hemp into their collections, Panda Biotech's hemp processing capacity could be part of the solution. Based in Wichita Falls, Tex., the facility will have the ability to deliver more than 35 million pounds of textile-grade hemp fiber when phase one is fully operational.

"The availability of U.S. hemp will open the door for product development, design, execution and rapid delivery Pakistan, Vietnam, India, Turkey and more.

"The ability to process 10 tons of straw per hour into clean, quality, textile-grade fiber makes us the largest facility in the Western Hemisphere and one of the largest in the world," said Carter, adding the facility is 375 miles from one of the largest ports in the U.S. and is near spinning mills in both the U.S. and Mexico.

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DXM

Can on-demand manufacturing solve fashion's overproduction problem?

There are 3.1 billion denim jeans produced globally a year, utilizing 1,800 gallons of water to produce each pair, and approximately 25 percent of all apparel produced goes to landfill. DXM Inc. wants to help brands reduce those numbers with a technology platform that connects the consumer directly to made-to-order commerce with advanced turnkey manufacturing for apparel and footwear.

Carhartt, for example, added ondemand manufacturing powered by DSM, and consumers can "build and customize" tees, pants and jeans. On a denim sku level, there are 21 million options once you factor in cuts, materials, washes, pockets, trims and details like an invisible side pocket for a phone.

"Interestingly, we found that most people were just ordering straight-up styles in those inbetween sizes that the brand didn't carry," said Matthew Wallace, CEO of DXM. "It's a great inclusivity tool."

DXM produces on-demand products for Carhartt in India,



THE AVAILABILITY OF U.S. HEMP WILL OPEN THE DOOR FOR PRODUCT DEVELOPMENT, DESIGN, EXECUTION AND RAPID DELIVERY FROM NEARSHORING LOCATIONS..."

-**Dixie Carter**. Panda Biotech

Guatemala and the U.S. with an average lead time of six-nine days from order to delivery. "We made 245 units last month and have plans to more than double that in the coming few months and scale further toward the holiday season," said Wallace, adding that about 60 units are made in the U.S. per month. With close to zero return rate and a higher AUR, made-to-order "is a different way of doing business."



TEX2TEX

Can recycled poly go 'beyond the bottle?'

While polyester is a prevalent material in textiles, only about 14 percent of it is recycled. Additionally, more than 90 percent of the recycled plastic RPET market is "downcycled" from bottles. Textile-to-textile recycled polyester company Tex2Tex aim is for industries to "go beyond the bottle" in favor of recycled poly materials.

"Our philosophy is that each industry should recycle its respective waste and discontinue bottle-to-fiber recycling," said Samuel Goldstein, CEO of Earth Protex Corp, the parent company of Tex2Tex synthetic recycling solutions.

The "cost competitive" Tex2Tex utilizes a Thermo-Mechanical Reactor (TMR), which offers output, cost and impact advantages over traditional chemical recycling. The high-quality recycled fibers also allow for apparel to complete a "cascading recycling strategy" of five fashion iterations during a life cycle, before the polymer requires being chemically recycled back to its original form.

Tex2Tex has fiber production capacity of 50,000 tons per year. The company's recent expansion to denim mills, many vertically integrated, to supply the Intertekcertified GRS materials is needed to make this push a reality. Tex2Tex has denim weft applications including recycled cotton carrier fiber.

Impact reduction is significant. Per 1kg of Tex2Tex fiber, CO2 emissions are 3.4-times lower than bottle RPET and 6.4-times lower than virgin PET. Water savings are 23-times less and 347-times less than bottle RPET and virgin, respectively. ■



Panda Biotech is pioneering U.S. textilegrade hemp.

