

# A New Dress Code

Innovating Layers of Performance Refinement & Eco Responsibility.

By Emily Walzer | Jan / Feb 2022 Issue

It used to be that all it took to stay warm during the cold days of winter was a next-to-skin layer of clothing for wicking, a midlayer for warmth, outerwear for weather protection and you were good to go. It was a simple, straightforward system for snow days. Now layers of innovation are more advanced with specialized performance features and collections curated to appeal to an increasingly diverse community of active outdoorists.

Market drivers for the season ahead come with a variety pack of performance features that includes thermo-regulation, comfort with function, protection from the sun as well as stains, and anti-microbial protection from germs and viruses. This new phase of functionality brings sophistication and adaptivity.

Layers of innovation are also piling up developed to enhance environmentally-friendly fabrications. Trending now is a whole category of biodegradable, carbon-sequestering fibers, mono-materials for recyclability and circular textiles for closing the loop that together give shape to a new spectrum of sustainability.

This contemporary eco approach by consumers and companies alike is outlined in a recent RANGE Horizon report that offers statistics and strategies defining what's next in sustainability. For example, Range reports:

“Americans, on average, buy more than one item of clothing each week. Coming off a holiday season fraught with supply chain issues, many are asking themselves why they need so much stuff. True sustainability requires reducing our consumption, not just buying ‘green’ products or offsetting the carbon footprint of our purchases.”

Corporate degrowth strategies and putting responsibility first are cited as two areas to watch going forward, according to the Issue 71 of the Range report, titled Positive Outlook. The issue gives this statistic: 81 percent of CMOs agree their business will undergo a fundamental pivot in response to climate change, while shifting from a consumption-based economy to a circular economy.

In fact circularity has leap-frogged sustainability as the hot topic in textiles for 2022, with ingredient brands, fabric suppliers and product developers more concerned than ever with designing for circularity.

These factors, both performance-wise and climate-conscious, should bode well for the future of the outdoor industry. Chris Parkes, president of Concept III explains, “The outdoor industry’s responsibility is to get people outdoors, and not be a fashion club for everyone, which just creates waste. What if outdoor companies designed garments for circularity? That might bring the industry back to what it does best: Responsible, thoughtful, functional product for the outdoors.”

Artilect and Houdini are two outdoor brands that are already on this new path influencing how we will dress in the years ahead.

Artilect makes apparel built to last “because making fewer things that last longer is the ultimate sustainability platform,” according to the Boulder, CO-based firm, launched in 2020. Its driving purpose is to “deliver an unmatched performance experience as well as create the least amount of impact on the world we love to play in.”

Houdini’s Fall 2022 line showcases an essential approach for purchasing outdoor apparel, urging consumers not to embrace fast fashion. One hundred percent of Houdini’s Fall 2022 fabrics are recycled, renewable, biodegradable and bluesign certified.

Niclas Bornling, Houdini's head of brand and D2C describes the new Essentials line as a durable, timeless style, from everyday use to adventures in the outdoor elements. It's a minimalist approach to products that have longevity both in quality and fashion. "By creating garments meant to last, consumers lower the emissions and waste byproducts of their clothing while using premier items," commented Bornling.

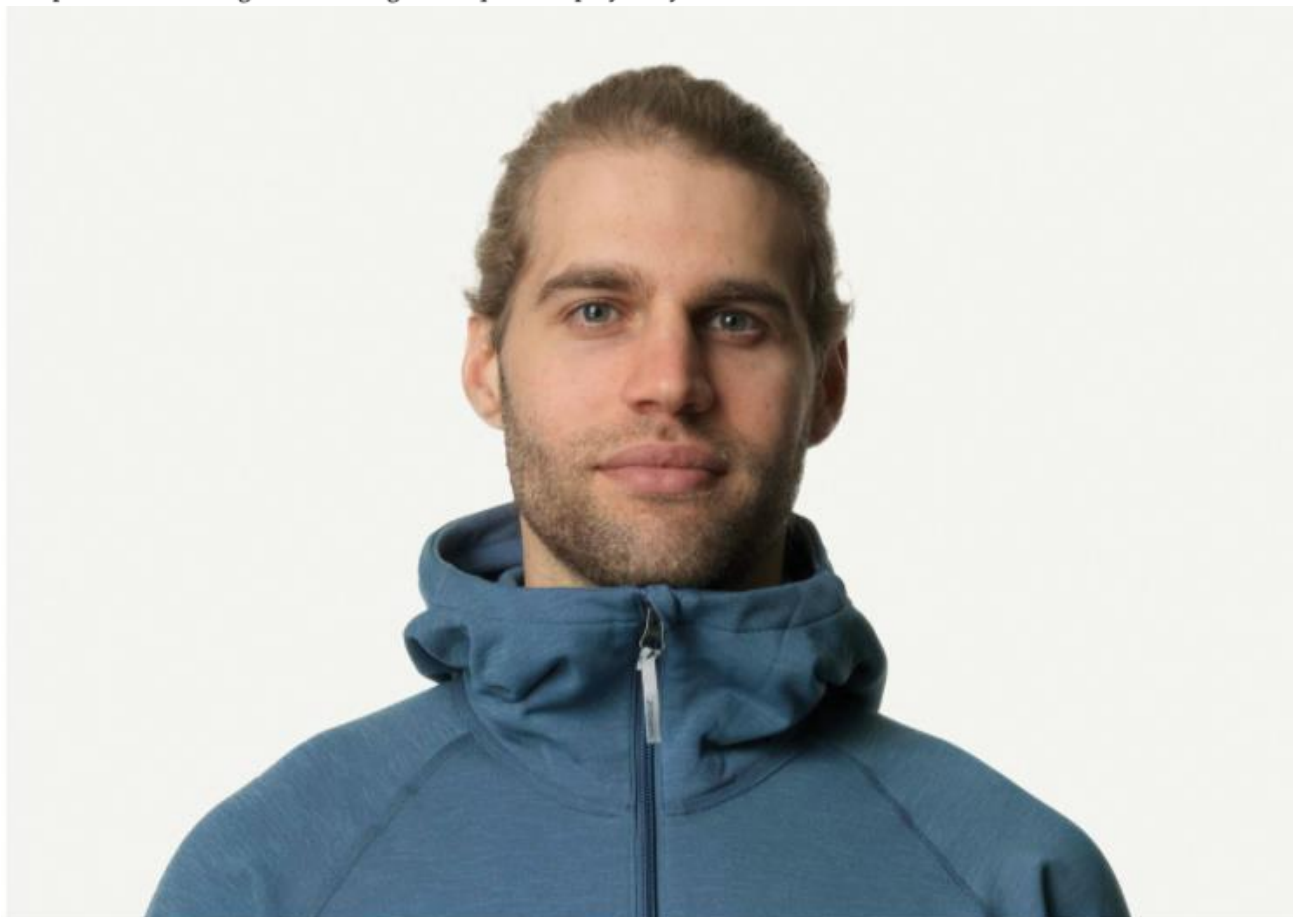
## A Functional Future

This is how form and function come together in layers of comfort and protection for the season ahead: Baselayers are loaded with performance based on the latest ingredient technology with natural fibers as well synthetics playing a role for moisture management; Midlayers introduce advanced knitting constructions for lightweight warmth with minimal shedding; Loft is a key feature; Outer layers highlight sherpa looks with added performance features such as water-repellency, while 2-layer outerwear makes gains with functional, recycled, biodegradable materials.

A big takeaway is that functionality these days is not one dimensional. Fabrics are soft, durable and made to move. Thermoregulation is moving up the performance ranks as today's consumers increasingly desire clothing to be "adaptive," "trans-seasonal" and "versatile."

Artilect relies on NuYarn for thermoregulation across its apparel collection and the material is front and center in the brand's presentation. NuYarn is an engineered merino that excels in dry time and durability and is breathable with more stretch with less elastane. On the eco side, NuYarn uses 30 percent less raw materials with less energy consumed in spinning. Consumers can tap their mobile over a "TAP" sticker on a hangtag to find more information.

Hyosung also calls out thermoregulation in its new Autumn/Winter '22/'23 textile trends. The company's Fashion Design Center (FDC) identifies "Maximal Techniques" as a mega-trend for the season ahead explaining, "With high functional fabric developments and need of basic better items fast tracked due to the global pandemic, demand for high-performing essentials is growing." The forecasting team adds that thermoregulation plays a key role. "As activities shift between different environments and needs, consumers seek core items that adapt to changing temperatures. Cooling and warming techniques will play a key role."



Houdini Men's Outright Houdi.

Ingredient suppliers brrr, 37.5 and NexTex TurboDry continue to advance new and different ways to achieve thermoregulation. For example, brrr's latest innovation is brrr Pro that uses micro mineral technology to enhance each individual fiber to intensify the "Triple Chill Effect" of natural cooling materials, active wicking and rapid drying. Turbo-Dry relies on physics, based on biomimicry, rather than chemistry to move moisture away from the skin and improve comfort. 37.5 is based on active participle technologies designed to help users manage and maintain optimal core temperature and relative humidity levels.

## A Sustainable Future

The textile industry is laser focused on environmental responsibility. This has ushered in a myriad of product developments and technology breakthroughs in recent years upgrading the functional fabrics landscape to a much deeper shade of green. This time of change, driven by climate concerns and the ability to achieve lofty eco goals for businesses, continues in 2022, with sustainability shifting to circularity and a textile community keen to create a modern closed loop system that not only encourages consumer participation but requires individual action as part of the next-generation supply chain.

"This is not only a technical problem, it's behavioral economics," says Thekla Wilkening, business consultant, Cool Circles UG, Rostock, Germany, who explains that established modes of decision-making need to be addressed in order to move circularity forward. "We suffer from three biases: Status Quo, that everything is fine the way it is; Self Control, that I want it now, and fast is better than slow; and Confirmation, that staying with this bias is right. We need to break these mindsets and create new habits, among consumers, users, and suppliers."

Wilkening points out that today's younger generation is less concerned with owning and more open to sharing. "This is a good sign," comments Wilkening who believes that the growing trend of renting apparel and upcycling and recycling clothing will help promote circularity.

Re-learning consumption habits goes hand in hand with industry re-thinking design habits. "It all starts with the design process, that's where 80 percent of the product impact is manifested," says Wilkening.



Artilect Women's baselayer.

“Circularity should be at the forefront of any design action brands are taking,” states HeiQ CEO Carlo Centonze. “This way consumers will get the message to bring goods back to recycle. You need to bring consumers into the loop for circularity to be possible.” He adds to this message, saying, “Brands stand in the leadership to design for recycling and we in industry stand in leadership to provide the brands with the materials and knowledge and the technology to make this possible.”

Accelerating circularity as a design principle is key to changing the course of textile production in a more planet-positive direction, especially considering the mountain of textiles currently produced annually; it’s estimated that every person goes through 14 kilograms of textiles every year, and the global population is expected to be 8 billion by 2034. Approximately just one percent of textiles are recycled worldwide.

The majority of textiles produced for active/outdoor end use are synthetics, dominated by polyester. Most fabrications are blends, making recycling even more difficult, and until recently, biodegradability for synthetics was not on the table for discussion. According to a recent report from Statista, synthetic filament yarns constitute over 60 percent of global annual textile output of 108 million metric tons.

Centonze believes his firm’s recent innovation offers a high-performing eco solution. HeiQ AeoniQ is a cellulose yarn based on a new fiber derived from carbon negative materials. Specifically, cellulosic biopolymers that during growth bind carbon from the atmosphere while generating oxygen. In terms of functionality HeiQ AeoniQ is designed to offer comparable performance properties to polyester, nylon and conventional regenerated cellulose yarns.

HeiQ AeoniQ yarns do not draw on arable land, pesticides or fertilizer in their production and according to the Zurich-based company, can be recycled repeatedly while maintaining consistent fiber quality. Initial delivery of the first HeiQ AeoniQ yarns from the pilot production plant is slated for spring of 2022.

The LYCRA Company is the first to join HeiQ as a development partner. According to LYCRA Company CEO Julien Born, new types of LYCRA fiber have the potential to be combined with HeiQ AeoniQ yarn to create unique decarbonizing and degradable elastic fabrics.

This “co-creation” concept also signals positive change within the textile industry as firms form deeper relationships with brand partners.

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## The Big Picture



Dr. Pamela Ravasio.

Dr. Pamela Ravasio, founder and managing director of Shirahime Advisory, specializes in corporate governance and responsibility, with a strong link to innovation processes and digitalization. She has held corporate roles as a global stakeholder manager and as head of CSR & sustainability, and under her leadership, the European Outdoor Group developed into a global industry force. Ravasio is known as a champion of transparency and advocates for an inclusive approach to all partners along the textile supply chain. Her long-held goal remains to enable companies to change towards “being good.”

This is an edited version of Ravasio’s Fireside Talk in conversation with Charles Ross during the Performance Days fair held virtually in December.

### **Ross: Is the industry moving fast enough toward sustainable goals?**

Ravasio: I believe that each of us can, and should be, doing a contribution to make everyone’s life better, to live within the means this planet is giving us, to have a good life. We should try to reduce the negative effects of what we do. Rather than making life less bad, you want to make life good for other people.

### **Can we have a truly sustainable brand in the current system? Do we need to decouple profit and growth to achieve true sustainability?**

The clear cut answer is NO. There is no way any company across industry is genuinely sustainable living within the boundaries we have — and genuinely contributing to having a better life for all. It’s ‘donut economics,’ no companies move in the little donut piece.

The economic model that we have does not serve what it should. It was functional in days where there were few people and loads of natural resources. In my lifetime, population growth has gone from 6 billion to almost 8 billion with current projections targeting 10 billion by the end of the century. That kind of pressure on the system reduces its ability to regenerate itself. The scale we have achieved doesn't work with the resources we have. We need to find how else to work.

**Has the planet demonstrated that it's going to survive?**

It isn't about survival of the planet, the planet will be just fine. It's about survival of species. If you have children you might see your grandchildren, possibly your great grandchildren. But fundamentally if we are talking economics, or an economic system, and the success of business, unless your great great grandkids are a fit for your business, you haven't got a case. How much longer will homo sapiens survive is the question.

**What is the first step companies should do if they want to have better practice?**

My view is quite simple: What you can't measure you can't manage. So you need to know where you are now and how you measure that. Those ducks have to be in a row to go forward.

**Can we be a sustainable brand if our model for selling stuff is how we make profit?**

The fundamental question behind that question is: how do you define success? Both as an economy globally or company specifically, is success measured by your P&L? By single or double digit growth? Growth in jobs created? Or growth in the number of offices opened? If you look around, there are companies that are challenging the concept of success. For example, a brand of tea that supports the livelihood of tea growers in underprivileged areas.

**Is sustainability the wrong word for what we are doing?**

It used to mean a lot, and in turn has undergone significant transformation over the decades. For some time sustainability meant the financial survival of the company. It went into meaning sustainable development with the famous report put out by the United Nations (UN), and every few years sustainability gets a slightly different nuance, a slightly different feel to it. Maybe a more intuitive way to think about it is, if you're gone will your offspring still be there, and will they have a good life within the current context at that time.

**What have you heard recently that has piqued your interest?**

Tech that takes out carbon from the atmosphere. "Carbon Capture" is the buzzword. Big investors are rolling out big facilities in Iceland, and elsewhere with this in mind. It's not clear if this will pan out. For example, can they scale quickly enough? What are the tradeoffs and are there side consequences? I'm still at the point of trying to understand if these technologies make sense. I've also heard about yarns made from solidified carbon. (Carbon nanotube wools made directly from CO2 by molten electrolysis are being talked about as a way to mitigate carbon dioxide greenhouse gas emissions.) As for offsetting, why do we need to offset, when we actually need to reduce what we create in the first place. Perhaps it should be "insetting" vs "offsetting." There's no silver bullet, there will never be, there has never been. It's always a trade off. And the science is only as good as it is today, and tomorrow it will be something else better than today, etc... We need to keep learning, and tomorrow we may learn that we might be wrong."