

The Crossroads

Where Green Science and Fashion Intersect

Today, outdoor apparel brands are at a considerable stop on the road of sustainability: the intersection where science and fashion meet. Whether through research, environmental science knowledge, inventions in fabric developments or careful consideration of resources' effects on natural surroundings, outdoor apparel companies are coming to eye-opening possibilities as a result of utilizing science and fashion together. Shoes, for example, can be given great-looking laces made by melting plastic bottles, whose substance can then be extruded into thread-like fibers. For some brands, the simple understanding of the science behind materials has led to environmentally friendly

changes that don't affect the appearance of the apparel—such as making the switch from synthetic to water-based dyes or from non-organic to certified-organic cotton.

As a result of the creativity and cohesion that stem from the intersection of science and fashion, many outdoor apparel brands are discreetly deciding that although they may soon come to a new, equally vital crossroads, this one is too useful, its viewpoint too significant to soon forget. With that in mind, check out the products below, and what the intersection of fashion and science has allowed their manufacturers to create in terms of revolutionary eco-apparel.

Simple Shoes | Carport elastic shoe With a master's degree in environmental science and management, and an interest in fashion, Abigail Afman, Simple Shoes' associate product line manager, says, "The field of fashion and science are very interrelated." She elaborates on her position at Simple: "I get to use some of my science background, looking at materials and evaluating how the shoes are made, and to use some of my fashion interest as well." She's referring to evaluating developments such as the extrusion of PET plastic into threads of fabric, in addition to the placement of an additive in the rubber of the Bio-D collection that enables the natural and recycled outsoles to degrade in a landfill or compost heap. Simple's Carport elastic also exemplifies how Simple intertwines science and fashion in order to develop great-looking shoes with minimal environmental impact. The men's Carport elastic is made of recycled wool, organic cotton, recycled PET, eco-certified suede and ... car tires. "The sole is an actual car tire that's been cut down," Afman says. Next spring, science will prevail over the simple cutting up of tires—Simple will begin blending tires and natural rubber to enable easier testing for chemicals in the tire rubber to ensure that all present chemicals are safe for consumers. "To look at the science behind materials ... my science-nerd side thinks, *Oh, that's awesome*," Afman says.



Kigo Footwear | Curv shoe "First and foremost, we determined that we would not make just another pair of shoes. If we were going to do this, we were going to do it right, and that meant using eco-friendly, nontoxic, post-consumer and sustainable materials," says Rachelle Kuramoto, founding partner of Kigo Footwear. "It took months to research and nail down all of these materials," Kuramoto says, adding that it also took the enlisting of a design engineer to create "stylish, durable, versatile" Kigo shoes. With innovation in research and design, Kigos, weighing just 4 ounces per shoe and boasting extreme flexibility, were born in August 2009. The Kigo Curv, introduced this year, is the second generation of the company's line of lightweight, durable, nonslip shoes that were created to perform in any environment, including snow and ice. "The composition is the same eco-friendly materials, and the weight hasn't changed. We have added more room in the toe box and top of the shoes, as well as more stretch throughout to provide a better, more athlete-friendly fit," Kuramoto explains. "It's always so exciting to see where Kigo has gone in the world—and in a short year, it's been everywhere," she says.



prAna | Rochelle top Nicole Bassett, prAna's director of sustainability, maintains that "nature has guided prAna since the very start." In keeping with its roots, she also says, "we're always looking for new ways to fold the intention of sustainability into our materials and practices." The prAna Rochelle top is made of 100 percent organic cotton, which means the cotton itself was grown from non-genetically-modified seeds without the use of pesticides or herbicides. But when it comes to the science behind the scenes, prAna has determined that its use of recycled polyester has shown the most interesting returns. According to Bassett, the recycled polyester used in much of prAna's clothing has come directly from plastic bottles. These bottles, recycled from Japan and Taiwan, were originally en route to a landfill before they were transformed into fiber and woven into prAna clothing. By utilizing science to "refurbish" plastic bottles and create soft, wearable, brand-new fabrics, prAna has directly diverted plastic bottles from landfills.

Gramicci | Moonraker shirt Marty Weening, president of Gramicci, cares about the environment "because it is both right and righteous." So he ensures that Gramicci ties science and what he calls "soul" together in order to develop beautiful, eco-conscious clothing. "The science started here 28 years ago with its worn and weathered appearance," Weening says. He explains, "The soul is the brand's heritage for never looking the norm and for always inventing new naturally technical product for doing stuff outdoors. Now the soul is also doing as little harm to the environment as possible ... so we use only low-impact dyes, which use less water and energy, and our products are made in certified and inspected Fair Labor facilities." In addition, Gramicci's apparel is composed of 65 percent organic cotton, or blends of organic cotton and recycled materials or hemp. The Moonraker shirt is just one emblem of Gramicci's "science and soul" mantra; the brand's scientific considerations have been woven into its signature seasoned look, which, as Weening puts it, has been "worn with pride by legendary dirt-baggers yesterday and today."

