

INNOVATION REFINED



THE CRAFTSMEN AT GIRO THRIVE IN THE BALANCE BETWEEN ART AND TECHNOLOGY

The state of the art technologies and modern aesthetics of their product line today make evident the fact that Giro continues to enrich the industry standards for function and design as they have done for almost thirty years. Its grass roots run deep in Giro's hometown of Santa Cruz, California where founder, Jim Gentes first began operations in the mid 1980's. Easton Bell Sports, now Giro's parent company, maintains a comprehensive facility five miles up the road in Scotts Valley where all brands now operate. High ceilings, modern interior design and smiling faces welcome you in the lobby before a quick right turn to face the trenches—the ground floor for some of the most innovative design in sport safety and equipment we have ever seen, beyond thick glass doors.

The stereotypical office environment is one structured by cubicles—a word that rattles the bones of athletes, outdoor enthusiasts and creative people everywhere. While the work environment at Giro may qualify structurally as stereotypical, the atmosphere is quite contrary. The open air seems to foster connectivity between employees and create a common energy palpable to the outsider. Desks and tables are laden with artifacts from the company's history, a colorful graveyard of past projects and ideas that form the foundation for what Giro has become today. Though the museum that is Giro headquarters is home to one of the most advanced design and testing facilities in the industry, the people at Giro remain artisans committed to the fine art beyond functionality. Meeting and exceeding safety standards is a prerequisite to developing something beautiful, practical and desirable for cyclists.

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Senior industrial designer, Greg Marting placed three chunks of material on the long wooden table of the conference room. Two of the objects looked like they were carved out of obsidian, projecting an aggressive, gothic demeanor in high contrast with the soft grain of the pine beneath them. The third resembled a sea sponge. Marting ran his hands over the largest with familiarity. “I'm more old school,” he said looking down at his work, “I carve these by hand.” Marting often pulls inspiration from the automotive and aeronautical industries. He'll see a shape or a curve that sticks in his mind and later work it into one of his sculptures. His creativity was recognized by the Museum of Modern Art, which added the Atmos helmet to its permanent collection. He uses hand tools to shape the blocks of foam into the first version of every Giro helmet, making each product truly a work of art from the beginning. The model is 3D scanned and printed in a black polymer at 1:1 scale for analysis. This is merely the beginning of a long process to fine tune a helmet for production, yet in these first steps the marriage between

art and science is harmoniously evident. Creative director, Eli Atkins maintains a similar practice in graphics.

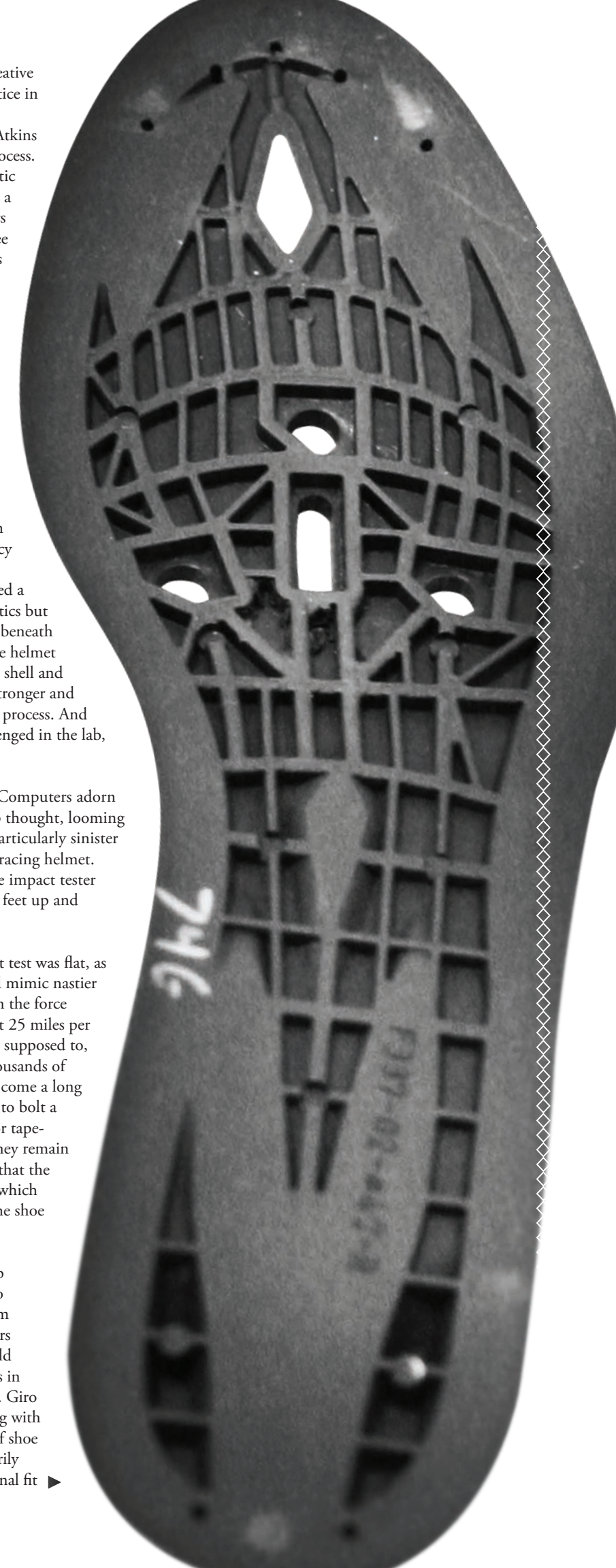
As an avid surfer and punk rock musician, Atkins brings many unique flavors to the design process. Each member of his team has a unique artistic style and personality, a vital characteristic in a creative department. “It's not a day job,” says Atkins, “I'll be on a ride with my son and see some peach color or some object that speaks to me, and I'll be thinking about how I can work it into my next design.”

For each model, Atkins and his team are presented with five separate panels to work with. These are rigid plastic sheets that are heated and formed into each surface of the helmet. Atkins will hand paint his ideas onto these surfaces, sometimes using tape and razor blades to mask out certain shapes. The artwork is then transferred to a digital process for fine-tuning and eventually screen printed to each helmet. This allows for maximum consistency between units on an extremely intricate and three-dimensional surface. This surface, called a polycarbonate shell, is not merely for aesthetics but is also structural. It serves as an exoskeleton beneath which the EPS foam is injected, bonding the helmet together in a process called in-molding. The shell and foam are fused together, creating a lighter, stronger and more ventilated helmet than with any other process. And the integrity of each prototype is then challenged in the lab, adjacent to the design department.

It looks like a space-aged torture chamber. Computers adorn custom machinery with technicians in deep thought, looming over them, tinkering and scribbling. One particularly sinister looking apparatus held a newer model of a racing helmet. Brand manager, Eric Richter introduced the impact tester with a smile as the victim was raised fifteen feet up and locked into place.

The chosen surface for this particular impact test was flat, as opposed to concave or beveled which would mimic nastier crash scenarios. The helmet came down with the force equal to that of a rider hitting a brick wall at 25 miles per hour. It broke, absorbing the impact like it's supposed to, and Richter reiterated, “We've destroyed thousands of helmets in here.” The testing processes have come a long way from those of their founder, (who used to bolt a manikin in a helmet to the roof of his car for tape-and-ribbon aerodynamics testing) and yet they remain almost entirely in-house. This is something that the company truly values and is committed to, which made their recent decision to expand into the shoe market that much more bold.

Jeff Gentes started Giro intending to develop a wide range of products. Helmets seemed to be the hole in the market with the most room for improvement. The goal was to make riders safer by producing something that they would actually wear and still protect them. Helmets in the 80's were heavy, uncomfortable and ugly. Giro changed that, developing a habit of 'tinkering with the status quo'. Upon entry into the world of shoe design, the designers had many goals, primarily to achieve the most comfortable and functional fit ▶





possible. They handled this from the inside out, utilizing the insoles as their main component for customization. Three different widths of arch support spacers are offered that adhere to the bottom of the insoles with very low-profile Velcro. One would think that the additional material might add too much bulk for those with high arches, but Giro's shoe crew focused on using quality materials and smarter engineering to produce a remarkably thin sole without sacrificing strength. In fact, several users including a few pros had to drop their saddles a bit to make up for the new decrease in the stack height beneath their feet.

At ROAD, we were fortunate enough to try the Factor, Giro's competition level road shoe. They are surprisingly light (especially considering I ride in a 47) and have a sleek,

fluid look to them. The ratcheting buckle is low profile but accessible even through gloves. The Teijin Microfiber used to form the upper is some of the best in the world, with very little stretch and optimum breathability. One of the details we found most original was the transitional zone where the upper meets the sole. The upper curves around the side of the foot, then back inward, connecting to the sole underneath the edge of where your foot is supported. Seemingly insignificant and hardly noticeable, this detail is responsible for a new level of comfort for all foot widths. It cradles your foot in microfiber, as opposed to smashing into the edge of a rigid carbon sole. Your foot almost spills over, providing seamless comfort supported by the static fabric mounted to the rigid carbon beneath. A well-sculpted heel cup and a more open toe area feel like a tailored fit with ample support that won't hinder

blood flow. The Factor is a great purchase for a cyclist who's serious about racing or just wants something comfortable that will last. And, like everything in Giro's product line, they look great in action.

Mindful of their humble beginnings, a company that pioneered modern helmet design looks into the future with an open mind. Their product line continues to expand and "enhance the ride experience." Branching out of the cycling industry here and there, Giro is constantly feeling for room to grow while dominating the 'top' of the peloton with trendsetting style and technology. The performance their product brings to the table is matched by the soul in every design, and it's a refreshing and inspiring dose of craftsmanship in today's modern cycling world. **1**

