

# S P O K E S

THE PASSIONATE GEARHEADS  
OF MERLIN METALWORKS  
CUSTOM-BUILD TITANIUM  
BICYCLES THAT FUSE SPACE-AGE  
TECHNOLOGY WITH  
OLD-FASHIONED ARTISTRY.

BY PETER HYMAN  
PHOTOGRAPHY BY CHRIS M. ROGERS



Between the lines of the  
Merlin Camena. Opposite:  
Merlin artisans stand behind  
the quality of the 2004 Agilis.

# P E O P L E





Company visionary Tom Kellogg helped create Merlin's blueprint for success. Opposite, counter-clockwise from top: the Merlin logo, which appears on each frame; shop welder Eddie Jinnette adding his final touches; the Merlin Cielo's chain and crankset.

THE END OF THE COLD WAR MAY HAVE led to the collapse of communism and the emergence of a global economy, but it had a residual effect that even the most ardent Kremlinologist couldn't have foreseen: the declassification of titanium alloy as a recreational building material. But you needn't be a member of the Department of Defense to enjoy this multipurpose metal; you can glide along any back road on a titanium-alloy bicycle hand-built by the talented craftsmen of Merlin Metalworks. A well-constructed road bike is a complex study in design purity, and to ride one is to experience the fusion of space-age technology, old-fashioned artistry, and two-wheeled freedom.

Merlin was launched in Somerville, Massachusetts, in the mid-1980s, when frame guru Tom Kellogg and a ragtag band of fellow gearheads developed the first roadworthy titanium bike frames after years of frustrating failures. Since its inception, Merlin has stood for passion and craftsmanship, twin virtues best embodied by Kellogg himself, a bike maven and a Geppetto of sorts in the cycling industry. Kellogg developed the initial geometry and ride characteristics of the Merlin frames, and today he serves as the brand's spiritual leader.

"Tom certainly is the beacon that keeps us aware of the passion with which this all was started," says Mark Lynskey, president and CEO of American Bicycle Group (ABG),

which bought Merlin in mid-2000 and moved the company to Chattanooga, Tenn.

Even at 52, Kellogg has the trim stature of a competitive road biker (he still races seriously), though time hasn't been quite so kind to his hairline. Easygoing and spry, he speaks in a gravelly voice, the result of a near-death motorcycle-racing accident in 1982 that left a vocal cord paralyzed. Kellogg has the strong, calloused hands of a bike builder, an undertaking he began in 1976 when, upon graduating from college, he signed on as an apprentice to a master bicycle builder in New Jersey. But the arrangement was short-lived—Kellogg was fired because the master felt he had no business building bike frames.

"I don't blame him," says Kellogg. "In fact, it was the best thing that could have happened." He struck out on his own after that, and has been honing his craft ever since. He began experimenting with titanium in the mid-1980s simply because he feared the industry might go high-tech without him. As with much of his life, the titanium "accident" had a positive outcome.

Why titanium? Unlike steel, which was the industry standard for nearly a century, titanium doesn't corrode. (Your old steel Schwinn Varsity probably suffered a rustier fate.) Titanium also has a higher strength-to-weight ratio than steel or aluminum (its superiority to carbon fiber is a subject of intense bicycle-industry debate), yielding a final product that

can be noticeably lighter without giving up any of the rigidity, an important consideration in a sport where a few grams can be the difference between victory and defeat.

But titanium's magical ride quality comes from its resiliency—what Kellogg calls "snap." Titanium bikes accelerate more quickly, climb better, and offer better handling at high speeds than steel or aluminum. This means that the average weekend rider will get more enjoyment while exerting less energy, allowing for increased efficiency in every aspect of riding.

Testing this thesis, I found myself piloting a 2003 Merlin Cielo outfitted with Shimano Ultegra components (retail price: \$5,400) through the steeps and canyons of Tennessee's Lookout Mountain region. Compared to the steel frames my budget normally allows for, the titanium Cielo was cat quick, allowing me to keep pace with my riding companions, though I sensed they weren't pushing their outer limits. While our two-hour jog was strenuous, the titanium frame provided an appreciably better level of comfort and control. I was able to sprint with ease on the straightaways, and the bike held a steady centerline at top speeds. Even the tough uphill sections were a relative pleasure.

But performance is only one of the elements that motivate a custom road-bike purchase. For those who can afford it, there's the expectation of superior design. The overarching



merlinbike.com (far right). Photo producer: Karen Huntt Mason

OWNING A CUSTOM-BUILT BIKE MADE OF AN EXOTIC MATERIAL IS LIKE COLLECTING A PIECE OF SCULPTURE, ALBEIT ONE THAT MOVES LIKE GREASED LIGHTNING.





Hands-on craftsmanship: Merlin bicycle-frame parts, called dropouts, cut in-house from blocks of pure titanium. Opposite: Merlin employee Chris Brown and his wife, Cary, set out for Signal Mountain, Tenn.

aesthetic at Merlin is understatement, and this is as much a reflection of the customer as it is of the brand. In an industry known for bright colors, Merlins feature unpainted metal and engraved lugs. The decal work is minimal, and the artistry is dialed down. Owning a custom-built bike made of an exotic material is like collecting a piece of sculpture, albeit one that moves like greased lightning and weighs less than 3 pounds.

But don't be surprised if you never see a Merlin on the road. The company manufactures only about 3,000 bikes annually. (Many large manufacturers produce hundreds of thousands of bikes per year, with the largest producing millions.) Every bike is built from scratch according to its own set of blueprints, and the process takes more than a month. Quality is controlled by a 20-point inspection along the way (similar to the safeguards employed by Lexus engineers). Like all custom-built bikes, Merlins are made one at a time. And there's an artisan's pride that infuses the craftsmanship.

Indeed, to walk through the 25,000-square-foot ABG shop is to see this passion come to life. One's attention is immediately drawn to the gleaming mountain of titanium plates and cylindrical billets that sit in open storage, three stories tall, ready to be transformed. (ABG is the second-largest consumer of titanium in the world, behind the defense industry.) But more overwhelming is the smell: a sharp mix of burnt metal and argon, the colorless gas used to create the oxygen-free environment necessary for welding titanium. Merlin's welders pride themselves on the purity of their torch work, even if they themselves are not cycling aficionados.

Moving across the factory floor one hears the rhythmic *thumpa thumpa thumpa* of the "Terminator," a large pneumatic contraption that tests the fatigue level of every Merlin by applying 400 pounds of load on the frame via steel crank arms, which simulate perpetual sprints. In order for a frame to go into production, it must withstand a minimum of

750,000 of these cycles. To put this into perspective, Lance Armstrong could sustain that kind of power output for only a few hundred yards. But this rigorous devotion to process isn't simply a numbers game. "We're not looking to create a set of technical statistics that will appeal to an engineer," says Brad DeVaney, Merlin's engineering manager. "It's about the elegance."

In smaller side rooms off the main shop floor, craftsmen work on frames at various stages of the process—dropouts and brackets are being fabricated by large computer-controlled cutting machines (known as CNCs); titanium tubes are being mitered (a very precise cutting process that measures results to within 15/1,000 of an inch) for the welders; and near-complete frames are getting a 45-minute buffing treatment (the bike-building equivalent of a Swedish massage) before heading into the final stage of decal and small-parts application.

Yet for all that goes into a Merlin (or, for that matter, into any good bike), the engineers and designers are working from the same basic frame geometry that was in place when the Wright brothers were building bikes. For this reason, most modern breakthroughs in the industry are incremental, not revolutionary.

This, however, doesn't stop Tom Kellogg and the Merlin team from trying to improve on what they've created thus far. Motivated by a thirst for graceful functionality, Kellogg and his merry tinkers will continue to work toward a single goal: creating epic riding experiences for their customers and helping to push the evolution of frame building in the process. "The fact that I get up each morning and still get excited about building bikes is a pretty cool thing," says Kellogg, who knows better than anybody that he's lucky to be in the game at all. □

Learn more about Merlin Metalworks bicycles at [www.merlinbike.com](http://www.merlinbike.com).

#### GREAT RIDES FOR AMATEURS

**Ride The Rockies** (Denver, Colo.), June 20–25, 2004. This annual event features some of the toughest road riding in the U.S. ([www.ridetherockies.com](http://www.ridetherockies.com))

**El Tour de Tucson** (Tucson, Ariz.), Nov. 20, 2004. Designed for cyclists of all levels, El Tour offers everything from a 109-mile perimeter course to a children's fun ride. ([www.pbaa.com](http://www.pbaa.com))

**Tour of Flanders** (Flanders, Belgium), April 3–4, 2004. The amateur ride before the pro race travels the same 169-mile course, though you can opt for shorter distances and stop for Belgian chips and beer along the way.

**Tour de l'Île de Montreal** (Montreal, Canada), June 6, 2004. One of the largest group cycling events in the world, Tour de l'Île is part of Montreal's annual week-long Bike Fest. (800-567-8356)

**Giro delle Dolomiti** (Northern Italy), July 25–31, 2004. This route's pass climbs—often pedaled by some of the biggest names in bicycling—are among the most challenging in Europe. ([www.girodolomiti.com](http://www.girodolomiti.com))

