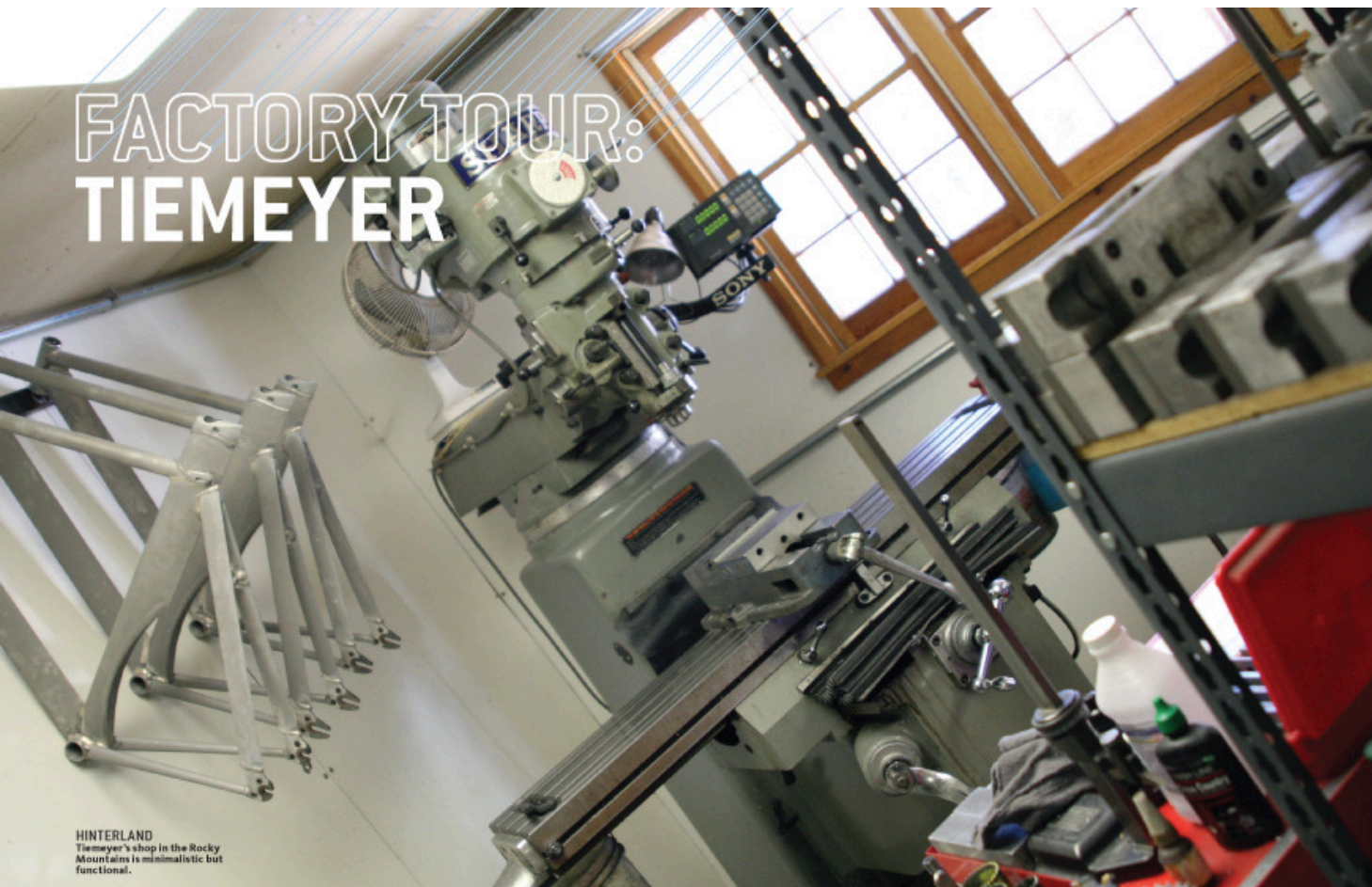


# FACTORY TOUR: TIEMEYER



**HINTERLAND**  
Tiemeyer's shop in the Rocky Mountains is minimalist but functional.

BY LENNARD ZINN IN ESTES PARK, COLORADO  
PHOTOS BY DON KARLE

Among American track racers, Dave Tiemeyer is the go-to guy when racers want more than a specific frame designed for their body, but also when they need state-of-the-art technology and advice to determine their ideal riding position for the events in which they compete.

Tiemeyer has had a hand in building the pinnacle of road, triathlon and mountain bikes, including those that have crossed the finish lines at Tour de France and Giro d'Italia stages, numerous major triathlon wins by Chris McCormack and Michelle Jones, and the long run of world championship,

World Cup and NORBA cross-country and downhill wins of Juli Furtado.

Lately, his frames have his name on them, but that has not always been the case. The bike on which Rebecca Twigg won the world pursuit championship, setting a world record of 3:16.1 in September 1995, had the GT badge on it. But Tiemeyer, then with GT — along with Forrest Yelverton, Nalby Varoqua and others — built it in Colorado. They also built the GT that won the fastest time trial in history. Lotto's Rik Verbrugghe won the Giro d'Italia prologue in Pescara in 2001, averaging 58.97kph (7.6km in 7:44). Still, Tiemeyer frames are continuing to rack up victories at the sport's highest levels.

Since the bankruptcy of Schwinn/GT in 2001, the heady days of building bikes for major international road, triathlon and mountain bike stars are gone, and Tiemeyer is just fine with that. He has been diligently plying his trade far up the same lonely dead-end road above Estes Park, just outside the Rocky Mountain National Park boundary, where he has lived for three decades. While this idyllic spot nestled in a high, mountain-ringed forest seems an ideal place for his wife, Carol, a migratory bird biologist, to watch the movements of her avian subjects, it seems a bit in the hinterlands for a guy building and selling bike frames and an innovative, adjustable bike-positioning apparatus.

"I consider myself to be in the outback of Boulder

and part of the Boulder scene," he said. Indeed, it's possible to drive to his garage in just over an hour from Boulder, or make a day of it with a fantastic mountain road ride there and back.

Tiemeyer's shop is spare and meticulously clean; he and Carol can even park their cars in it every night. He has a milling machine, a lathe, a TIG welder, a frame jig, and an air compressor, and that's about it. He now only builds aluminum frames and sends them out for heat-treating, painting, powder coating, or anodizing.

"I chose aluminum because it lends itself to forming better than titanium, and the aero tubes I've had formed for me are ideal for track frames," he said. It's a material also ideal for custom building. "When we were making carbon frames (with



FULLY ADJUSTABLE  
Tiemeyer selects saddle setback on his PositionCycle.

GT) for Marty Nothstein and guys like that, we could afford to make a mold and only get a few frames out of it. But with aluminum, the larger tubes tend to be a bit heavier, and that's perfect for the stresses of track racing."

As for focusing on track frames (over 70 percent of the frames he makes are for the track), Tiemeyer smiles, "Sometimes you don't pick your niche; it picks you." Tiemeyer started with GT in 1990. After the 1992 Barcelona Olympics, and through the Atlanta and Sydney Olympics, GT was the official bike sponsor of the US team. Project '96, which was directed at winning medals in a stateside Olympics, became focused on the track, where there were 12 medal events compared to only four on the road. US track riders are a close-knit community, and as a former frame-builder to the U.S. Olympic track teams, Tiemeyer is fondly remembered among US trackies.

With the experience of three Olympics, Tiemeyer understands the intricacies of track framebuilding. His "PositionCycle," an adjustable rider-positioning fixture he now sells to bike shops, coaches and sports-science clinics, is easily set up to mimic a vast range of riding positions. Because there are so many different track events, each one requiring a different position, the need for such a fixture is greater for track riders, especially if the rider can only afford one frame.

But designing just one frame to do numerous track events requires a lot of skill. Tiemeyer starts with the riding position, which informs the frame design and component choices from there. "For omnium riders, I'll optimize their position for all three events (on the PositionCycle) and overlay that on the design," he said.

The PositionCycle is not like other stationary adjustable-sizing bikes. It's not built with tubes and standard frame angles and dimensions that can be altered, but rather it is made more like a frame jig, with flat members that slide and rotate along grad-

uated scales. It eliminates the view of the frame, focusing solely on the rider position and showing all of the setbacks, lengths and angles needed to build the frame. It also incorporates rotation of the seat angle without requiring the constant re-tilting of the saddle that many other sizing bikes demand. Tiemeyer also makes an adjustable "TransferSquare" to move the positioning data from the rider's current bike to the PositionCycle.

Power output and aerodynamic drag are critical numbers for track riders, so Tiemeyer's PositionCycle incorporates a CompuTrainer to measure changes in power output with position, and his digitized frontal photos of the rider are used to calculate the rider's virtual frontal area. As a consultant with Colorado Premier Training, Tiemeyer works in the Colorado Ambient Air Tech wind tunnel in Ft. Collins, Colorado, to further refine positioning for those elite cyclists who require it. And as a former aeronautical engineer and helicopter designer, Tiemeyer used his computer-design savvy to write "Position Calc" software. The software not only suggests how to set up the PositionCycle or design a frame from anatomical measurements, but it also suggests how to move the vertical and horizontal offsets of the components if a user wants to explore performance effects when adjusting, for example, the seat angle. "I'm trying to educate the industry about how to describe riding position with as few numbers as possible — with just horizontal and vertical offsets to the saddle and handlebars," he explained.

Tiemeyer is the first to describe himself as a pragmatist and not an artist. "I enjoy welding," he says, "but I focus on performance, not aesthetics." His full-custom Signature aero-tubed and Satellite round-tubed frames have clean welds, but don't expect him to smooth them down; however, he will go the extra thousand meters to make sure the frame has the right dimensions so that you can go as fast as possible.