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Touching Metal - Potts and Cunningham ‘Do It All’ on One-Off Customs

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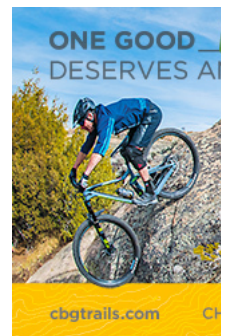

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Potts calls Cunningham, who sleeps in a tree house each night, a human CNC machine.

words and images by Jen See

In certain circles, the names Steve Potts and Charlie Cunningham inspire the reverence reserved for the legendary. The two framebuilders were among the originals. They were an influential part of the loose community of craftsmen who invented the modern mountain bike, building and tinkering and testing their creations in the rolling hills of Marin County, Calif.

Potts and Cunningham built frames and designed components for the nascent sport, and eventually, with Mark Slate, founded WTB. Along the way, they gained a fervid following. Now collectors avidly seek out vintage parts crafted by the two.





Charlie Cunningham’s workshop in Fairfax, Calif., is a metal-working magician’s lair. Whatever Cunningham needs, he invents, such as these magnifying glasses for machining small parts.

“They were the most important people in mountain bikes. It took more than 10 years for everyone to catch up with the geometry and bikes that Charlie was riding in the 1970s,” said Nate Woodman, who owns Monkey Wrench Cycling in Lincoln, Neb., and is an evangelist for the two builders’ work. “They were mythical dudes.”



Titanium requires careful handling, and Potts meticulously measures, machines and cleans the tubing for each frame.



Cunningham designed and hand-machined the many small parts for the brakes on the DIA bike.

Recently, the two craftsmen teamed up to build special, limited-edition bikes for a few of their longtime supporters. Named the DIA for Do It All, the bike is an all-terrain, go anywhere, ride all day machine. Not only will they make the framesets, but Potts and Cunningham are also building many of the components. “We just said, ‘We’re going to do this, and it’s going to be just for these guys,’” Potts said. “They’re going to be really functional, nice-riding bikes that these guys will actually ride.” But they will be collectors’ items, too; Potts and Cunningham are making only four of the bikes.



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Nate Woodman's complete DIA bike with Bruce Gordon 700x43 tires. Woodman expects the DIA to become the bike he rides every day.

The DIA project began when three aficionados of Potts and Cunningham bikes asked them to collaborate on a custom project. They envisioned a bike designed by Cunningham and built by Potts and equipped with Cunningham's meticulously hand-built componentry. After several years of cajoling, Noah Gelner, Mark Janike and Woodman convinced the two craftsmen to build them each a bike.

By coincidence, Geoff Halaburt had a similar idea for a Potts-Cunningham bike. "I think Noah and Nate and company talked Steve and Charlie into the idea a month before I did," Halaburt said. Though he was last to join the DIA project, Halaburt became the chief organizer. He has made frequent trips to shuttle parts between Potts' and Cunningham's workshops.

"Geoff, Nate and Mark are some of the funnest people. They're a total gas. And they ride like you can't believe," Potts said, adding that he and Cunningham are constantly surprised by the collectors' depth of knowledge. "Geoff knows more about my bikes than I do," he said.

Halaburt first encountered Cunningham's bikes as a college student at Fort Lewis in Durango, Colo. "We'd go to these races and there'd be this sea of Pottses and Cunninghams. I just went nuts," he said. "We didn't have things like that, even in Durango. I was just floored by them." Halaburt was desperate to have a Cunningham, but even then they were not easy to come by. At the time, Cunningham would make a batch of bikes every couple of years, and his waiting list was nearly as thick as a phone book.

It took four or five years before Halaburt finally got his first Cunningham in 1992. "I probably have bikes I ride more, but it's definitely my favorite, and I'll never sell it," he said. "He made it for me, and I chased it so hard." As soon as Halaburt got his Cunningham, he knew he wanted another one, but during the WTB years, Cunningham stopped making bikes. Halaburt had moved to the Bay Area and kept trying to change Cunningham's mind.

Until the DIA project, Halaburt never succeeded in swaying Cunningham. All the same, he continued to collect Cunningham bikes and WTB parts. "Noah, he already has a couple custom Pottses, and he's probably one of the biggest collectors of Cunninghams," Halaburt said. "I'm probably third, and the problem is, I'm 6 feet 5 inches, so the only ones that fit me are the ones that are made for me. I had to buy them more as collector things." (In fact, Gelner eventually found a vintage Cunningham and decided not to build a DIA. Raoul Rickenberg is getting the fourth DIA.)

The Do-It-All reflects the Potts-Cunningham approach to framebuilding, which emphasizes practicality. "In the spirit of Charlie, he wants it to be efficient, light and work correctly," Woodman said. The DIA can be a road bike, gravel bike, a mountain bike—it all depends on the whim of the rider.





Charlie Cunningham's Treehouse.



Potts in his backyard shop.

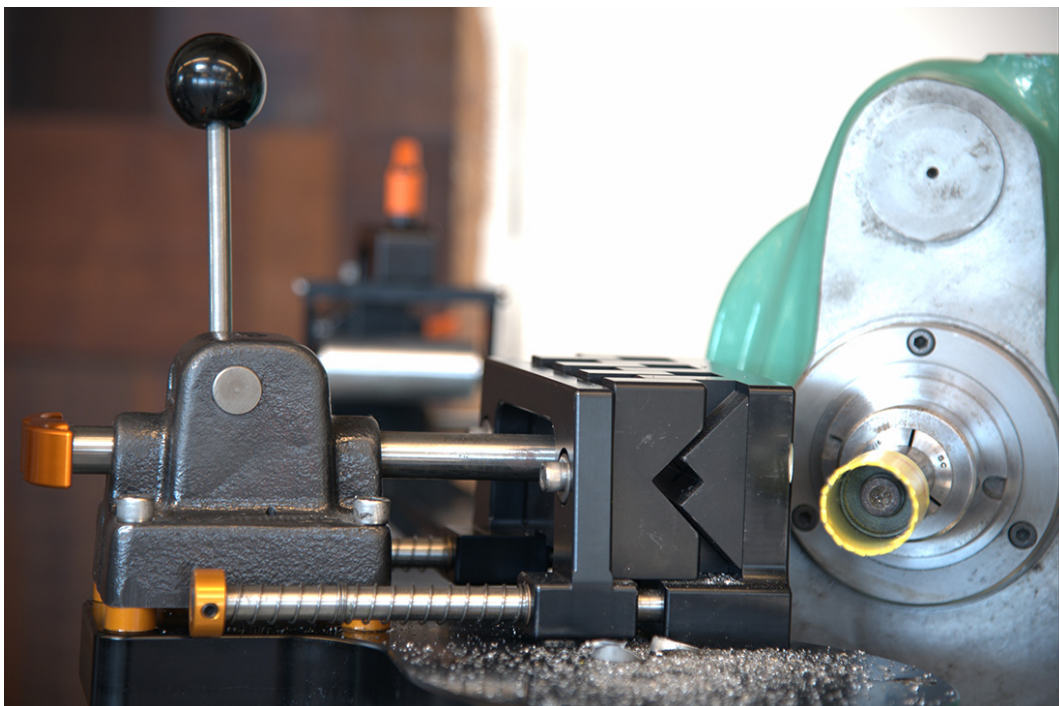
The design replicates an original Cunningham invention. Cunningham's vintage Expedition bikes had drop bars, cyclocross-style wide tires and lightweight aluminum frames. Cunningham has long designed bikes around specific tires. In the case of the Expedition, he created the bike around the Specialized Expedition tire, and the bike was intended to be ridden with a 700 x 35C on the rear and a 27 x 1 3/8 inch on the front.

"The way I picture it, to me, a really cool bike is like the DIA. It's a cross country bike. You're going to get on it every day, and it meets your needs," Potts said. "Charlie and I are a lot the same in that we're sorta practical thinking."

Potts made his first bike for riding in the hills around Mill Valley in the 1960s when he welded an extra gusset onto the seat tube of an old Schwinn cruiser in high school shop class. "I was a Mill Valley kid," he said. "It was really fun; we were biking trails my grandpa walked on. The Golden Gate was built only 35 years [prior], so it was still really country." Potts' original bike weighed 54 pounds, and he sewed the saddle by hand from leather found at a thrift shop.

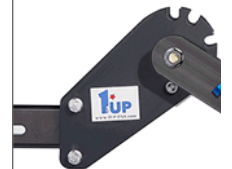
The friendship between Potts and Cunningham runs the length of mountain biking's history. They met in 1979, and together they rode the trails around Marin and dreamed up new and better ways to build mountain bikes. Soon they were designing hubs, brake sets, saddles and just about everything else the newly popular bikes required. They sold their parts to other framebuilders and licensed some of their designs to bigger companies such as SunTour, Trek and Specialized. In 1982 they founded WTB.

The founding of WTB happened, to some degree, by accident. Potts and Cunningham were both building bikes and started sharing the work of building components, such as hubs and seat posts. "And then other companies, like Scot [Nicol] over at Ibis, would be like, 'Hey, can you make 10 hubs for me? Can you make some seat posts?'" Potts explained. "Next thing you know, well, I think we have a component company here."



Titanium requires careful handling, and Potts meticulously measures, machines and cleans the tubing for each frame.

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Cunningham recalls an idyllic cycle of machining parts and heading for the hills around Fairfax to try them out. To develop a saddle, Potts formed wood shapes by hand. Then Cunningham, Potts and Slate went out and rode them. "If you can get the shape where it feels pretty comfortable, then you add padding," Cunningham explained. After years of working together, they now have a way of completing one another's sentences. Potts agreed: "The shape is the most important part. I rode literally on a wooden saddle for months."

As WTB grew, the two framebuilders were increasingly out of their element. Working the desk jobs required to keep the company running smoothly did not suit them as did their lives as independent framebuilders. "Over the years, it morphed into this increasingly corporate life where we were behind a desk all day.... I just love building things. If we're touching metal, we're happy," said Cunningham, who calls himself a metal termite.

Just over 10 years ago, both Potts and Cunningham left WTB and returned to their custom building projects. It was not an easy break-up between WTB and its two founders. Over the years, Potts and Cunningham were the brains behind numerous innovations for the mountain bike, but they did not always profit from them. "We've made millions [of dollars] for a lot of people," said Potts ruefully. "But you know what? I'll be honest, I'm happy." Cunningham agreed. "We contributed to the mountain bike, and we made it a better thing." On balance, the two men seem content with the trail they've taken.

Cunningham in particular was a fish out of water in the mainstream of the cycling industry. "We'd go to tradeshow, and he'd sleep outside or up on the roof, because he didn't like air conditioned rooms," Potts recalled. "He's used to sleeping in a treehouse." Cunningham's hideout sits perched on the hillside above his workshop in Fairfax, Calif., and he has lived there as long as anyone can remember. Cunningham rigged a remote system for pre-heating the bed in the tree house by turning on the heating blanket from the main house where he has his workshop. Cunningham lives like that—inventing what he needs and not much bothering with convention.

In truth, Cunningham can't stop himself from trying to re-engineer familiar parts of the bike. He recently built himself a new road bike and put Shimano pedals on it. But when he set up his cleats, the stock setup did not allow him to bring his feet close enough to the crankset. "I'm still about a centimeter from the crank. I'm thinking of making some new pedal spindles to bring it in a little bit," he said. "I'm going to do that when I get a little time."

His Fairfax workshop is crammed tightly with machining tools, aluminum tubing and the small parts that, when pieced together, form Cunningham's brakes and other components. It's a wizards' lair of bike componentry. Potts calls Cunningham a "human CNC machine" because he can precisely machine small parts. "He's starting from scratch and building a very functional product," Janike said. Several pairs of hand-soldered eye-glasses of differing magnifications sit on Cunningham's workbench.

The clutter looks overwhelming, but Cunningham appears perfectly at home. He seems to know exactly where to find every last bolt. "If you can think of it, you can make it here. There's just so much stuff packed in here. As long as I'm using it regularly, I know where it is," he said. The roof of the workshop is passively ventilated; hot air is pulled up and leaves the workshop mostly cool. Leaves, dust and spiders dot the surfaces, thanks to the ventilation openings.



Potts and Cunningham met in 1979 and have been friends and



Cunningham's workshop is stacked floor to ceiling with spare parts

collaborators ever since.

and supplies. He can make just about any bike part imaginable.

Ibis chief Nicol calls Cunningham Mr. Function. “One of the things about him is that he’s a curious guy,” said Nicol, whose history with Cunningham dates from the early 1980s when Nicol learned framebuilding from Cunningham and Joe Breeze. “If something is working perfectly well, he’ll take it part just because and see if he can make it better.”

Potts is more business-minded, and his spotless workshop matches his meticulous workmanship. “I love being a craftsman, so I want to protect that, and I don’t want to become huge,” Potts said. “But I also have to make it a legitimate business because I’m raising two young men. I’m trying to model being responsible.” Potts’ workshop is behind garage doors milled from the discarded brewery tanks at Falstaff Brewery, and the long, high-ceilinged room overlooks the marshlands of Tomales Bay. The morning sun shines in through the wide windows, the radio plays country music and ducks honk in the distance.

The San Andreas Fault runs down the middle of Tomales Bay, pushing it wider all the time. Potts’ self-built house sits on the western shore of the bay which is moving slowly, inexorably northward pushed by plate tectonics beneath the faultline. The Point Reyes coastline lies on the other side of the steep, rugged hills, which are a hive of secret mountain bike trails. Potts and his two sons know them all. The road to Potts’ house follows the steep contours of the terrain and switchbacks tightly under a canopy of redwoods.

In a peak year, Potts once made 300 framesets. Now he more typically turns out 60 to 80 framesets each year. After many years of welding steel, Potts currently works only with titanium. The material is demanding. It requires a spotless workspace and careful preparation before it can be welded. Potts cuts and mills the tubing. Then he cleans the titanium pieces in an ultrasonic cleaner. “And then I rinse it, and I don’t touch it. I wear white gloves. I buy gloves by the hundreds.” Any impurities will ruin the welds.

When Potts is ready to weld the bike, he puts the titanium tubing together on a jig with bright red hoses that looks like one of Dr. Seuss’ creations. Potts pumps argon through the hoses that he attaches to the titanium tubes. “The weld is completely guarded in argon until it’s cool,” he explained. “When it’s hot, it can absorb interstitial elements like carbon or oxygen.” A good weld is silver and even. “If you have any color, it means it’s absorbed a certain amount of impurity. Then the bike is worthless. Literally. Just throw the bike away.” Like Cunningham, Potts makes and modifies tools to fit his needs, and he makes his own welding cups to direct the heat of the torch precisely where he wants it to go.



Drawings and tubesets on the workbench in Pott's shop.

The DIA bike combines the skills of the two craftsmen. Potts built the titanium framesets to each riders’ specifications, while Cunningham machined the seatposts, stems, bars, hubs and brakesets for each bike. “Charlie is hand-machining the brake studs because they didn’t exist,” Woodman said. The components are custom-built for each bike, so no two of the DIAs will be exactly the same.

Each rider also had specific requests that Potts and Cunningham worked into the final designs. For Janike, Potts is building a bike with couplers, so that it can be disassembled for travel. “I’m a teacher. I’ve been living in Ukraine, and I was in Bangkok for three



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years before that,” he said. “I’ve been all over the place with my bike.” Halaburt’s bike, meanwhile, has specific accommodations for his height.

Though the bikes are one-off collectors’ pieces, they will be ridden and enjoyed as bicycles above all. “All three of us are absolutely looking forward to riding them,” Woodman said. That seems perfectly right; Potts and Cunningham have always ridden and embraced the bike as a wondrous thing.

“Between Steve and Charlie, they’re just the nicest,” Janike said. “And they’re not doing it for the money. They’re doing it for the love of the bike.”

That’s how it is with legends. They do it for the love. And they do it for the joy of laying a silver weld—even, smooth and shining—into the joint of a new-born bike, or of machining the intricate filagree parts of a pair of brakes. To them, such things are worth more than money. As Potts looks out his wide windows and watches the morning mist rise from the Tamales wetlands, his hands follow the smooth curve of the titanium. For him, it’s familiar—he’s tending to the work of building one more perfect bike.

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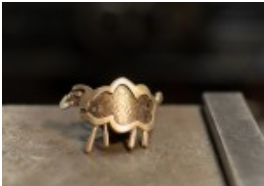
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