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DIRT RAG

MOUNTAIN BIKE MAGAZINE

RIDING WITH *Vikings*

DESTINATION NORWAY PAGE 46

Five Years *PLUS* PAGE 42

A LOOK AT THE STATE OF PLUS-SIZED WHEELS

A New *HOPE* PAGE 34

WONDER CARBON FROM THE UK



PLUS

DIRT RAG GIFT GUIDE

Stuff Our Staff (Actually) Uses

RULES OF THE TRAIL

An Etiquette Refresher Course

CATCHING UP WITH

Endurance Legend Tinker Juarez

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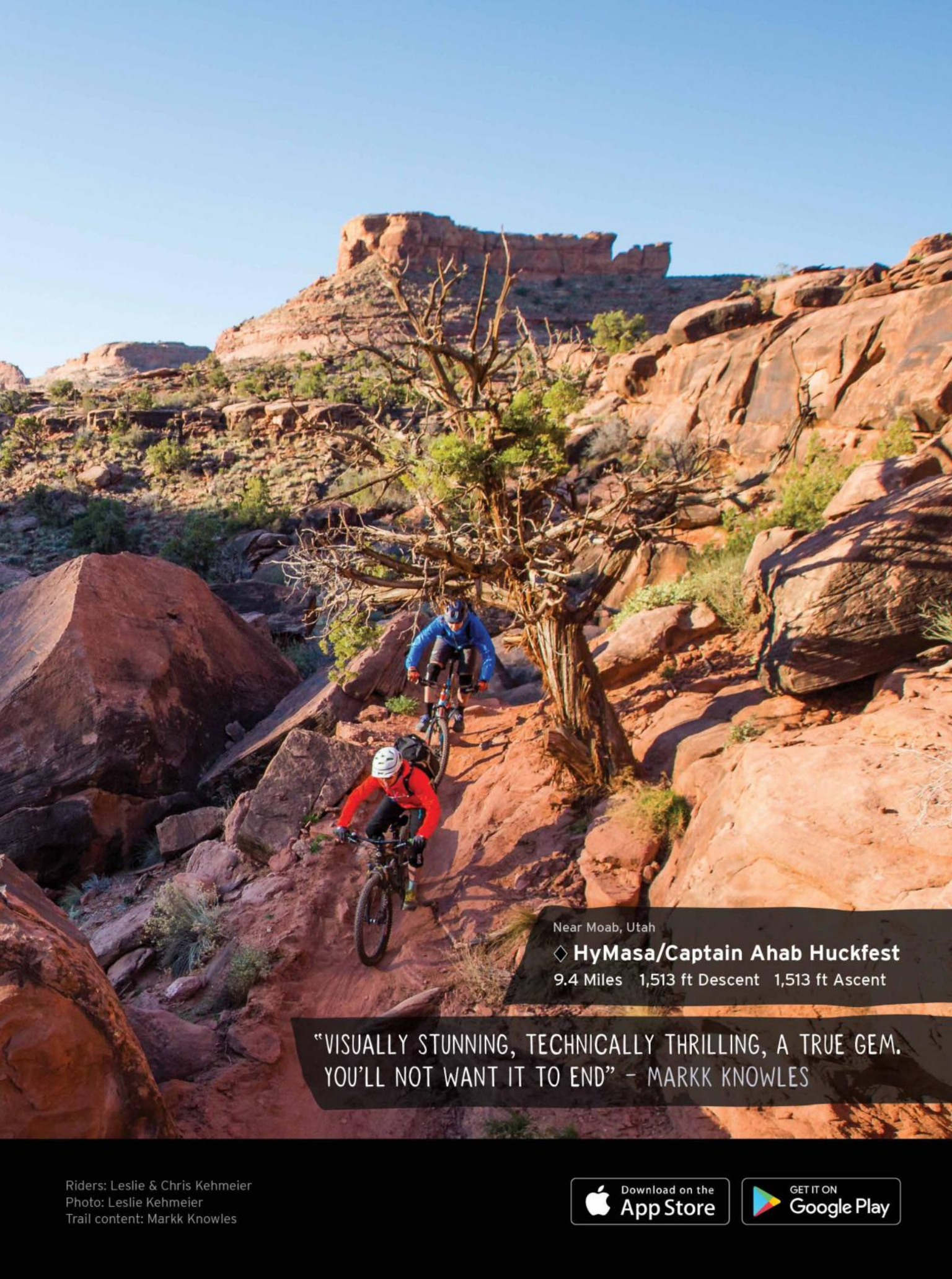


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#202 MASTHEAD

"CYBERSPACE. A CONSENSUAL HALLUCINATION EXPERIENCED DAILY BY BILLIONS OF LEGITIMATE OPERATORS, IN EVERY NATION." —WILLIAM GIBSON, NEUROMANCER

THIS ISSUE

ON THE COVER:

Rider Jaime Hill on the edge of the world in Reinsfjellet, Narvik Region, Norway.
Photo by Leslie Kehmeier.

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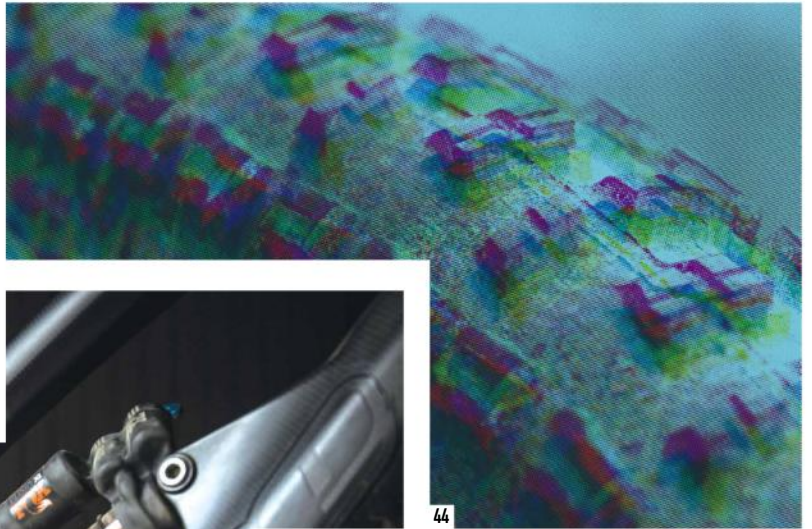
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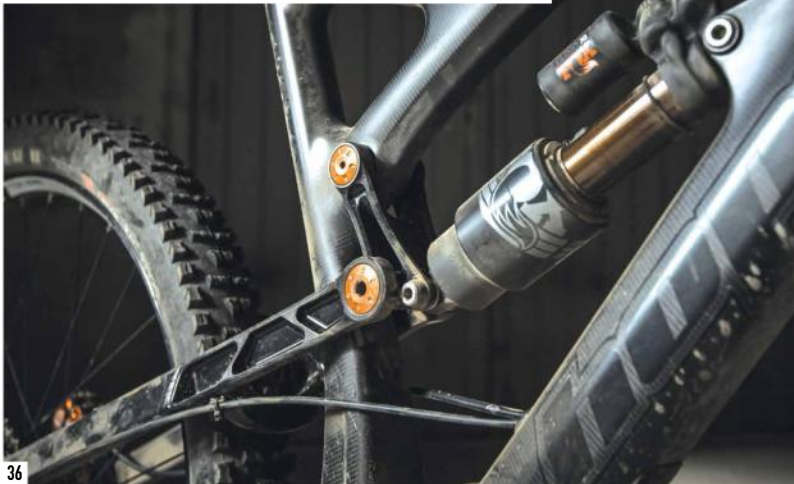
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DT SWISS





PHOTO: ERIC MCKEEGAN

COMRADES,

Thank you for reading this magazine. I don't care if it is your first issue of Dirt Rag or your 202nd: Thank you. While this is technically my 73rd issue with Dirt Rag, it is my first as editorial commander. There will be some changes, but don't worry, we won't be anything but a mountain bike magazine. And, regardless of the new job title, I'm all about collaboration, not fiat.

I'm not out to reinvent the wheel here. Print magazines are an established medium that only become more powerful storytelling tools as the electronic devices we all depend on get increasingly better at keeping us bouncing from topic to topic at a pace that guarantees maximum time wasted while somehow keeping engagement at a minimum. I want this magazine to draw you in and engage, challenge and entertain you while you're taking a

break from the electronic noise.

To that end, expect more articles with in-depth looks that break down complicated topics into understandable concepts. Expect the faces and names in the magazine to become more diverse. Expect travel pieces that immerse you in the local culture as much as the local trails. Expect more weird bikes. Expect more weird people.

Dirt Rag might now be my baby, but most of you also feel a sense of ownership. And you should. The level of support you've shown over the last 201 issues has been nothing short of amazing. I've seen Dirt Rag jerseys, T-shirts and stickers all over the country, and the genuine affection I've been shown by complete strangers because I work here has been heartwarming. I also can't even begin to count the free beers that have found

their way into my hand over the years.

But now is not the time to float by on memories of a glorious past. It has been an amazing journey so far, and the experiences will help me steer this ship into the uncharted waters where the really interesting things happen.

Mute that pocket computer and turn the page. "Hic sunt dracones!"

Thanks for reading.

ERIC MCKEEGAN, DIRT RAG EDITORIAL COMMANDER



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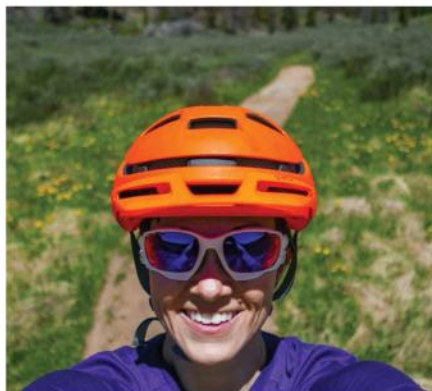
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FEATURED CONTRIBUTORS



ZACH WHITE

Zach has been writing for various cycling publications since the mid-90's, and comes from a racing background dating back to an embarrassing point in time. Initially pigeonholed as a technical writer decades ago, he's made a solid push away from geeking out on the nuts and bolts of cycling, and into the more adventurous side of writing and photography.



KATHERINE FULLER

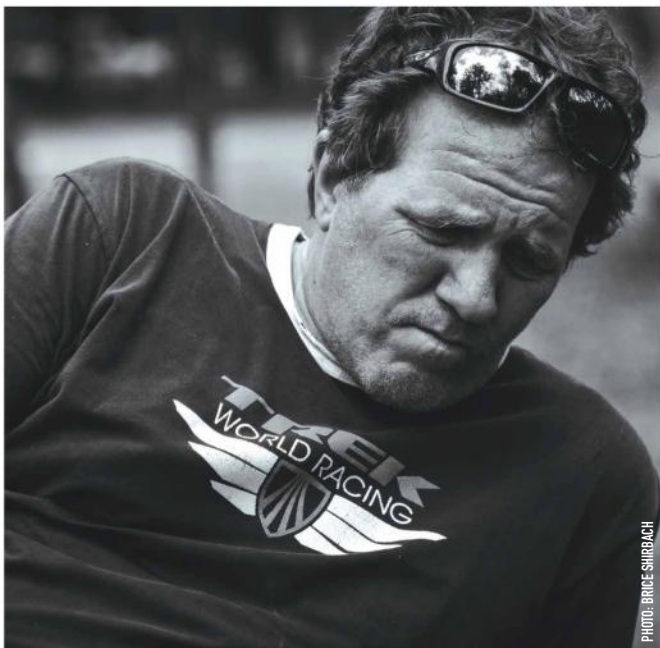
Katherine Fuller is IMBA's marketing and communications director. Even though she is a Millennial, her spirit embodies a retrogrouch. She proudly races a steel singlespeed, wrenches on vintage mountain bikes in her free time and is dogmatic about driving a manual. Katherine firmly believes we need to argue on the internet less and ride our bikes more. Follow her on Instagram @texpatcolo.



CHRIS ESCOBAR

Chris Escobar is an American illustrator who resides in Atlanta, GA. He's also a 12 foot tall, nocturnal, chaotic neutral, half-troll. He survives off a strict diet of gas station coffee, apple cake, applesauce, pineapple and cigarettes. Additionally he enjoys switching from third-person to first-person point of view. I push a squeegee 40 hours a week while doing a mix of MFA work and comics. I have two rats that are pretty cool; Experimental Attack Rat (E.A.R.) and Milky. worsebeings.com

IN OUR THOUGHTS



Ray Petro, the founder of the famous indoor mountain bike park in Cleveland, was seriously injured while riding singletrack in Ohio. He is facing a long road to recovery, but we hope to see him riding and smiling again in the near future.



Our thoughts go out to former access editor and long-time friend and contributor, Philip Keyes, who lost his wife, Dr. Nanyee Lim Keyes, on October 8, 2017 while out on a mountain bike ride. May Philip and his family find peace in this difficult time.

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THE DIRT

PHOTO BY LESLIE KEHMEIER

"In a world where mountain biking, in many places, is developing with a lot of intention, it's refreshing to find places that are natural, untainted playgrounds."

Check out Access editor Leslie Kehmeier's feature story about riding in Norway starting on page 46.





EAT ME: ENERGY BAR

WORDS AND PHOTO BY DAVE JOACHIM

My favorite rides stop at bars along the way. That's my kind of energy bar — the liquid kind! But sometimes you need solid food. Here's a good make-and-take energy bar, locally sourced from your freezer. Take an extra to share.

Makes 20 1-ounce bars



1/2 cup skinless nuts (pistachios, almonds, pecans, walnuts, whatever)
 3/4 cup packed pitted dates and/or dried apricots
 1 tablespoon matcha green tea powder (optional, adds a little hit of caffeine)
 1 tablespoon agave syrup
 5 tablespoons protein powder (pea, whey, soy or hemp)
 1/4 teaspoon vanilla powder
 1/2 teaspoon sea salt
 1/3 cup ground old-fashioned rolled oats (buzzed in food processor)
 1/3 cup golden flax meal
 1 cup cocoa nibs, for coating
 (Combine pistachios, matcha green tea powder and pea protein powder for a "baby poo" green bar.)

Buzz everything but cocoa nibs in a food processor. Mixture should be stiff and hold together when squeezed. Line an 8-by-8-inch pan with plastic, leaving some overhang. Put mixture in pan, cover with plastic and press hard with another pan to compress in an even layer. Chill three hours.

Use plastic to remove entire slab from pan. Reline pan with plastic and scatter 1/2 cup cocoa nibs over plastic. Invert entire slab onto nibs and use plastic to press slab into nibs. Scatter remaining 1/2 cup nibs over top and use plastic to press nibs into top. Remove entire slab to cutting board and cut into 1-by-2-1/2-inch bricks. Cut 20 5-by-6-inch pieces of nonstick pan-lining paper. Wrap each piece tightly in paper and tape shut. Freeze in a freezer bag for up to four months.

Dave Joachim is a best-selling food author and co-founder of Chef Salt who has written and edited more than 50 cookbooks and health books. He's also been on the Cooking Channel, History Channel, Food Network, QVC and NPR. Learn more at davejoachim.com

BEER ME: BELL'S BREWERY: HELL HATH NO FURY

WORDS AND PHOTO BY BURT HOOVIS



Bell's Brewery in Michigan was one of the original players in the craft-beer movement. A baker by trade, Larry Bell became interested in brewing after moving to Kalamazoo back before NORBA was even a thing. In 1983, he set up a home-brewing supply shop called Kalamazoo Brewing Company. Less than two years later, Bell was brewing and selling his own beers using a soup kettle wort pot and an open fermenter, with some of his buddies — later coworkers — helping to manufacture, bottle and distribute his versions of liquid happiness.

By 1989 manufacturing topped 500 barrels per year. Following the opening of a second brewery in nearby Comstock, Michigan, Kalamazoo Brewing Company changed its name to Bell's Brewery in 2006. The Comstock facility was expanded in 2011, providing capacity for the manufacture of over half a million barrels per year. In 2014, a sister brewery, Upper Hand, located in Escanaba, Michigan, was opened. Despite expansion of distribution to most of the United States, Bell has remained true to his roots, with the original Kalamazoo location still selling brewing supplies to the locals.

Although Bell's has a small number of year-round beers (their Two Hearted Ale is the most renowned), the majority of its beers are manufactured as seasonals or limited-run specialty brews. In September, Bell's released a fun little approximation of a Belgian Dubbel called Hell Hath No Fury. It's not clear whether or not the beer was brewed with traditional beet sugar, but a mix of abbey-style yeasts was used and the aromatic and fruity notes are evident. The beer starts out strong, perhaps slightly boozy, with a finish that is mild and agreeable. People looking for an orthodox example of the style will probably find Hell Hath No Fury a bit smokier and less carbonated than tradition would dictate. Not one to get hung up on such things, I really dug this beer as a pairing with bacon-and-salted-tomato sandwiches after more than one early fall ride.

If you're looking to try a couple for yourself, I'd recommend moving quickly. This product run was completed by October, and Bell's has not yet indicated whether another is forthcoming in 2018.

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HANGDOWN IN THE WHEELSTRINGS: BACK THAT THANG UP

WORDS BY WATTS DIXON | ILLUSTRATION BY DAVID D'INCAU JR.



think straight.

One is having someone in a blazer walk in, clutching a leather-bound folder in a hand sporting a huge class ring. Or the click of high heels on my concrete floor. Makeup and a dress. Perfume so strong my eyes water. A collared tech-tee tucked into khakis — a sure-as-shit sign that the time I desperately need to spend trying to sell things to survive is about to be spent instead aggressively justifying why I don't want to save any fucking money by lowering my credit card processing rates.

And one is seeing a car back up.

I understand that race, gender, age, ability and body type inform certain prejudices for certain people, and I can only imagine that in my 20-plus years in retail (now I'm sad) and my 40-plus

years of living (now I'm sadder) I've fallen prey to some form of all of those, whether I'm proud to admit it or not.

My prejudices regarding customers tend to be based on action. And I admit that watching a beige Oldsmobile with its trunk roped shut, or an Audi with the One-Up hitch, pull past a parking spot and then, for no good reason, back into it sets me on edge.

Because it almost always means that the following interaction is going to be, for lack of a better word, taxing.

At best, it means that a bike is about to be pulled from a trunk. A bike so heavy and hopeless that it instantly gives you a headache. Excavated from a swamp somewhere. From a crawlspace. From a bike aisle at Walmart. The arduous task of explaining why this nightmare that was either free or cost less than a decent meal is going to cost a week's salary to make right.

At worst it means ...

... that we're about to deal with the kind of person who sees fit to back their car into parking spots.

Because in my experience, those are the

same people who ask me, "Now, what's your price on this bike?" As if the number we'd already discussed was just a funny joke shared between two extremely close friends. Those are the same people who want to know why I'm charging so much for the two hours I spent on their \$4,000 bike. When they could have just "done the repair myself for free," because, just so I know, they "used to work at a shop back in high school."

Those are the same people who don't say hi on the trail.

The ones who come barreling toward you on that narrow stretch of singletrack and bark, "Rider up!" And not a "Rider up!" as in "Hey, I'm letting the guys behind me know that there's a rider ahead of us and that we need to act accordingly." No. "Rider up" as in "Hey, I'm an entitled dick and you need to get out of my way because I'm kind of a big deal."

Or ... no words at all. Just a strange, alien glare being the response to your own cheerful "Hey, how are you?"

I remember one time that I didn't say "Hi!" to someone on the trail. Fifteen miles into a ride, I'd just had an extremely difficult conversation. I was processing all the heartbreak of everything tied to that and was trying to chase away all of that bad feeling by absolutely burying myself on a stretch of singletrack. As I crested a long grind of a hill, another rider turned the corner. "Hi," he said, politely.

To which I said nothing.

That is, I tried to say something, but nothing came out. The nexus of absolute exhaustion and a poorly timed inhalation. Thirty seconds later, when I was finally able to shout "Sorry! Hi!" at the top of my lungs ... it was too late.

I wonder what that rider thought of me. If it affirmed his own profile of "those tattooed singlespeed dicks. Too cool to say hi." His own prejudices informed by action, by a few isolated experiences confirming his theories on how certain swathes of the population behave.

Or I wonder if he realized that, triggers aside, we're all just flawed assholes. Buried in our heads as we process some level of heavy and heartbreak. And that to anticipate a behavior is, on some level, to manifest it.

I suppose that the next time I back my van into a parking spot, I'd do well to remember that. ■

From the vantage point of the front counter of the shop, even with the massive blind spot, you can see quite a bit of the outside world. You can see the busy intersection of Spring Garden and Chapman, where in all likelihood some poor bastard is trying to make an ill-conceived left-hand turn that will end only in tragedy. You can see the idiot driving his car in the bike lane, impatiently passing on the right the five cars that are patiently waiting for the one car to turn left. You can see the pretty girl walking toward the bakery who, upon closer inspection, turns out to be a 70-year-old homeless man (with a surprisingly sexy walk). You can see the guy who likes to wait in the middle of the road for the bus, earbuds and eyes plugged deafly and blindly into his phone. You can watch people pull up to the front door.

There are certain ... triggers as a retailer. Things that instantly put me on edge. Some small, some large. One is someone in uniform walking in the front door. Be it a cop or a fire inspector, that immediate feeling of "Oh, shit ... I don't think I've done anything wrong, but I probably have, and everything is about to go south in spectacular fashion" overwhelms my ability to

Watts owns Revolution Cycles in North Carolina. He's been involved with some facet of bicycle retail for more years than he hasn't and has pretty much seen it all. Maybe. He'll be writing about day-to-day happenings in the trenches of bike retail and offering his unique and definitely skewed take on it all. To ask him a question about etiquette, tell him a story or vent a little, email editor@dirtragemag.com.

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WORDS AND PHOTO BY STEVIL KINEVIL



Toward the end of September, while visiting Alaska with my dad, my phone rang. I looked at the caller ID and saw that it was my friend Bob. “Hey, man, what’s cracking?” I said. Forgoing any banal chitchat, he asked me straight away if I’d heard recently from our friend Leroy. After I’d said that I hadn’t, he went on to tell me that, a day earlier, Leroy’s girlfriend had come home to find his wallet and keys but that he was nowhere to be seen. Over the next three days I spoke with Bob twice more, when finally he said they were assembling a search party.

“How lost could he be?” I wondered to myself. “The guy lives in Marin. Maybe he just went up to the hills for a few days, or ran off with some random lady he met or was on a drug bender,” none of which was that far out of the realm of possibility. From that point I was on a ferry headed south through Canadian waters, so with my phone off, I spent the next two days watching the world go by. Upon our eventual return into the port of Bellingham, Washington, I turned my phone back on and almost immediately received a call from Bob. “Hey, man, um ... They found him. He hung himself up the hill from his house.” In response, “No ...” was all I could muster.

I met Leroy in 1993. He was standing in front of the bar, leaning against a yellow Ventana one-speed with a polished aluminum Girvin fork, and across his face was a shit-eating grin I’d come to learn was his natural expression. In the early days of singlespeed mountain biking, he was a bit of a local legend

both on and off the bike. Within a year or so of our initial meeting, I found employment in San Francisco as a bicycle messenger and soon discovered that this was Leroy’s vocation, too.

We became fast friends, and when occasionally crossing paths with one another downtown, all it took was a simple nod and suddenly we’d be neck and neck in a cross-town sprint for nothing more than that day’s bragging rights against the other. This friendly rivalry transcended the streets to mountain biking and, later, cyclocross races as well. Nearly every race would eventually become a derby between the two of us, quickly teaching me the importance of a good pair of sharpened elbows. In time, the student became the teacher, and on more than one occasion I deftly deflected one of his well-timed shoulder checks, sending him ass over teakettle into the bushes. I never had a big brother, but during those years, he was everything I could want in one and more.

Over what at this point is potentially the equivalent of a tanker truck’s worth of coffee, we discussed music or girls or art or traveling, and everything in between. He was one who’d sympathetically lament my struggles and defeats and sincerely celebrate my victories. He was wise beyond his years, but was always happy to slum it with a simpleton like me.

As the years passed, we drifted apart, and he built a separate life away from those days, but we’d keep in touch through Bob or the occasional meeting at the coffee shop, where we’d reconnect as if no time had passed at all.

As I’ve related to friends in the interim, what breaks my heart the most is not so much that he killed himself; I guess I’m not even terribly surprised. What sits in my stomach like a rock and has kept me awake every night since I got that call is that I no longer occupy the world with him, and the memories we shared together I now hold onto alone.

In tribute to him, and to those who loved him, I’ll include an anecdote I wrote a couple of years ago. To the best of my recollection, I declare it to be the absolute truth.

“The year was 1997 or so, and I was standing in the dusty pit at the bottom of the Sea Otter Power Post ‘extreme’ section — a steep descent with a jump at the top and several 2-plus-foot drops in a row before a deep, sandy hard right-hand turn. The section was full of bodies and bikes and all manner of crashes.

Then comes Leroy on a woefully clapped-out and cobbled-together one-speed ‘cross bike. He slaloms through the carnage and over all of the drops without ever touching his brakes. Finally, at the bottom, he leans hard, roosts through the duffy turn and is gone in a flash, leaving the crush of spectators in absolute pandemonium. Everybody has that one defining moment when they realize just exactly what sort of bike rider they want to be.

Leroy provided me with mine.”

He was in every way a king of all dirtbags, and I’m honored to have been counted as his friend.

I love you, buddy. Here’s to catching up on another side. ■

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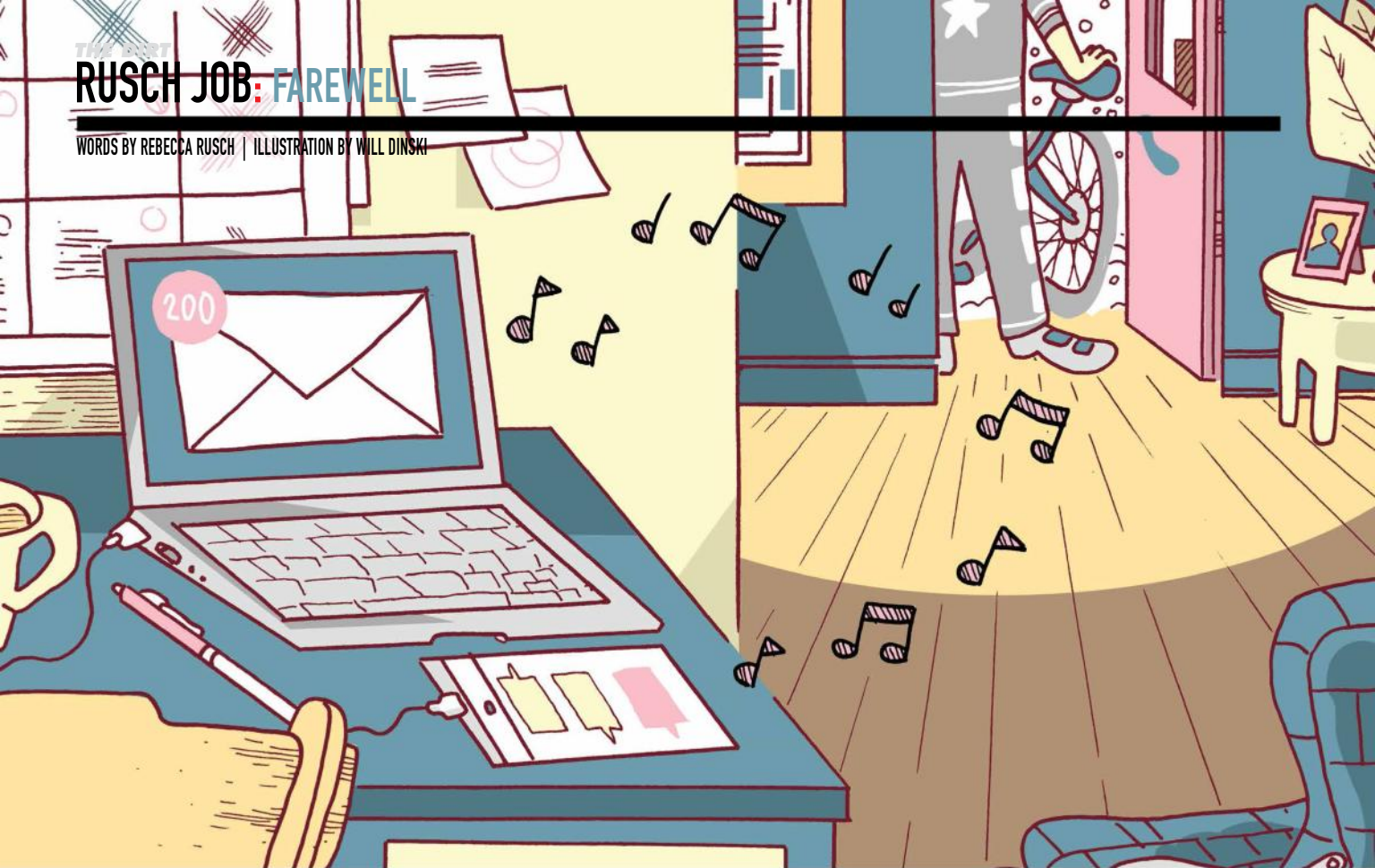
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RUSCH JOB: FAREWELL

WORDS BY REBECCA RUSCH | ILLUSTRATION BY WILL DINSKI



I believe stories need to be told, whether it's by your grandmother or a newscaster or a regular schmuck who just did a big bike ride. There is value in hearing someone else's story and having that feeling of relatability, inspiration or admiration. Reading about someone else's journey helps solidify and focus our own.

Three years ago, this athlete who doesn't consider herself a writer was called out on just that. I was approached by Mike Cushionbury, Dirt Rag's former editor-in-chief, and challenged to sign on as a regular contributor. I've grown and learned from the arduous task of writing this column. And I hope you have gained something from reading it. But by giving you my stories and sharing a bit of myself, I also lost something.

Or maybe you've stolen a part of me — though that wasn't intentional and I gave it willingly. A couple thousand years ago, Socrates said, "An unexamined life is not worth living." He was right. The time you and I have spent together has helped me grow. Being forced to reflect, contemplate and ultimately deliver a message worth reading in this column has been a highly rewarding endeavor. I toiled and stressed over the right words, the most impactful content to give you. But by giving my stories to you, what suffered was my ability to collect more stories, to go on more adventures, to feed my soul.

Since I started as a Dirt Rag columnist in August 2014, my career has taken some exciting turns that have gone far beyond bike racing. I've written my autobiography, I went in search of my father's crash site in Southeast Asia and released a documentary film about that experience and I've seen my signature bike event, Rebecca's Private Idaho, more than triple in size to more than 800 riders. And, of course, all of this happened while working as a Dirt Rag columnist. That is the stuff that dreams are made of.

But to achieve all of that, I had to trade time on the trails. All of us have to balance work and life. I am extremely lucky that riding a bike is my job. But it is also my therapy, and I need a daily dose for my own sanity. More requests on my time have meant fewer opportunities to ride my bike. You never value something as much as when it's taken away.


Maintaining white space in our daily lives is the trending topic right now in business podcasts. They talk about how creativity, innovation and productivity all require regular doses of quiet, unstructured space for our brains to process information and be at their best. Meditation is also a really big deal right now for the same reasons. We need to give our brains a scheduled break with unscheduled activity. While being busy with commitments

like this column, I tried all of the ancient but trendy fixes, like meditation, journaling, breathing and stretching, to open my mind, relax my soul and fuel my creativity. Yet none of that really worked.

All I really needed to do was ride my bike more. Cycling is my white space, my therapy, my time to let creativity flow and thoughts run free without the distraction of any digital gadgets or deadlines looming. I didn't need a new way to relax and be my best mentally and physically. I just needed to ride my bike more regularly. I lost part of myself and now I need to take it back. Which means I need to sign off and say farewell, at least for now.

Storytelling is as old as time and I hope it continues forever in long format with periodicals like Dirt Rag. Maybe once I've ridden through a few more adventures, I might be back with some new stories — perhaps another documentary or even book No. 2.

Thank you for the challenge, the connection and for releasing me from this commitment. I'm grateful for our time together. But now it's time for me to go on a bike ride, and I just might not tell anyone about it. Maybe you should too. I hope to see you out there.

Be good,
Rebecca 

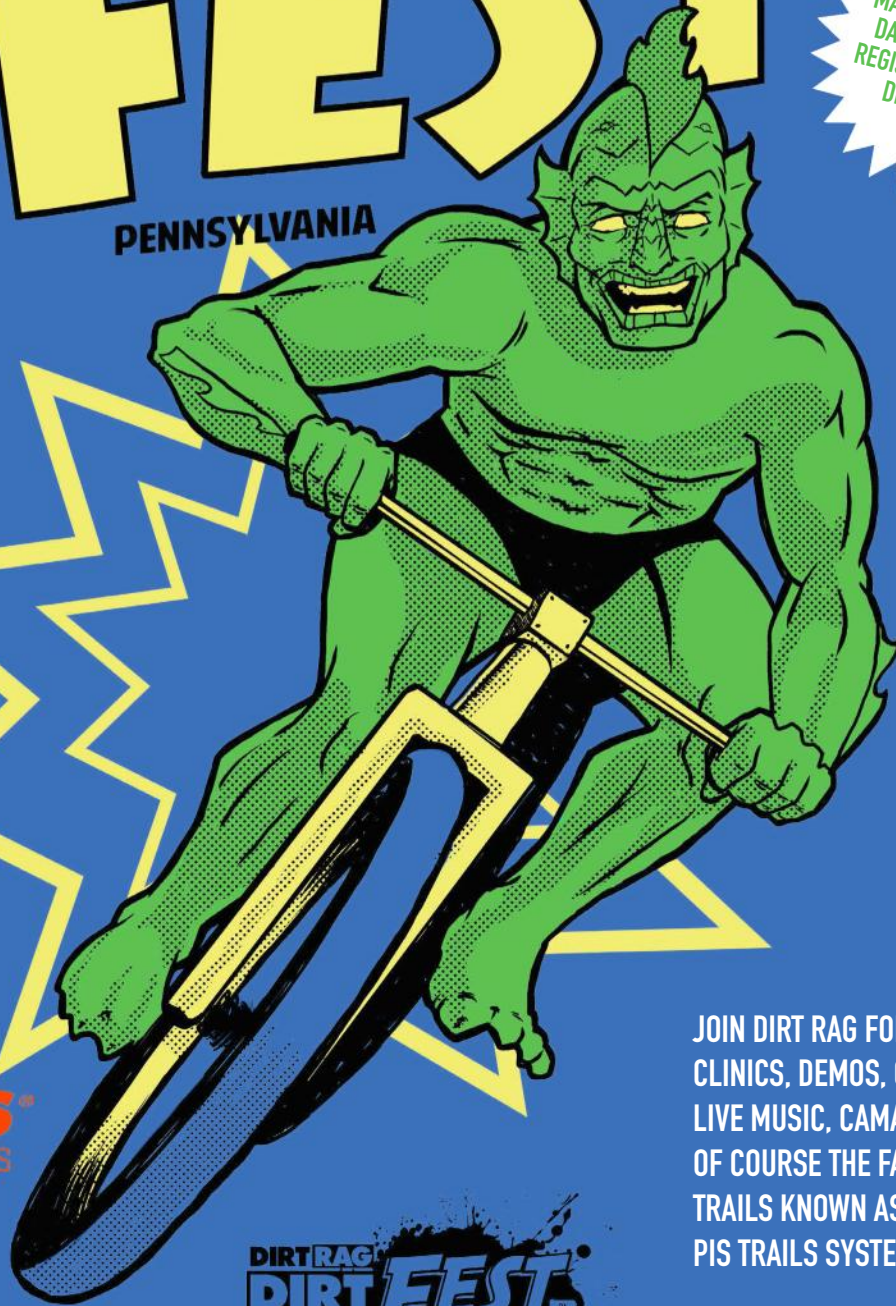
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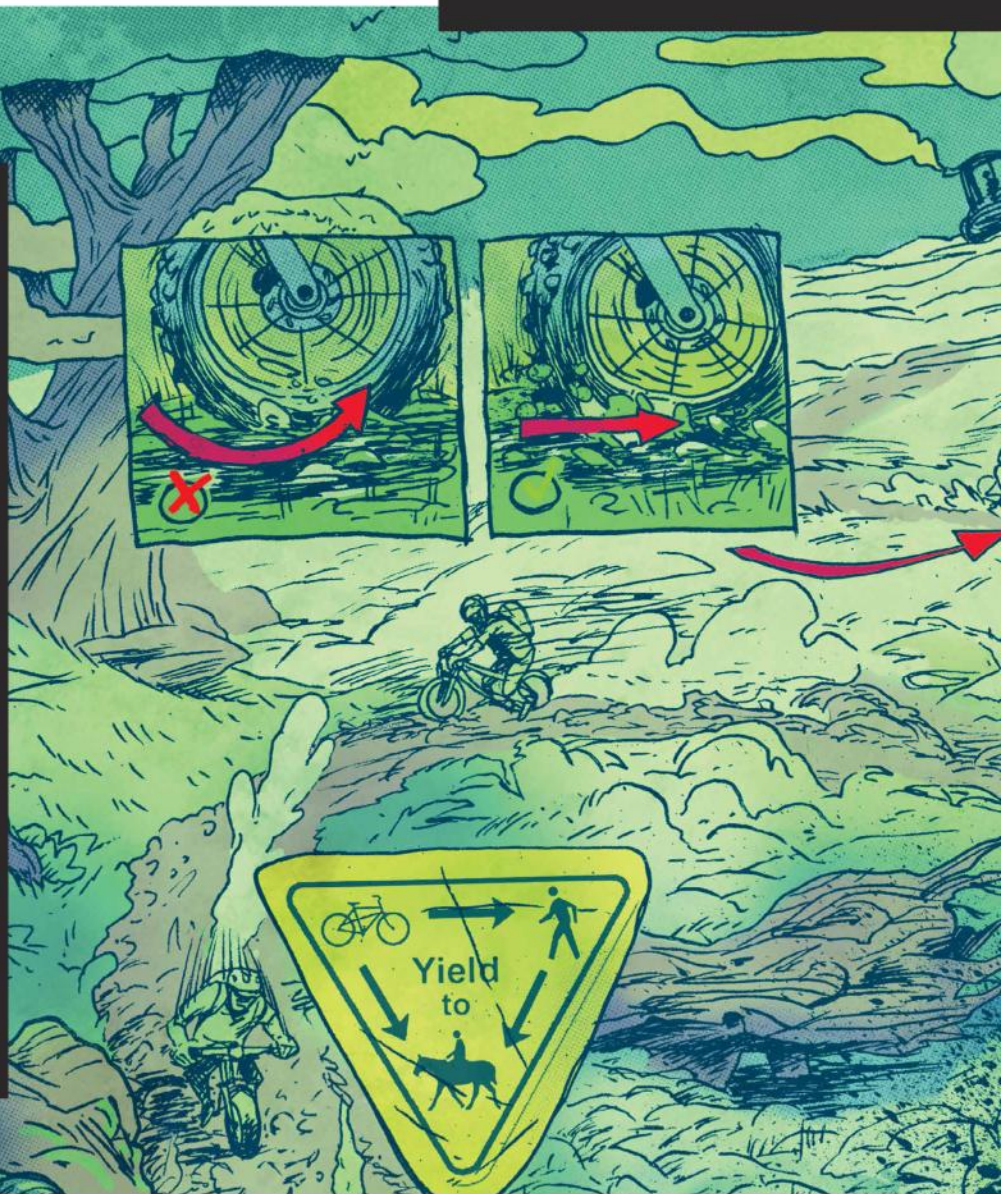
PA.DIRTRAGDIRTFEST.COM

WORDS BY KATHERINE FULLER | ILLUSTRATIONS BY CHRIS ESCOBAR

If we could all just live by the great commandment of “Don’t be a jerk,” mountain biking wouldn’t need an etiquette guide. But we have met the enemy and he is us. Recent IMBA surveys indicate even mountain bikers recognize that the biggest threat to access is ... mountain bikers. The good news is that the biggest benefit to access is also mountain bikers. We volunteer more, fund-raise more, organize more, give back more, smile more and know more about sustainable trail-building. Like it or not, we had to earn our access to multi-use trails. If we intend to maintain it — and if we want to make it even better — we have to keep working at it. With that, here’s a reminder of the official Rules of the Trail that every mountain biker in the know knows, plus a few for the modern era. Because we’re all in this together.

THE OGS

IMBA’s Rules of the Trail have been around for nearly two decades and have been adopted by land-management agencies nationwide. These six points compose the most basic guide for responsible riding — an act that is the simplest, most powerful pro-bike advocacy tool available.



RESPECT THE LANDSCAPE

This cardinal rule is all about loving your local trail-builders and the physical environment. If your trails aren’t built to withstand being ridden when they’re wet, don’t ride them when they’re wet. Rolling through mud looks cool in ads but causes rutting, widening and maintenance headaches. Ride through standing water, not around it. Ride (or walk) technical features, not around them. Do not alter trails without permission. Pull over to let others pass instead of careening off trail. Pack it in, pack it out. If you remember nothing else, remember this: Keep singletrack single!

YIELD

That old yield triangle showing bikers giving way to equestrians and foot traffic has been formally adopted by land managers since the early 1990s, at least. It is also a big part of what allowed us to gain access to so many multi-use trails. Descending riders also yield to climbing riders, unless indicated. That’s not a buzzkill suggestion; it’s harder to restart if you stop while climbing. The majority of us have a longstanding handshake agreement on this one anyway.



RIDE IN CONTROL

Speed and inattentiveness are the primary sources of trail conflict among user groups. Slow down to pass others and be extra aware when riding trails with poor sight lines and blind corners. Announce thyself when you wish to pass; your loudly buzzing rear hub is not enough. Saying hello or using a bell goes a long way. Use extra caution around horses, which are unpredictable. The best thing to do is ask the rider the best way to get around their horse.

PLAN AHEAD

Volunteer bike patrollers are great, but they're not always around to bail you out. Make sure to roll with water, snacks, tubes, tools, a rain jacket, a lucky rabbit's foot or whatever you think you need for the ride you're undertaking. Strive to be self-sufficient, download a trail app on your phone for navigation and share your riding plan with a friend if you're heading out solo.

MIND THE ANIMALS

Depending on where you ride, you might encounter snakes, deer, bears, alligators, pumas or chupacabras. Leave them be. In some places, running cattle and disturbing wildlife are serious offenses. If you're riding with a dog, respect leash laws, be prepared to take care of Fido and ensure your pup is obedient enough to not cause problems for you, other trail users or wild animals.

RIDE OPEN, LEGAL TRAILS

At this point, there's not much left to say. Don't be the person who gets your entire mountain bike community blacklisted or sets back your area's advocacy efforts by a decade. If there aren't enough trails or variety near you, IMBA and your local mountain bike group can help. Your engagement will be welcomed because it takes a village to create, enhance and protect great places to ride.

THAT NEW NEW

Think of it this way: The ratio of riding your mountain bike to writing comments about mountain biking on the internet should be something like 1,000,000,000 to 1. Unless, that is, you are providing trail conditions updates. That's helpful. Thank you.

**GIVE BACK**

Mountain biking thrives on support from individuals, and it's not just our trails that benefit from our volunteer ethic. Our reputation has been built on it and our access is derived from it. While you don't have to wield a Pulaski every weekend, our community still needs you. Give money to your local mountain bike organization; donate gear to your local NICA team; write letters or attend meetings in support of mountain bike projects. Ultimately, there are no trail fairies.

EDUCATE YOURSELF

Hard work, education and dedication builds trails; vacuous complaints do not. Get to know your local situation before you waste hours mouthing off into the internet void. Access, trail types, the pace of construction and more are determined by a myriad of things, from land managers and the physical landscape to maintenance budgets and environmental concerns. The situation is unique and often complicated everywhere there are trails, but many mountain bikers have managed to figure it out and are having success in all 50 states. They could use your support.

LIVE AND LET LIVE

The mountain bike community is diverse, from the types of trails and bikes we prefer to where we come from and why we ride. We should respect and encourage one another as brothers and sisters of the bike, full stop. Petty infighting only splits and weakens our community. Remember: Don't be a jerk.

HAVE FUN

Isn't that what this is all about? 📷

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CATCHING UP WITH: TINKER JUAREZ

WORDS BY TREY RICHARDSON | ILLUSTRATION BY STEPHEN HAYNES





A quick primer for those of you who don't know David "Tinker" Juarez.

Tinker got his start with a very successful BMX career in the '70s and '80s. He transitioned to mountain bikes in 1986 and went on to win eight national mountain bike championships (four cross-country and four endurance). He also has a World Cup win under his belt and was chosen to be on the United States Olympic Mountain Bike Team for the sport's Olympic debut in 1996 (he was chosen again in 2000). If that isn't enough to sell the "living legend" narrative, I should mention he has also kicked some considerable ass on the endurance road circuit as well.

Now, at 56 years old, he doesn't often enter races in his own age group, choosing to square off against men half his age in the pro/open endurance classes instead. His current race schedule, which finds him in a different state or country many weeks of the year, far exceeds that of his peak competitive years, which may have consisted of six or seven big races a season.

I took a lot from this interview — not just being in amazement of Tinker's sheer talent and ability to persevere through many struggles and keep racing, but also of his attitude. I get the sense that if Tinker's career ended tomorrow, he would simply reflect on how awesome it was.

Off the top of my head, you're the only professional mountain bike racer who was racing in the very beginning and still continues to race today. Give me a quick rundown on how it was back then compared to today for you.

You know, man, it's sad today compared to back then (early to mid-'90s). It was big back then and you could live pretty good racing bikes. You went to races and got paid for doing good. Sponsors were excited because we had, like, ESPN and NBC giving us coverage, so they were eager to pay out. Now most racers have to jump around to get a decent ride that pays anything, and it usually doesn't last long. The pay isn't near what it used to be and it seems to really thin out those at the top level. It was good while it lasted, I guess.

How are you getting along now? I can't imagine it's been easy.

Yeah, man, it's not easy, but I get by. I made some pretty good money back when things were big, and I'm not saying I spent all of my money wisely, but now I just try to get by being smart and careful. I'm stable enough to have a house and keep up with everything, but that's about it. It works right now, anyway. I'm really happy that I can still race and happy that a lot of people want to invite me to come do the race they're putting on and pay my way, plus even a little extra for showing up. If I can make \$500 or more and not have to pay any expenses, that's a pretty good payday for me right now.

So the race promoters invite you and offer to pay you to show up and race?

Yeah, man ... my sponsors don't pay me hardly anything anymore. Most all of my income comes from race promoters paying me to do their race. It's great, as they pay all my fees plus a little extra for my time. Most of the race promoters are former racers or people that really love mountain biking that may have known me from years ago. I don't ask for too much because I know they have a hard job and don't make very much, so I want to do the right thing — what we both think is fair.

Is this why you do such an excessive amount of races that are literally all over the world — because you have to?

That's a good question, man. I love racing and the people associated with it. I guess because I've done it for so long, it's pretty natural. It is hard because all I really want to do is hang out at home with my son sometimes. I don't have much of a choice, because we have to eat, but I wouldn't do anything differently.

So how are you not on the company payroll working with product and team development and being, what seems deservingly, a decently paid ambassador of the sport and your sponsors? Is what you're doing sustainable?

I get a contract every year so far, but I don't really know if I am going to or not till it happens. I know ... well, I do think sometimes that I could be doing better. Honestly, I'm glad to be on this ride and don't know how long it will last, but if Cannondale wants me to ride their bike, I'm out there trying to advertise their bike; I'm a brand for their bike. I feel like I'm lucky and I'm glad to promote them. I hope I get a contract every year, but I'm not in charge of that.

A lot of my friends tell me I should be a lifetime sponsored rider or something, but I don't do very much promoting of myself and never pushed those boundaries. I will do whatever Cannondale asks me to and hope I can keep racing for them. I don't have a lot of communication with Cannondale and don't have an agent or anything because I can't afford one. I kind of cross my fingers and hope something happens.

You've stuck with Cannondale for 23 years. Has no one else approached you?

I think a lot of people assume I'm glued to the brand, and I am emotionally, but I think I don't get approached because most people assume I'm set for life and there isn't any point in approaching me. I guess that's it. If I had a company approach me and it sounded like a good deal, I'd be really happy to have more support, because I need it. I'm pretty easy to please, as I love what I do. I'm not like Brian Lopes. That guy is an amazing talker and represents himself well when it comes to having sponsors. I don't get how he does it, making so much; he just knows how to sell it. It's just not me, I guess, and I can't pay someone to do it. I do have a friend, Steve



I STARTED RACING BMX WHEN I WAS 13 AND TURNED PRO WHEN I WAS 15. IT'S THE ONLY THING I'VE EVER DONE. IF I DID HAVE TO STOP RACING, I HAVE A FRIEND THAT HAS A [WELDING] BUSINESS. I DON'T KNOW ANYTHING ABOUT WELDING, BUT I KNOW HE HAS SOMETHING I COULD DO.

Herrera, that owns a shop here that is offering to talk to some companies, so I hope something comes of that.

What about side gigs? Do you do any PR through your sponsors, like appearances or even youth-development camps they sponsor? Is that something you want to do?

No, nothing else but racing. I only race and really depend on getting appearance fees. Cannondale doesn't pay me much — not enough to survive or anything. Years ago they paid me pretty good and would ask me to show up to some shops and other events, but that was a long time ago. Times have changed and now I do things on my own. I try to visit shops where I'm racing all the time, and [I] really enjoy it. That's how I try to promote myself. I've had a lucky life and appreciate all the fans.

How's your personal life outside of racing?

Yeah, my life is really awesome, man. My son and I get to do a lot of things and he's a super-good kid. It has been a stressful couple of years because of the divorce I've been going through being pretty rough on me, but things are starting to work out and I feel a lot better now. I have him 50 percent of the time and being a dad is the most important part of my life. My mom has always been there and raised me throughout my career. I love that she still supports me the way she does.

You've been a sponsored pro for over 40 years. How much longer can you go?

You know, I've thought about it and figure once I don't have a contract and am paying out of my pocket to race, I'm done. There wouldn't be a way I could do it.

If racing bikes wasn't a part of your life, what would you be doing? What will you do?

I can't answer that. I never had to think about it. I started racing BMX when I was 13 and turned pro when I was 15. It's the only thing I've ever done. If I did have to stop racing, I have a friend that has a [welding] business. I don't know anything about welding, but I know he has something I could do. ■

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WV.DIRTRAGDIRTFEST.COM

DIRT RAG
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GIFT GUIDE





Four Things for the Recreational Mountain Bike Parent

BY TRINA HAYNES

MARIN HAWK HILL \$1,500

The full-suspension Hawk Hill does a great job of keeping the price down while not sacrificing all the positive things needed for a real mountain bike. The Hawk Hill comes equipped with competent componentry; the Shimano Deore drivetrain and hydraulic disc brakes get you going and stopping while a RockShox Recon Silver RL fork takes the hits out front. While the Hawk Hill does not come with a dropper post, the frame has internal cable routing that's ready for the upgrade.

As the token mom on staff, I work in a ride with friends or with my partner maybe once a week. Investing in a higher-priced mountain bike just doesn't make sense to me, but that does not mean I want to sacrifice the fun factor by buying a low-end bike. Look for the full review in Dirt Rag #197.

marinbikes.com

KETL MOUNTAIN APPAREL ¾ SLEEVE JERSEY \$100

Ketl Mountain Apparel has taken some cues from outdoor-specific apparel and infused them into bike clothes. The fabric on the ¾ sleeve jersey is Polartec Power Dry, which is temperature regulating, moisture wicking and quick drying. The top is fitted but not too tight and has a henley style four-button front, a chest pocket with an eyewear loop and an earbud loop in the collar. The ¾ sleeve jersey is stylish enough to be multi-useful and would work for any kind of riding. I even found myself wearing the jersey as a day-to-day top to the office.

ketlmtn.com

KETL MOUNTAIN APPAREL OVERSHORT \$160

The Ketl Overshort is a knee-length short that is comfortable and durable. Like the Ketl ¾ jersey, the shorts are fitted but not tight and are great for layering. The shorts are a double weave, breathable, four-way stretch Schoeller fabric with a gusseted crotch and reinforced rear panel. The waist is adjustable; the legs are wide enough for kneepads, and the rear facing hip pockets are perfect for a phone. These shorts are super comfortable, breathable and have become personal favorite.

ketlmtn.com

BEDROCK CAIRN SANDALS \$98

These sandals are great for pre- and post-ride use, as well as day-to-day sandal needs.

Bedrock Sandals assemble all their footwear in a small factory in Richmond, California.

The brand is eco-friendly, giving a donation of at least 1 percent of sales every year to an environmental nonprofit. They also have a resale program to keep sandals out of landfills. The Cairn Adventure Sandals have a flexible sole and are lightweight making them great for travel and packability. They fit easily into a pannier or backpack, and the tread offers enough traction for light hikes. The adjustable top strap ensures the sandals is secured to your foot, and I found the strap system to be better than other sandals I've tried. The toe strap is a softer material making them comfortable to wear all day. I use these sandals consistently over the last six months for hiking, walking the dog, water play and casual riding to the park with the kiddos. They are comfortable, lightweight, durable and stylish. The Cairn Adventure Sandal is available six different colors and can be purchased directly from their website, or use their online store locator.

bedrocksandals.com

Gifts for the Bag Hoarder

BY ERIC MCKEEGAN

PORCELAIN ROCKET ALBERT \$225

Are you addicted to bags? Addicted to dropper posts? Addicted to bikepacking? Yes? To all three? Then Albert is the salve to slake your desires. A minimal metal frame is bolted to a pair of machined aluminum mounts sandwiched in the seat clamp with the saddle rails. A set of straps loops around the seat rails to keep everything cinched up tight. The pack and included dry bag are made by Porcelain Rocket; the 4130 steel frame is made by Hunter cycles, and the aluminum bits are machined in Canada. All this stuff is designed to make it possible to run a big seat bag and still use the dropper. I'm able to run this bag with a 29x2.3 tire and only lose about 10 mm of travel from a Fox Transfer. This bag is built for the daily abuse of true backcountry touring.

porcelainrocket.com

GREEN GURU STAND-BY TRAVEL PACK \$325

Travellers are pretty picky about bags, and rightly so. Each trip requires a different selection of clothes, gear, and increasingly, electronics. Green Guru recognized those needs and launched this modular bag system on Kickstarter in 2015. It consists of a main pack, a pair of lightweight ditty bags, a briefcase/messenger bag and an internal divider for a laptop and other business-type stuff that can be swapped to either the pack or briefcase. The modularity of this system means it can do quick overnights or weeklong trips without ever being too much or too little bag. Walk into the airport with one big bag, separate the briefcase to keep under the seat, stash the big bag in the overhead. With lots of straps and lashing points, the Stand-By can do double duty as hiking pack or deal with hauling the gifts you buy for the loved ones at home. The downside? Green Guru ceased production, so the used market is the only source. Or maybe you need to bug Green Guru to do another production run. And, no, you can't have this one.

greengurugear.com

DEUTER TRANS ALPINE 30 \$129

As much as I love bikepacking style bags, there is something to be said about the simplicity of setting out for an adventure with some gear in a backpack and a bike unencumbered by extra weight. The Trans Alpine can handle overnight trips with a minimalist sleep system, or longer trips with some bike-mounted bags. A standard rain cover and tons of pockets keep supplies neat and dry. The highly adjustable harness system is comfortable and secure, helping to prevent those dreaded bag-to-helmet moments on descents. Plenty of room for a 3 liter bladder, lightweight materials, a helmet holder and even a removable foam pad that doubles as a camp seat, the Trans Alpine is specialized enough for bike use, but versatile enough for any outdoor activity.

deuter.com

NORTH STREET SCOUT 21 DUFFLE \$99

Yes, it looks like a gym bag you had in 10th grade. But that gym bag was actually really pretty awesome, or at least it seems that way after using this

bag for about a year. It is made in the USA with very sturdy materials, including a waterproof waterproof X-Pac™ sailcloth liner and 1000 denier Cordura nylon exterior. There are a number of colors for both straps and materials to choose from, and two smaller sizes. The smaller bags can set up as handlebar or rack bags as well. The liner isn't seam sealed, so some water can leak in after a long time, but it works well for short spells and helps to keep stink and dampness from seeping out of the bag after you've gotten your high-activity clothing sweaty. I was able to easily use this for overnight trips, or as a gear bag to fit shoes, helmet and clothes for an after-work ride. Simple, sturdy and effective.

DAKINE DRAFTER 14L \$135

A mid-size hydration pack should be in every rider's closet. The Drafter 14L is the perfect size for rides where you can't get away with a bottle and a few bit strapped to the bike, but not so big as to be mistaken for an expedition pack. A low-rider bladder keeps the water weight down low, and plenty of pockets keep everything at hand. The mesh back panel creates a huge amount of ventilation, making this noticeably cooler than other packs of this type, but also less stable when really getting after it. I was easily able to stow lunch, a mirrorless camera, raincoat, tools, tubes and kneepads with a little room left to spare. For those not into the partytime "Painted Palm" motif, there are more standard black or blue options.

dakine.com

northstbags.com



NITTANY MOUNTAIN WORKS HIP SACK \$48

Hip packs, fanny packs, or whatever you want to call them are making a comeback, and many bag makers out there are creating their own take on this classic piece of gear that people either love or love to hate. One of my favorites is the Hip Sack from Nittany Mountain Works, a brand new bag maker out of rural central Pennsylvania. The no-nonsense Hip Sack is made of durable Cordura nylon, includes a rear daisy chain for attaching your mug or a light and is perfectly sized for carrying your bike tools and essentials. It's a great option when you have more than you can fit on your bike but not enough to fill a whole backpack, or just want to get weight off your back. The Hip Sack is non-bikey enough to wear around town and easily converts to an over-shoulder sling pack if you're worried about looking cool. The best part? Colors are completely customizable when you order your Hip Sack online.

organicclimbing.com/collections/nittany-mountain-works

Four Gifts for the Bikepacker

BY HELENA KOTALA

PLATYPUS SOFTBOTTLE \$9

Bikepackers have to get creative to save space wherever they can. One of the biggest wastes of space is the air in a bottle after the water is gone. Enter the Platypus SoftBottle, a flexible, packable water bottle that collapses to make more room as it empties. It's also lighter than a hard water bottle and smaller for the same volume capacity while remaining durable and able to withstand the abuse of bouncing and rubbing in a frame bag. The SoftBottle is taste-free, even brand new, as well as BPA-, BPS- and phthalate-free. It comes in a 0.5 liter version for \$8 or the one liter at \$9. This simple and affordable gift is sure to see plenty of use from bikepackers and day cyclists alike.

platy.com

SAWYER MINI WATER FILTER \$25

A lightweight, compact and effective water filter can mean the difference between traveling light or carrying liters and liters – or getting giardia or not. At just two ounces and small enough to fit in the palm of your hand, the Sawyer Mini checks all the boxes while easily packable for overnights or all day rides. The Mini comes with a collapsible pouch that can be used to drink from or as a vessel to grab water from a stream and then filter it into a standard bike water bottle. The Mini also can screw onto a threaded cap (the size of one on a regular soda bottle or a soft bottle like the Platypus) or attach inline on a hydration pack hose. This versatile water filtration option is a useful tool for anyone who spends long days or days on end on the bike.

sawyer.com

SEA TO SUMMIT ULTRALIGHT INSULATED MAT \$130

The UltraLight Insulated Mat from Sea to Summit is ideal for three season use, and even into winter for some climates. It's laced with fabrics that reflect body heat and prevent cold from penetrating from the ground. The outside of the pad is made of lightweight, ripstop nylon. The UltraLight Insulated Mat weighs just 480 grams (regular size) and packs down to about the size of a one liter Nalgene. It comes with a stuff sack, self-adhesive patches for repairing punctures in the field and a spare one-way valve insert. It comes in four sizes – extra small, small, regular and large – so that you aren't carrying around more pad than you need. Sea to Summit also makes the regular UltraLight pad for those who live in warmer climates or who aren't planning on doing any cold-weather camping. Its balance between durability and packability make it a solid choice for any bikepacker.

seatosummitusa.com

Trail Crew Gifts

BY EVAN GROSS

STIHL KM 111 R KOMBIMOTOR \$350

The Stihl KombiSystem is a motorized head with multiple quick-release attachments to sweep, cut, blow or trim. Attachments vary in price and function but with thirteen options they cover the trail clearing end of the trail work spectrum in its entirety. Stihl divides the KombiMotors into two categories: Homeowner and Professional. The Professional series gives you everything you want to get the most out of your time off the bike – more power, increased fuel storage and a more durable package of very similar weight.

While most trimmers on the market allow you to swap out the gearbox attachment to install another, the beauty of the Kombi-System for trail work is threefold: the ease in which attachments are swapped, the compact size of the motor and attachment when disassembled, and the plethora of trimming implements available for the platform.

After five years of use, my personal KombiMotor is still the go-to trail clean-

ing mechanism. More recently, Stihl released the KM 111 R motor, and it's the one to get. It sits in the middle of the Professional series line, offering enough power and fuel storage to keep you trimming for roughly 50 minutes with the throttle wide open.

You won't find Stihl products at large home supply chains much as you won't find a Kona Process or Pivot Mach 5.5 at Dick's or Sports Authority. Our local supplier, Laneys Feed Mill, turned our mountain bike club onto these a number of years ago, and the first trimmer we purchased is still purring. So, if not for someone on your gift list, perhaps gift one to the local trail crew.

stihlusa.com

STIHL HL-KM 145° ADJUSTABLE HEDGE TRIMMER ATTACHMENT \$250

While Stihl makes plenty of KombiSystem attachments, if I could only have one it would be the 145 Degree Adjustable Hedge Trimmer. It's pretty apparent in

just looking at one of these the damage they can do on mountain laurel, saplings, green-brier, hawthorne,

poison ivy, etc. I specifically mention poison ivy because if you've ever used a string trimmer and found yourself a patch of poison ivy, you know all too well that those nasty red oozing blisters will appear everywhere. That's because the string trimmer splatters poison open and throws it everywhere. The hedge trimmer attachment simply lays the foliage flat, vastly reducing the potential for poison juices getting on your face or limbs. Poison aside, this attachment will cut through any hardwood roughly an inch around. While brushcutters and clearing saws are capable of cutting similarly sized flora, they lack the control needed to effectively trim out trails in rocky areas. Constantly pinging a clearing saw up against rocks will render the blade virtually useless after a short bit, while the shearing action of the Hedge Trimmer Attachment skates along the rock surface with minimal impact to the blade.

stihlusa.com

MSR 30 OUNCE FUEL BOTTLE \$22

They've already got a trimmer? It can't hurt to have a few extra fuel bottles to take on the next trimming session. MSR bottles are heavy-duty aluminum fuel containers that come with a plastic childproof cap. The stock caps seem to wear out over extended use as the safety mechanism tends to strip out. This is a slow process, but can be a royal PIA if out trimming and unable to remove the cap. The once-stock offering known as the Expedition Cap is available aftermarket. It's a simply threaded plastic cap with a rubber seal well worth the \$4.95 purchase price. The 30 ounce bottle sort of fits in metal bike cages should you be riding in, but is best paired with a cargo cage such as an Arundel Looney Bin or Blackburn Outpost Cage.

msrgear.com



Gifts That are Made in America Great, Again.

BY SCOTT WILLIAMS

KING CAGE BOTTLE CAGE STAINLESS STEEL \$18 OR TITANIUM \$60

Made in Durango, Colorado

If you currently don't have a King Cage on your bike, then I would go ahead and bet that you've never actually used one. It's oddly surprising how a cage that doesn't look much different than most on the market can be so much better. Your water bottle is probably a moderately important component for your ride, so the last thing you want to be doing is tossing bottles through chunky terrain or swerving off the road because you can't get your bottle back in the cage before the next pothole. King Cage bottle cages are simple and don't eject bottles; that's why this often overlooked bike component is number one on my list.

kingcage.com

WOLFTOOTH COMPONENTS CAMO SPIDER \$28 CAMO CHAINRING \$45

Made in Minneapolis, Minnesota

The Chainline And Material Optimization (CAMO) direct mounting system from Wolftooth is pretty rad. Constructed from 7075 aluminum with stainless steel bolts and available in a handful of direct mount crank options as well as various offsets to achieve your desired chain line, the CAMO system reduces waste when replacing chainrings and allows interchanging chainrings, even between different crank brands. That also means that if your local shop carries Wolftooth Components, you are more than likely going to find a replacement chainring in stock.

wolftoothcomponents.com

ESI GRIPS \$17-\$37

Made in Hesperia, California

Since riding a friend's bike that had ESI grips installed, I've run them exclusively on all my bikes. The grips are 100 percent silicone, and in my opinion, offer the best comfort and grip possible, even in the wet and even if you forget your gloves. They're available in nine styles and a whopping 11 colors and 30-34 mm widths. Installation is a breeze (I've found contact solution to work the best), and I have only experienced the grip throttling itself a couple times over the course of the four years I've been using them.

esigrips.com



BACKCOUNTRY RESEARCH TULBAG \$15

Made in Bozeman, Montana

I first read about this on the Team Dicky blog and figured \$15 is chump change to throw at a fully waterproof satchel for all my doodads and minitools. Years later, this 4 x 5 inch coin purse is probably my favorite piece of cycling gear I own. Made from high-strength waterproof fabric with a Griptech backing on one side and waterproof zipper, it packs way more contents than I feel I should be able to get in there, and thanks to the grippy backing and compact size, it's never flopped out of my jersey pocket, even on the wildest of OTBs.

backcountryresearch.com

THOMSON ELITE SEATPOST \$100

Made in Macon, Georgia

"The Thomson Elite seatpost is the standard by which all other seatposts are judged." That's a direct quote from Thomson's website and, quite frankly, I have nothing to add; it is the standard!

bikethomson.com

ENDLESS BIKES ANODIZED KICK ASS COGS \$50

Ashville, North Carolina

Singlespeed cogs; I've got two on my list, which probably seems odd, but they are equally deserving. For starters, Endless Bikes, they offer a wide range of 15T - 25T machined

7075-T6 aluminum cogs in 11 different anodized colors, which will naturally look similar to your favorite Industry Nine hub. They are also some of the widest cogs I've used at 6.35 mm at the base. However, I have found that the cogs fit snugly on certain hubs, which is not a bad thing. If you're looking for bling factor, this is what you want!

endlessbikes.com

WOLFTOOTH COMPONENTS STAINLESS STEEL SINGLE SPEED COG \$60

Made in Minneapolis, Minnesota

Wolftooth Components offers a much smaller range of cogs from 16T - 20T, machined from 416 stainless steel billet with heat treating and electropolishing for durability and corrosion resistance. It sounds like a bunch of hubbub, but I can speak highly to both durability and corrosion resistance. The width of the base is a little less than the Endless Bike cog at 4.5 mm, but I have not had any issues with it gnarling up my aluminum freehub body. If you're looking for durability without feeling like an anchor, check out these lightweight stainless cogs.

wolftoothcomponents.com

Six Things for the Analog Artist on the Move

BY STEPHEN HAYNES

MOLESKINE LARGE WATERCOLOR NOTEBOOK \$20

At 8 ½ x 5 ½ inches, the Moleskine Watercolor Notebook is big enough to capture just about any scene, both real or imagined, yet small enough to fit just about anywhere. Its 72, 200-gram, cold-pressed watercolor pages stand up well to abuse of all kinds, from pencil, pen, watercolor, gouache and casein, to collage and sticker collecting. Moleskine makes a smaller 5 ½ x 3 ½ that I find too small and two larger A4 (11 3/4 x 8 1/4) and A3 (11 3/4 x 16 1/2) size books, both of which are nice, but too big for my purposes. I'm

totally in favor of using cheaper materials and sketchbooks, as the cost of art supplies can get heady at times, but I can't recommend this book enough for its utility and classic styling.

moleskine.com

SAKURA KOI WATER BRUSH \$7.50

The Koi Water Brush from Sakura is a tool that I've come to greatly appreciate, especially when used in concert with water-soluble mediums like the Derwent Watercolor Pencils or Winsor & Newton Watercolor Markers I highlight below. The Koi can also be used to activate charcoal, pencil, non-binding ink (like that found in traditional ball points) and dried gouache lending your sketches a soft, painterly feel, which can

be left as is, or reworked as you like. One part synthetic brush tip, one part water tank, the Koi is easily filled via faucet, stream or just about any other water source and comes in three different size brush tips: small, medium (pictured) and large. Easy on the budget, easy to pack and carry, loads of fun to use.

sakuraofamerica.com

DERWENT WATERCOLOR PENCILS SET OF 12 \$20

The Derwent Watercolor Pencils are so cool it's hard to convey how fun and useful they are in such a short format. Used as traditional colored pencils, they perform as one might expect, but when activated with water, they become slippery and

nearly endlessly malleable. Create depth in your image by building layer upon layer of color, blending with water as you go along. They also work great in mixed media sketches, like the one shown here. Available in sets from 12 to 72 colors, or individually from various outlets.

derwentart.com

WINSOR & NEWTON WATERCOLOR MARKERS \$6 EACH

Much like the colored pencils above, the Winsor & Newton Watercolor Markers can be used like regular old markers, or they can be softened with water. The difference between the two is that the markers retain the original line a bit more and are also more pigmented; therefore, they come across as brighter and more vibrant. Despite being the only watercolor marker I own, it has proven to be a lot of fun to use and travels well (read, doesn't need to be sharpened).

winsornewton.com

PENTEL POCKET BRUSH \$20

The Pocket Brush uses black, waterproof ink, making it great for producing sketches and drawings of lasting quality or as an outliner over other media, like the watercolor marker and pencils mentioned previously. The Pentel Pocket Brush comes with two ink cartridges, one of which will last a good while, unless you're prone to filling in large sections of paper with solid black. Replacement cartridges can be purchased in sets of two for under \$5. This is without a doubt the best \$20 I've spent on art supplies in the last decade. If you're at all curious about the items in this roundup, start here.

pentel.com

PENTEL PRESTO! JUMBO CORRECTION PEN \$5

A staple of comic book artists everywhere, the Pentel Presto! Jumbo Correction Pen is great as both a quick-drying corrective tool and an easy solution for adding highlights. The Presto! Jumbo holds 12 mL of thinner-free, ozone-safe correction fluid dispensed through a fine-tipped roller ball, allowing for easy pinpoint applications that dry to the touch in a few seconds. The corrected area can then be readdressed with whatever medium you so choose, or not. While this isn't an absolute necessity in my kit, I almost always use it when I have it.

pentel.com 





A NEW HOPE:

HOMEGROWN CARBON
FROM THE UK

BY ZACH WHITE

PHOTOS BY RUPERT FOWLER & ZACH WHITE



204

MAXXIS

FOX
36

29x2.35

TRAIL BOLTER



o sit down with Hope Technology's Ian Weatherill and chat about the past, current and future ideas of the company was to really stand on one's toes and try to keep up as he figuratively and almost literally whirled around the company's 90,000-square-foot

factory in Barnoldswick, England. A tall, gregarious man with the odd ability to step in and out of any conversation without coming across as rude, Weatherill joyfully threw out tales of the first brakes he and his Hope co-founder, the late Simon Sharp, made for their personal use in between aerospace engineering projects in the '80s, ideas of building a "gym for cyclists"—style velodrome in Barnoldswick that could easily be reproduced anywhere in the world and the effort involved in fabricating the first two HB.211 prototypes in sizes medium for Sharp and extra-large for him, just in time for a trip to Whistler. "There's no commercial reason whatsoever," he said of the HB.211 project, which Weatherill states goes for the initial efforts of most of Hope's products currently in production. Like the company's first brakes in the '80s, the HB.211 was something he and Sharp simply wanted for themselves.

A quaint and picturesque town nestled inconspicuously in the rolling green hills of northern England, Barnoldswick seems an odd place — at least without a quick history lesson — to find such a large company with a taste for innovation. During World War II, the English secretly developed and manufactured jet engines for the Royal Air Force in this perfectly unassuming town. Successful at avoiding German detection, the facility eventually became the Aero Engine division for Rolls-Royce, as it still is today, and has essentially saturated the area with engineers, designers and all things aviation and aerospace. In turn, Hope never had to leave its valley to delve right into the latest in carbon fiber fabrication techniques, or even to find a manufacturer of said carbon fiber. As a nod to its trendsetting neighbors, Hope named their prototype HB.211 after the Rolls-Royce RB211 engine.

Currently, Hope Technology's 65 CNC machines run 24 hours a day, seven days a week, producing an impressive line of components. Hubs are the biggest seller with production at 80,000 a year, brakes following at 35,000 and complete wheels rounding out the top three at 25,000. Mix in cranks, pedals, bars, stems, cassettes, chainrings, lights and even seemingly minuscule parts like brass brake-line olives and inserts and alloy dust caps for jockey wheels, and you get an idea of what Hope needs so many CNC machines for (and why they're running continuously). Part of the 135-strong staff covers a night shift to keep up with ever-growing demand, yet Weatherill quickly pointed out that Hope has never once picked up the phone to solicit a sale.

Now Hope is adding bikes to its long list of products — more specifically, full-suspension carbon mountain bikes, which is an ambitious starting point. Weatherill says there was talk about making alloy frames, and there were even a few short-lived prototypes over the years, but ultimately both the prototype HB.211 and production HB.160 are what he and Sharp wanted to ride.

So, what exactly is the HB.160, and how does it reflect on a company with such fabrication abilities that happens to sit smack-dab in the middle of a technological anomaly of a town?

The 160 mm travel, 27.5-inch wheeled "trail/enduro" bike features a carbon front triangle and alloy rear end, both of which are made in the Hope facility. Even the aluminum molds for the carbon front end are made there, and the carbon is sourced just 30 miles down the road from Barnoldswick. Hope isn't trying to claim the Horst Link suspension platform to be anything new or groundbreaking, but Hope's adaptation and execution of the design into a complete bike is what will catch most people's attention. Most notably, it's Hope's ability to not only design and fabricate its ideas in house, but do so without the usual restrictions of industry standards. Sure, some will naysay a bike offered as a complete package that isn't entirely compatible with other components, but it'd be a hard argument against the HB.160 as simply



a showpiece of design and an example of what may come from the English company, if not adopted by other manufacturers as well.

One of the most Hope-centric pieces to the HB.160 is the rear hub and accompanying interface. Instead of Boost spacing that's designed around a 12 mm rear axle, Hope opted to tweak its rear-hub design and use

a 17 mm axle that's claimed to offer the same amount of stiffness in a much narrower, 130 mm width. The bonuses to this are essentially eliminating ankle and heel clearance issues sometimes found on Boost bikes, as well as improving lateral clearance in the rocks and roots out on the trail. The rear wheel is built with symmetrical-length spokes for a strong and even-tensioned build, and the drive side is still considered Boost spacing for compatibility with current drivetrains — although a Hope cassette is the only one currently compatible with a 17 mm axle.

This narrower rear end caused another custom tweak that ultimately makes more sense than what's often found in the industry: A radial brake and accompanying spacers allow the rear caliper to sit cleanly and linearly snug on the rear dropout, and disc-size compatibility requires only symmetrical spacers that are much more akin to thick washers than to the usual asymmetrical, frame-model-specific brake adapters we're used to. This obviously requires a compatible caliper, so chalk up another Hope-specific piece to the HB.160 puzzle. Currently a 160 mm disc is the smallest the HB.160 will accept, with the caliper mounting directly to the dropout without requiring "Lego Blocks" (what Hope calls its radial brake spacers) for 180 mm or 200 mm discs.

Both the upper and lower pieces of the rear end are 2000-series aluminum, and the chainstay is a clever two-piece design that attaches almost like an old ISIS bottom-bracket interface and is then bonded instead of welded. This process removes the distortion caused by welding heat

"HOPE TECHNOLOGY'S 65 CNC MACHINES RUN 24 HOURS A DAY, SEVEN DAYS A WEEK, PRODUCING AN IMPRESSIVE LINE OF COMPONENTS."

and therefore omits the need for cold setting them back into spec. Hope claims this chainstay version consistently lasted three times longer in its fatigue cycle test by comparison of 7000-series welded alloy versions.

Up front, Hope uses a press-fit bottom bracket with standard bearing sizing, but it's a two-piece version that screws together inside the frame's shell to keep it from creaking or loosening up entirely. Next to the bottom bracket is a proprietary chain guide that's attached to the frame via bonded alloy inserts. Hope stated that ISCG-05 was too close to where they wanted the bottom bracket, so Hope designed its own. Bonded alloy inserts are used for the pivot points in the front triangle, too.

The frames are offered in sizes small, medium, large and extra-large, and all feature internal cable routing, but unfortunately, water-bottle compatibility didn't fit the design. Hope uses an inflatable bladder system to lay up each frame in its impressive new carbon department, then they're heat treated and cured on site as well. None of the frames will be painted, as Hope didn't want to use any kind of filler or hide any of the carbon work. Instead, they'll be lacquered with an automotive-style finish, which also will be done at the Hope facility.

Production will be limited to a projected 10 bikes a week, or roughly 500 a year. The first batches will go to a dozen handpicked bike shops in the U.K., and then there will be waves of HB.160s sent to France and Germany this fall; finally, we'll see some of the Hope bikes in the U.S. in January 2018. Retail for a complete HB.160 will be around \$9,500, depending on the exchange rate.





"AS A COMPLETE BIKE, IT'S AN IMPRESSIVE DISPLAY OF WHAT HOPE HAS ALREADY CREATED AND OF THE NEW DIRECTION THE COMPANY SEEM ENTIRELY CAPABLE OF GOING."



THE RIDE

I was fortunate enough to ride both Weatherill's personal HB.211 on some slick and techy trails just outside of Barnoldswick as well as a production HB.160 at the official launch on dry, rocky trails in France several months later. Back to back, the design changes may be more tangible, but both bikes actually felt similar enough that my notes on each read about the same — and that's a very impressive thing.

The first ride was with Enduro World Series (EWS) Masters champ Woody Hole and fellow Hope employee Sam Sharp, who oversees the HB.211/160 development program and races EWS events himself. Traversing across a relatively mellow and pedally trail as a warm-up, the idea of riding such a rare bike quickly faded as I wiggled around on a saddle that didn't feel like it was in an ideal position. This seemed a telling sign of just how well-sorted and predictable the second HB.211 ever made rode, as out of all the new and potentially distracting things that were thrown at me from such a bike — including being a fair-weathered Colorado rider chasing two local blokes on slimy, slick trail — the only thing that demanded attention was a slightly off saddle position.

Descending on both versions of the Hope bike in two entirely different countries that couldn't have more contrasting conditions left the impression of them being so stable and predictable that it was almost underwhelming. While Hope threw all kinds of interesting if not innovative design into the HB.160, the company played it very safe with geometry, as the 65.5-degree head tube, roomy reach and 435 mm chainstays transferred from paper to trail quite nicely. The only slight issue was a personal prefer-

ence of slightly shorter chainstays, as both HB versions had a subtly muted feel when it came time to manual or throw them into tight, steep switchbacks.

Ankle and foot clearance on size 45.5 shoes was noticeably a nonissue with the 130 mm spacing, and slipping the HB bikes through narrow spaces between roots and rocks seemed slightly less likely to result in a smashed rotor or derailleur cage, too. Stiffness in the rear was right where it should be, without any noticeable flex or give in the narrow rear triangle and its 17 mm thru-axle.

Pedaling the HB.211 and 160 felt familiar in that well-sorted Horst Link kind of way. Extended climbs usually resulted in switching the shock to middle damping, or firmer for road sections. Spinning along nicely in the saddle didn't produce much noticeable feedback or bob, and jumping out of the saddle to power up and over rock ledges or logs didn't cause anything annoying either. Descending was almost always done with the shock in open position, though I did try a couple of smoother flow-trail descents in the middle setting, which didn't really seem like it was a benefit.

The HB.160's shock rate is somewhat progressive by design and had a tendency to ramp up just a touch more than desired on occasion. This is admittedly something that can be chalked up to a personal preference, but chances are you won't hear anyone rant and rave about how bottomless and plush the HB.160 is. That said, the Horst Link chassis generally lends itself nicely to different shock tunes, and some of the Hope racers are using coil shocks, which could be a great option.



OVERALL

While Hope's suspension platform on the HB.160 isn't anything groundbreaking, the package in which it's presented makes for an interesting and seemingly well-sorted design. As a complete bike, it's an impressive display of what Hope has already created and of the new direction the company seems entirely capable of going. For the very lucky few who get hold of one in North America, it'll be a bike that'll fit right in with current high-end mountain bike offerings and make for one hell of a conversation piece, if not a collector's item, to boot. For the rest of us — industry included — it'll be interesting to see what's next from Hope and if its innovative solutions to some rather mediocre "standards" catch on. **DIR**





**P L U S
T I R E S :
F I V E
Y E A R S
G O N E**

BY ERIC MCKEEGAN

In some ways, it seems that plus tires have always been with us. It was the summer of 2012 when Surly released the Krampus and the Instigator, the first production plus-tire bikes, which were well-received by an unsuspecting public. For a brand often thought of as retro, Surly has been the catalyst for a massive number of trends in the bike industry. The popularity of fat bikes, 29ers and plus bikes can be blamed, in large part, on Surly's efforts to bring affordable bikes in new niches to the market.

Surly really doesn't have to share the spotlight with anyone else when it comes to the creation of plus tires, but it wasn't until WTB introduced the 27.5x2.8 Trailblazer in 2014 that the idea took hold of the entire mountain bike market.

While originally designed to add some floatation to existing 29er frames, 27-plus has become a category all its own. A majority of brands are designing hardtails and at least one full-suspension platform that can switch between standard 29-inch wheels and 27-plus tires. Plus has spread to the road and gravel side of things as well, with big 650b tires slotting into frames designed for less-luminous 700c tires.

What about the future of plus tires? Rather than play prognosticator myself, I asked a number of industry folks to do it for me. Here's the inside scoop from a cross section of companies large and small.

OUR CAST OF CHARACTERS:

Rocky Mountain: Kenneth Perras, product manager

Surly: Adam Scholtes, product manager

Scott: Zack Vestal, bike marketing manager

Jones Bikes: Jeff Jones, founder and owner

Kona: Ian Schmitt, "product manager" or something like that

WTB: Clayton Wangbichler, public relations and content editor

Ibis: Scot Nicol, founder, and Colin Hughes, engineering manager

Santa Cruz: Don Palermini, marketing manager

Trek: Travis Ott, mountain bike brand manager

Specialized: Todd Cannatelli, MTB business manager

WHAT DO YOU CALL TIRES IN THE 2.8 TO 3.0 RANGE?

Surly: +, say "plus."

Rocky Mountain: Rocky Mountain Bicycles views these tires as plus-size tires.

Scott: We at Scott originally called tires in this range "27.5 plus," and for some brands, the category even included tires up to 3.25 [inches]. Note that the actual mounted width of the tires in this segment varies quite a bit, depending on the brand and the rim width. As a matter of fact, Scott's original 27.5 plus bikes featured rims that had an internal width of 40 millimeters and Schwalbe 2.8-inch tires. This combo resulted in a tire shape that mounted up and inflated to be about 69 millimeters wide.

However, as rider preference, athlete testing and bike design has evolved, Scott has adjusted our line accordingly. Riders and product managers have found a sweet spot of mounted tire width that ranges from about 62 to 65 millimeters. This size tire strikes a perfect balance of volume, contact patch, durability (without too much weight) and sidewall stiffness. That's the range in which a

Maxxis Rekon 27.5x2.8 or even a Maxxis Minion 27.5x2.5 WT falls. A 29x2.6-inch Rekon falls into this width as well. It's a bit smaller than the original 2.8-inch Schwalbe Nobby Nic.

For this reason, we're actually no longer calling any of our bikes "plus." All the bikes with 27.5-inch wheels will have tires that mount up to be about 62 to 65 millimeters wide. The Maxxis Rekon 27.5x2.8 is a typical choice.

Jones: We call it what we need to call it. I call a tire by its size, but really I call it what I need to call it for the person I'm talking to, to understand what I'm talking about.

Kona: These have traditionally been referred to as "plus" tires. I think at this time anything larger than 2.6 inches is still referred to as plus.

WTB: From the very beginning, when we introduced the first 27.5-plus tire at Sea Otter 2015, WTB has called them "plus tires." With fat-bike tires landing in the 4- to 5-inch range and traditional mountain bike tires having a widely accepted top-out width of about 2.5 [inches], the tires in between needed to be addressed as something slightly bigger than traditional tires. Something a little extra — a little "plus."

Ibis: We call them "plus."

Santa Cruz: Husky. Just kidding — we call them "big-boned."

Trek: Mid-fat or plus.

Specialized: We've referred to tires in this range as "6Fattie," since they were fatter versions of a typical 650b 2.1- to 2.3-inch tire. Generally speaking, tires in this range are referred to as "plus."

WHICH RIDERS ARE YOU TARGETING WITH PLUS TIRE OFFERINGS?

Surly: The pursuit of plus was focused on our interest in building a bike with the biggest tires possible with less of the design challenges around 4-inch-and-bigger tires. Plus let us build a bike using "normal" parts. Further, with Krampus, our leading product offering in the plus category, the goal was to build a hardtail 29er that maximized the big-wheel riding traits, characteristics and experience.

Rocky Mountain: Our target rider is both the newcomer and the experienced. Plus tires offer a more comfortable ride and increased traction due to the lower pressures required for the higher-volume casings and the larger footprint. We feel that all riders can benefit from these two advantages that come with larger tires. Of course, there will always be personal preferences on tire sizes, tread patterns and technical specifications, so we advise riders to try before they buy.

Scott: Our original plus offering — 69 millimeter mounted width — was certainly geared toward riders who wanted an extra dose of fun, confidence and capability. This larger tire size was widely adopted by all but the most hardcore trail and enduro riders.

But now, with the convergence of opinion and preference at retail, between product managers and amongst riders of all abilities, we're backing away from the original, higher-volume plus tires and building our bikes

to run 27.5-inch tires that mount up at 62 to 65 millimeters. This slightly lower volume allows for stiffer sidewalls and even more durable casings without too much added weight. And this tire size is likely to appeal to a much broader range of riders, including elite trail riders who might choose a 27.5x2.5 WT offering from Maxxis.

Jones: All riders who are looking for a more efficient, more comfortable and all-around better ride. Basically, for anyone who isn't a sprint racer, larger tires and wide rims are better.

Kona: Our plus tire offerings are aimed at folks who are seeking additional traction or flotation on their hardtail bikes. At this time we have not made any dual-suspension plus offerings.

WTB: We see first-time bike buyers choosing plus bikes for the increased confidence and stability they provide. At the same time, we're at the Downieville Classic every year and continue to see elite racers barreling some of the most brutally unforgiving trails in the world on plus tires because of the endless traction they deliver.

Ibis: Riders who ride in very dry, loose conditions where their primary concern is traction. Think desert or late-summer high-mountain riding. They also excel in sand, so if there are sandy portions of a ride, like we have here in Moab, they are a huge help.

Santa Cruz: I'm not so sure we're targeting riders so much as offering them options to tune their wheels and tires to the kind of terrain they may be riding. Every one of our plus-compatible bikes can also accommodate another wheel option, so with the Tallboy, Hightower and Chameleon, you can opt to run it either 29 or 27.5-plus. The market feedback we've been hearing is that many riders are "plus curious." They wanna try it, but aren't sure if they want to fully commit. Our either/or solution seems to resonate pretty well with them. By taking the extra step of putting in geometry adjustment to compensate for the slight circumferential difference between the sizes, we avoid compromising performance.

Trek: Trail riders. Those looking for a little more traction and confidence appreciate plus tires. It's opened up the whole trail-hardtail category, bringing in first-time mountain bike owners as well.

Specialized: There isn't really one specific rider these tires were looking to serve. We've seen plenty of advanced riders embrace our 6Fattie tires — refer to the recent John Tomac video that's been all over the internet! — for more traction and control beyond a traditional 2.3-inch tire. We've also seen a large number of novice riders embrace our 6Fattie tires for the increased stability and confidence the larger contact patch offers. The rider applications are pretty broad.

WILL THE "PLUS" NAME STICK AROUND LONG TERM OR WILL THE 2.8- AND 3.0-INCH TIRES BECOME JUST THE WIDEST IN A RANGE OF TRAIL TIRES — 3.0, 2.8, 2.6, 2.4, ETC.?

Surly: It's tough to say. Our industry is filled with companies with a lot of reach and pull in terms of their marketing investment. For Surly, we stopped calling fat bikes "fat bikes," instead labeling them "Omni Terra" in an attempt to describe what the bike does versus how it looks. I think "plus" has some merit here [as a naming convention], as the goal was to make a mountain bike with a little more in terms of capability or ride experience.

Rocky Mountain: We've committed to 2.8 tires as the standard size for plus platforms. From our discussions with our partners and other industry brands, this seems to be the trend at the moment. There is a proliferation of tire sizes on the market at the moment, but we've taken steps to avoid consumer confusion and buyer's doubt/remorse. Our newest platforms are designed to fit multiple tires, with attention to detail on the resulting geometry and ride quality. For example, our new Instinct and Pipeline, which share the same frame, can fit 29x2.3 to 2.6, and 27.5x2.8 tires.

Scott: As mentioned, we're already backing away from the true, original plus width and also the moniker. Three-inch tires will certainly stick around, but our opinion is that the 62- to 65-millimeter tires will be most popular and best suited to the widest range of typical riding styles.

Jones: You'll probably still hear "plus" just as you still hear "goose-neck," but for the majority of riders and the industry, they will just be another width option. Car tires are a good example: There are simply lots of sizes, and they're all just tires.

Kona: Probably, yeah. I think you'll see 2.6 inches become the de facto "largest normal tire" size and anything above that will likely be labeled "plus."

WTB: I believe the plus name will indeed stick around. Sure, traditional trail tires are getting wider, but there will always need to be a way to call out the difference between the ride characteristics of a 2.4 and 2.8 tire. Humans like to categorize. Maybe it makes us feel more organized in an increasingly more senseless world. The catchiness of the word "plus" alone will help it stay.

Ibis: We'll continue making our 27.5 bikes 2.8 compatible. Whether or not they're called plus doesn't matter too much to us. Three-inch and above will be used in niches like bikepacking with hardtails.

Santa Cruz: Probably. I mean it — along with fat, mid-fat, mid-plus, wide trail, porky, whopperific, mondo, et. al. — makes the nomenclature super confusing for consumers, so it's entirely likely that the bike industry would keep "plus" and add a few more micro-distinctions.

Trek: The reality is that the spectrum of tire widths is filling in, leaving fewer gaps and making the idea of defined categories of tire widths, such as plus, less needed. That said, labels sure are handy when you need to quickly convey an attribute such as a girthy 2.8-inch or 3.0-inch tire. I think labels will hang around for a bit longer.

Specialized: That's a trickier question. We're seeing a lot more interest in 2.8-inch and 2.6-inch-wide tires, including in our own products, so the lines are definitely starting to blur quite a bit. I think there will still be interest in 2.8 to 3.0 tires down the line in the coming years, but whether or not riders and companies continue to refer to them as plus or not remains to be seen.

WILL PLUS TIRES BECOME A COMPETITIVE OPTION FOR CROSS-COUNTRY OR GRAVITY EVENTS? SHOULD THERE, OR WILL THERE, BE A STYLE OF RACING BUILT AROUND PLUS TIRES' ADVANTAGES?

Surly: Surly has never really put ourselves out there as a racing brand. Other companies do that well. We tend to focus on a different type of rider and experience. I could see a transcontinental event requiring self-support and a huge range of terrain being a place where the right bike featuring plus tires would be a standout and have advantages.

Rocky Mountain: Realistically, the plus tire was developed for increased comfort on the bike at the expense of either weight, durability or both. Tire technology has improved immensely over the past few years, but not to the point where professional athletes are willing to compromise weight or durability for comfort. To be fair, these athletes are riding their bikes at a level far beyond the average rider, so their needs are very different than those of the mass market.

If you look at the Maxxis mountain bike tire website, the sheer number of tire sizes and tread patterns is evidence enough that you cannot simplify the market down to just a few options. Rather, I'm thankful that we have that many options so that every person out there can buy something that fits their individual need.

Scott: The plus designation seems unsuited for elite cross-country. And the original or true plus size is probably unsuited to the higher speeds of gravity events. It's doubtful that any competitive events would cater to the original plus size and I don't think anyone feels that our sport needs a new racing format specifically for 3.0-inch tires.

Jones: If the race doesn't depend on a tactical sprint at the end, 29x3-inch tires are faster, so there's already a competitive advantage. Gravel is a perfect example of a place where 29x3-inch and, to a slightly lesser degree, 27.5x3-inch tires have a huge competitive advantage, but it's only one of many. Change comes slowly.


Kona: Oh man. I don't really see that being relevant. You can't refute the relevance and performance of the 29-inch wheel. If you want to go fast, it's the wheel size of choice. Building a style of racing around the advantages of plus tires is an interesting thought. I would say the industry spends too many calories telling people what they should and shouldn't do with their bikes, and it seems like the whole concept of plus tires sits in juxtaposition to that categorization. Maybe I'm crazy and there will be a format specifically arranged around the plus wheel size. I mean, we do it in cyclocross already, so what's stopping us?

WTB: This is a tough one that would be pure speculation if I were to comment on [it]. We'll have to wait and see what direction it heads in the competitive world of mountain biking. However, the transition is already happening on the drop-bar side of cycling. Look at events like Grinduro, where our 650bx47 Road Plus tires can be spotted on countless bikes.

Ibis: Conditions will dictate what people choose to run. It should be whatever they think is the fastest setup for that particular race. Plus does seem to be shrinking back to just another option to satisfy particular conditions or riding style. Also — and this is a bit of a stereotype, but we'll go with it — the guys riding plus bikes aren't the guys going for every Strava KOM. So it's doubtful a new racing series will come out of it. More like the trend we're seeing now for bikepacking and other non-competitive rides.

Santa Cruz: God, I hope not. Between age groups and singlespeeds and genders, I think there are enough categories to go around. I think there's a point at which it's incumbent on the rider to pick their weapon for the race, living or dying by it without handicaps.

Trek: Given the right course, plus tires could be an advantage. As a racer, keep an open mind, and if presented with a uniquely rough or loose course, consider it.

Specialized: I think true plus tires in competitive cross-country racing may be quite a way out, if at all. The increase in traction and control doesn't yet offset the increase in weight for most World Cup XC racers. Same goes for gravity events, including enduro racing. What I think we will see is the influence plus tires will have on those categories, which is something we're already starting to see creep up. [Wider] tires are showing up in enduro racing, and I think we'll see a lot more 2.6-inch tires on the World Cup DH circuit as well. The challenge is building a tire with a stiff enough sidewall to support the extra volume, [that] is durable and resilient to sidewall cuts and pinch flats and also doesn't weigh too much. That's a pretty difficult balance to achieve for most World Cup-level DH and enduro racers. 

Want more? We got more answers than we could use, so check our website for more Q&A about plus tires on dirtragemag.com.



RIDING WITH VIKINGS

WORDS & PHOTOS BY LESLIE KEHMEIER



It's 10:30 p.m. on Day 5. It's just getting dark and our group is (kind of) lost on Reinesfjellet, the biggest sea of granite I have ever ridden through. In front of us, the sun is finally about to set behind the mountains far in the distance, silhouetted by a color explosion of purple, orange and blue. Behind us, the moon is rising above sheer granite cliffs, the highest in this part of Norway. We're not supposed to be out here this late, but for a number of reasons, we are. Weaving through large pools of still water, we soldier on, the shapes of the mountains and the patterns of the sky reflected below us. In my experience, these particular moments, be-

ing off schedule and off course, usually lead to one of two outcomes: We are either going to suffer and fall apart or we will embrace the present and have an amazing experience. Since we were facing 1,000 feet more of climbing and pushing before a steep, slabby and most likely slippery descent, it could go either way. Thankfully, after the experience of the last four days of lack of light, gnawing hunger and jet-lagged fatigue, my gut knows we will transcend to finish an unforgettable ride in one of the most stunning landscapes any of us has ever seen.

A few days earlier, I'd stepped off my Scandinavian Airlines flight from Oslo with bike bag

and duffle in tow to start a new adventure. I had few expectations for what the mountain biking in northern Norway might be like. I would be visiting for 10 days, riding trails from south of Narvik, deep into the Lofoten Islands. This part of the world had not been anywhere on my radar until a friend asked me to join one of his exploratory guided tours earlier in the year. After committing to the trip, I booked a ticket to Harstad/Narvik Airport and then did my usual travel research. I found plenty of amazing photos for the region, showing a setting that looked like something very close to an outdoor paradise. With my interest piqued for how that might translate to the



riding, I dug deeper to find a surprisingly small amount of information regarding mountain biking. I saw this as a blessing, not a curse, and was happy that I added a few extra days to explore the trails on my own.

Nordland is a part of Norway that extends 300 miles northeast along the coast of the Scandinavian Peninsula. It is flanked by Sweden to the east and the Norwegian Sea to the west. Although bisected by the Arctic Circle at 65 degrees 82 minutes north latitude, much of the region has a unique climate, a result of the Gulf Stream and its extensions, the North Atlantic Current and the Norwegian Current. This means warm waters are funneled up from the North

Atlantic Ocean into the Norwegian Sea, keeping the ice at bay and temperatures milder than other locations across the globe at similar latitudes. Known worldwide for this positive temperature anomaly, the Nordland attracts a number of tourists like myself every year, contributing over \$20 billion to Norway's economy.

Doing my part to add to the bottom line, I looked forward to exploring trails throughout the region. Since much of the time spent on the guided trip with Big Mountain Bike Adventures would focus on Lofoten, I focused my extra time on Narvik and its surroundings. Without much knowledge regarding the riding scene, I hit the ground with a few basic questions that would

need to be answered quickly to get me ready for action: What was the dirt like? Where are the trails that showcase the landscape? What do the locals ride? Honestly, it was a bit of a mystery.

But mystery makes for memorable trips, especially if you travel with the right people. Fortunately for me, a good friend and accomplished athlete, Jaime Hill, would be joining me for the duration. As I've come to find out on previous adventures with Hill, she is always up for anything, anywhere, anytime. Like me, she was eager to travel to northern Norway. For her, the trip would be a nice respite from her nonstop racing and coaching schedule.

NARVIK

On Day 1 we assemble our bikes and then address our plan (or lack thereof) for the next few days. We would sample the trails, rideable from town, and then try to connect with some locals. As luck would have it, Wild North Adventures had posted a flyer in the entryway of our guesthouse with two eye-catching photos. It looked great to us and we immediately sent off an email. An hour later I was making arrangements to spend the next two days riding around Narvik with local guide Daniel Larsson.

Narvik is one of the three largest towns in the Nordland, and its administrative center. Surrounded by monolithic mountains to the east and shielded by the waters of Ofotfjord on the west, Narvik, like most of the region, is strikingly beautiful. At the lower elevations, thick green and white forests of silver birch blanket the lower flanks of the steeply rising peaks. Above tree line, sheer walls of granite are capped with snow and blue-tinted glaciers. Although the main industry for the area is iron ore, Narvik is also a natural outdoor playground. Already known for its wealth of skiing and climbing, the same landscape lends itself very well to mountain biking, Hill and I discovered.

On Day 2, as planned, Larsson appears on the deck of the guesthouse with maps in hand and we get to the business of planning our time with him. Together we decide on a strategy that will allow us to experience the not-so-well-known places in the area. With a loose plan in hand, we load our bikes and gear into Larsson's faded blue Volkswagen van and head south toward Skarbergflåget and Henriksnesfjellet.

For Larsson, the Nordland is home. A native of Sweden, the natural-athlete-turned-guide moved to a small cabin at the end of a fjord about a year ago. On the drive south, we quickly observe that Larsson is the strong and silent type, with a huge smile and an assortment of bicycle-themed tattoos. Despite his being a man of few words, Hill and I easily understand his passion for mountain biking.

As the first ride gets underway, we discover that Larsson isn't an average mountain biker. Like Hill, he's got skills beyond most people. During the second ride of the day, at the remarkably beautiful Henriksnesfjellet, Larsson announces, "I'm going over there." I'm in the process of lining up a shot of moody clouds draped over a sheer and steep wall of granite when he rides up onto a boulder and into my viewfinder. As I'm admiring the composition of the fluorescent green lichen contrasted against dark gray rocks, Larsson declares, "I'm going to do this." Not finding the right

English words for "nose wheelie," he proceeds to maneuver up onto his front wheel and manual down the edge of the boulder with delicate precision. Not exactly ready for this particular moment, I instinctively press the shutter button, capturing a few frames of the move. I pop my head up and smile at Hill, who's looking back at me with excited amazement.

"Can you do it again?" I ask Larsson. He nods, pedals back up and does the move with perfect form until I'm satisfied with the shot. He and Hill ride off to another area, and I linger for a few seconds to soak up the moment. In a world where mountain biking, in many places, is devel-

opment of solid granite slickrock at Henriksnesfjellet, an afternoon following a 120-year-old historic railroad supply route that starts in Sweden is equally scenic and special. What's more is the ride ending with a rigid inflatable boat shuttle across the upper end of Rombakfjord.

For the icing on the cake, we finish Day 3 on trails around Ankenes, an area that is being developed with more trails. The ride, a local favorite, takes us through twisted forests of birch on some fantastically loamy dirt. The views are incredible and it is a nice departure from the solid rock we have become accustomed to. The soil is just



oping with a lot of intention, it's refreshing to find places that are natural, untainted playgrounds.

We run out of light and call it a day. Hill succumbs to jet lag and naps in the car on the drive back to Narvik as I watch the last bit of colors from the sunset spread out into a fan across the fjord waters.

The second day with Larsson is an entirely new set of adventures, and we make the most of our time with him. Although it would be hard to beat descending the giant 1,150-foot continuous

grippy enough, the right mix of fluffy dark earth and tiny grains of rock. It makes for some playful moments with sufficient drift before the tires dig in.

With some seriously great experiences in the books and most of our "What will the riding be like?" questions answered, Hill and I find ourselves extremely grateful for the extra time spent in Narvik. We rinse out the chamois and the shorts in preparation for the Lofoten segment of the trip.



"THE RIGHT MIX OF FLUFFY DARK EARTH AND TINY GRAINS OF ROCK MAKE FOR SOME PLAYFUL MOMENTS WITH SUFFICIENT DRIFT BEFORE THE TIRES DIG IN."







LOFOTEN

"It's not smelling anymore because it's so dry," explains local mountain biker Sture Pettersen as the wrinkled, sunken-in head of a drying cod swings and jiggles back and forth from a string on the rearview mirror of his 1990s-era Volkswagen truck.

Pettersen, an area local and friend of our Big Mountain guide, has joined our group spontaneously for Day 8 of the trip. We're driving west on the E10 from the town of Svolvær, toward Vestvågøy, the island that sits firmly in the heart of Lofoten.

"It's actually a ... what do you call this smelly thing, you know? To get the good smell in the cars," he asks in English with a thick Norwegian accent.

"An air freshener?" I say.

He nods in agreement and proclaims, "This is also an air fresher. Lofoten style."

Although the fish head is obviously part

and parcel of Pettersen's eclectic style of vehicle decoration, it's not an uncommon thing to see in this area. Arctic cod, also known as stockfish, is very integral to life in Lofoten. Every winter from mid-February to April, millions of fish migrate from the Barents Sea to the islands to spawn. The fishery is Norway's biggest and oldest, dating back to sometime around 1100. Although stockfish is no longer the country's biggest export, it once supported an industry of 30,000 fishermen and became a key link between Norway and the rest of the world. It still provides a strong economic base in the region and is a key attraction for tourists. Our previous night's stay in Svolvær was arranged in a traditional fishing hut called a rorbuer. These simple red-and-white cottages, situated over the water and supported by stilts, were once inhabited by fishermen during the stockfish season. Now the authentic buildings make a perfect base for our mountain bike adventures.

Hill and I have been riding with the Big Mountain group for a few days. After pulling an all-nighter on Reinesfjellet, we have been progressively working our way across Lofoten. The riding is similar to Narvik, with a mix of forest trails and slickrock fun. However, landscape and scenery have changed quite dramatically, and we start to realize why so many travelers make a beeline for the area.

Although we're visiting in between seasons, signs of stockfish are everywhere.

Near the clusters of rorbuer lay what looks to be extensive scaffolding, built from thick, round timbers. In actuality, these

are drying racks for fish. While some racks are only 6 feet off the ground, others are constructed in a pyramid, rising upward of 30 feet. During the season, these racks are key to preserving the fish. The process has been in place for nearly a thousand years and does not require salting or smoking. The unique climate in Lofoten is the key ingredient in this scenario. Since winter temperatures rarely dip much below freezing, the fish simply dry in the wind and sun without rotting or breaking into pieces. While the main body of the fish is packaged and transported to fine restaurants in other countries, such as Italy, the heads, like the one hanging inside Pettersen's truck, are exported to various countries on the African continent to be ground into powder and used as a protein source in soups.

Pettersen proves to possess a wealth of knowledge about both the history of the cod industry and the best places to ride a mountain bike. He's also a link between Narvik and Lofoten. After living in Narvik for 20 years, he's recently returned to his birthplace of Svolvær, a major hub in Lofoten. At age 55, with a tall and wiry frame, Pettersen would give you the impression that he's been riding for much of his life. Surprisingly, he's been at it for only a decade. Somehow in those 10 years, he's racked up enough rides to be one of the most knowledgeable people in the area. As we talk, there's no doubt that his experience is directly linked to his passion for riding.

"It's very difficult for people who don't mountain bike, to explain to them how fun it is to go riding," shares Pettersen. "If I can't go riding for some days, I get crazy; I have to go ride. It's so much fun. It doesn't have to be technical or anything like that. It's just fun to go biking."



When Pettersen lived in Narvik, he took a year and a half off from his job as a graphic designer to ride every day. He documented his favorite experiences and created a website called singletracknarvik.com. I discovered his site while researching the trip — one of the few resources for mountain biking routes in this part of Norway. The website definitely gave me a sense of the rugged topography found throughout the Nordland.

“Lofoten is very special,” shares Pettersen. “I lived in Narvik for 20 years; it’s situated on a very long and beautiful fjord. But Lofoten ... it’s such a big difference with the mountains that go straight up from the ocean. It’s more open and you have the sea.”

Lofoten is an archipelago that stretches 70 miles from east to west into the Norwegian Sea. The area has a dramatic landscape of steep mountains — some of the oldest granite in the world — surrounded by the shimmering turquoise waters of deep fjords and sheltered bays with miles of shoreline, some of which

has remained untouched. Our Big Mountain guide, Andreas Tonelli, who has been guiding in Lofoten for seven years, describes the area as “paradise.”

Pettersen flicks his turn signal and we bank left into the Lofoten tourist center. Here, the rest of the group is gearing up for the longest ride of the tour, a route with two summits. It turns out to be one of my favorite rides of the trip. The experience is very much how Pettersen and Tonelli have described Lofoten, with steep topography in a wild setting. They’ve even, perhaps, understated the remarkable beauty.

Distracted by the scenery, I almost run into Pettersen about halfway up our first hike-a-bike of the day. I see that he is stopping abruptly to squat down to pick blueberries on the steep hillside. With one hand holding the bike, the other hand is rummaging through the green thicket, picking berries and shoving them in his mouth as fast as possible.

Pettersen, who is not shy about us-


ing expletives, exclaims, “F--k. Can you believe how big these blueberries are?!” as he closes his eyes and pops another handful in his mouth.

As I wait for Pettersen to get back on his bike, I cannot stop looking at the ocean and mountains in the distance. A few minutes later, we are riding again, crossing the top of a long, flat ridge with views that go on forever. It is so cliché, but words are hard to find to describe the scene. Tonelli’s description of “paradise” seems to be the most fitting. Shangri-la might work too. Whatever way you describe Lofoten, it is undeniably unique.

After finishing what Hill and I refer to as the “two summits” ride, we cherish the fact that we still have more trail ahead of us. Although the routes seem to be quite steep and rugged, we agree that they offer an experience that’s not easily replicable. Our point is proven the following day while hiking the bikes up to the summit of Justadtinden, at 2,421 feet. At the top, we find ourselves in yet another 360-degree view and swear we can see all the way east, back to the area where we had our first ride with Larsson. He had pointed out the mountains of Lofoten to us that day, explaining how big and sharp the peaks would be.

On Day 10, Hill and I, along with the rest of the group, thoroughly enjoy the last few hours

of riding, at Smørdalskammen. It’s more of the same: narrow and natural singletrack through the jaw-dropping scenery. We certainly don’t take it for granted, since we happen to finish just before a deluge of rain hits Lofoten. As we drive back to the small village in Nusfjord to pack and spend our last night in the traditional rorbuer, I reflect on another trip to a far-flung region of the world.

I’m always recharged by trips such as this one, having the opportunity to visit places that are raw, natural and beautifully unrefined. And I’m glad I didn’t know what I was getting into. It made the experience all the better. 



WORDS AND PHOTOS BY BRIAN FOX

Mapping is important these days. Maps are critical to helping people discover the closest coffee shop, navigate to a new place or, in our case, discover and experience new trails. Maps, to me, mean anything from the latest app on your phone (like MTB Project) to that folded cartographic product you carry in your pack. Both do the same thing: help you explore trails on public lands. Maps may be one of the most important accessories for a mountain biker, as they answer the question, “Where should I go ride?”

To that end, there are some great maps to help you find and explore trails. One of my favorite ways to discover mountain bike trails is with MTB Project. The website makes it easy to find trails and identify their level of difficulty, helping you plan your next mountain biking adventure. Their mobile app puts that planning capability in the palm of your hand, with the benefit of monitoring your progress along the way. But the age-old paper map is a great way too. In fact, it doesn't rely on batteries, it can be waterproof and it can help us develop important map-reading skills.

To use a paper map, you'll need the skills to do it. Map-reading skills can be learned through courses provided at a local outdoor co-op, the National Geographic Society and online. Map-reading skills are important to develop and maintain, and not just so you don't get lost. There's actually a portion of our brain that is devoted to spatial awareness, and studies have shown that with the increasing use of GPS-based navigation tools, this part of our brain is getting smaller. So while you're on your bike developing cardiovascular strength, you can use a paper map and develop your brain as well.

As long as we're talking about maps and map reading, we should review some map products that are available for a popular mountain bike destination. I happen to live in Denver, and a local recreational hotspot is Buffalo Creek. In looking for some maps of Buffalo Creek, I found some great products from four different producers: the U.S. Geological Survey (USGS), National Geographic, Singletrack Maps and Jefferson County.

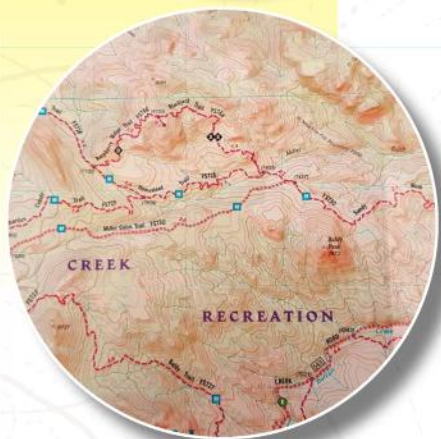


USGS U.S. TOPO

The USGS produces the U.S. Topo map, a 1:24,000-scale map product that is available for all of the contiguous U.S. and Alaska. These maps can be downloaded for free via The National Map and either printed or used on a mobile device that reads a GeoPDF file format (Avenza's PDF Maps or Terrago Edge, for example). The USGS is making these modern U.S. Topo maps with a lot of help from automation, remapping the country every three years with a handful of staff to ensure that the public has access to the latest map content. Considering that the initial U.S. Topographic map program took four decades and thousands of cartographers to complete, the modern version at USGS is a technical marvel.

The USGS's U.S. Topo maps are currently based on a fixed 7.5-minute grid that covers the entire U.S. This allows the USGS to focus on consistent, national production of a large-scale (read: large detail) map with coverage throughout the U.S. While this may require users to have multiple U.S. Topo maps to have complete coverage over a particular recreation area, the USGS maps are available for some remote places that may not be covered by private map producers. The U.S. Topo maps are also general-purpose topographic maps, so they don't provide details like trail difficulty, which may be important to specific user groups.

The U.S. Topos are a constantly evolving product, featuring a growing number of geospatial features. The underlying elevation



contours and water features on U.S. Topo are managed by the USGS through the 3D Elevation Program (3DEP) and hydrography programs, respectively. 3DEP and the National Hydrography Dataset (NHD) not only help make some beautiful maps, but also help drive geospatial analysis critical for understanding the impacts of climate change, water quality and other scientific studies. The trail data on them is provided by a number of sources, including MTB Project, thanks to an innovative agreement between IMBA, REI and the USGS. Federal agencies like the USDA Forest Service, the National Park Service and the U.S. Fish and Wildlife Service are also providing trail data to USGS that is published on the U.S. Topo maps.

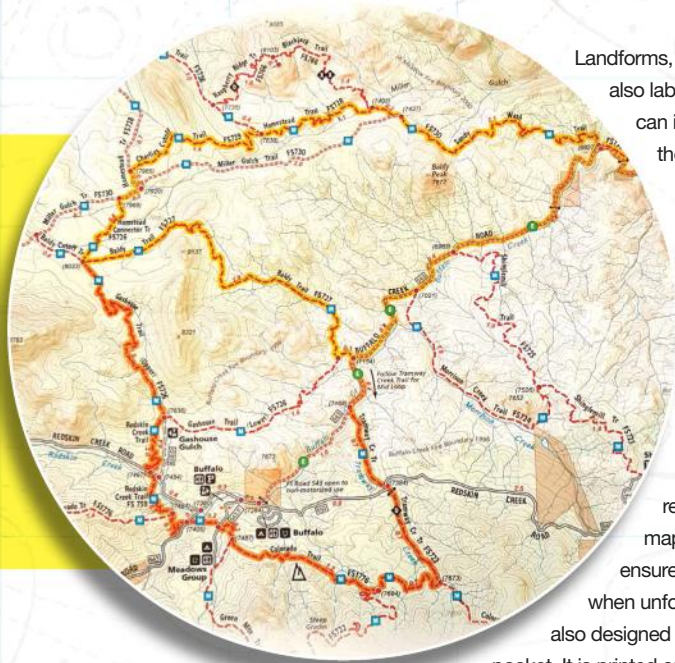
While USGS provides free maps and map data for the U.S., there are a number of other organizations out there making some beautiful maps to help you find your next adventure.





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JEFFCO OUTDOORS FOUNDATION REGION 7 MAP

Many state and local governments create maps of their parks to help expose the recreational opportunities available to the public, and the Jefferson County Regional Series maps are a great example. While the Region 7 map over Buffalo Creek is the smallest-scale product in this “review,” showing the least amount of detail over the area, it does a good job of highlighting the trails along with their relative difficulty. It includes elevation contours without any hill shading, with the colors on the map used to highlight land-management boundaries. Trailheads, bathrooms and camping are also featured on the map. Overall, the map does its job well, highlighting recreational opportunities to the public, and I think this particular example demonstrates the importance of looking at state and local information sources as you plan your next ride.

NATIONAL GEOGRAPHIC (NATGEO) BUFFALO CREEK MOUNTAIN BIKE TRAILS

The NatGeo map of Buffalo Creek, like all NatGeo products, is beautiful. Overall, the map is easy (and fast) to read. Upon first glance, the trails, trailheads, camping sites and other recreational features pop, while the elevation and water features are subdued. Although the elevation contours are muted, the contours are regularly marked, ensuring easy referencing of height. The trails are well labeled, with names and relative difficulty clearly marked as well.

Landforms, elevations and names are also labeled, ensuring the user can identify the mountains they are riding by.

According to Eric Janota, product manager at National Geographic, this map is designed specifically for mountain bikers.

While NatGeo creates a variety of maps to support tourism and recreation, this particular map is handlebar width to ensure it is not too unwieldy when unfolded on the bike, but also designed to fold and fit in a jersey pocket. It is printed on waterproof paper, and the map's format is one of the smallest of the group, making it easy to handle while out on the bike. That said, its 1:30,000 scale provides plenty of detail.

Janota highlighted that while the USGS's elevation, hydro and geographic name data were critical to making this map, they collected their own trail data over the recreational area. They worked with the Colorado Mountain Bike Association (COMBA) to help determine the best routes and experiences throughout the recreational area. In fact, while the front side of the map focuses on the physical features, the flip side highlights the potential experiences you might consider. Four inset maps are shown, with six possible experiences laid out, each with its own elevation profile, distance and other important stats, highlighting the potential effort involved and helping you choose the right ride.

SINGLETRACK MAPS BUFFALO CREEK TRAIL MAP

Singletrack Maps is a map producer from Salida, Colorado. They have a variety of maps covering popular recreational areas throughout the state, many of which are ignored by larger map producers. Their Buffalo Creek Trail Map is colorful and easy to read. It is smaller scale and a larger format than many of the others, providing users with trail information outside of the immediate Buffalo Creek recreational area. The map includes well-marked trails, with both the difficulty and names indicated. The brightly

labeled trailheads quickly orient the user to potential starting points for a ride. While the map is smaller scale than many of the others, it features a lot of details while not being too noisy or cluttered.

Besides the map, there is an inset with recommended rides, highlighting various experiences riders can consider depending on their endurance and time available. It provides elevation profiles for each of these route options. With this information on the same side as the map, the need for the user to flip the map back and forth to reference this valuable data is minimized.

Singletrack Maps collected its own trail data and organized the trail experiences illustrated on the map, with the underlying elevation, hydrography and landform data coming from the USGS. Farid Tabaian, owner of and cartographer for Singletrack Maps, believes that “field checking the trails ... help[ed] me add detail to the map, like gates, bridges, trail difficulty, etc.” Clearly, making a map is an art form. “Being a trained cartographer, there are levels of detail and diligence that cartographers go through to create a beautiful end product,” he says. “There is a great power [in] being able to manipulate and edit even the background data to create a level of visual hierarchy that most map read[er]s will not notice, but it makes the map easy to read and gives the most important information to the reader.”

MAPS HELP YOU OPT OUTSIDE

It is important to carry a map, especially on new trails, longer rides and backcountry experiences. That map can include your mobile device, but for the longer rides, a paper map is great because it's waterproof and doesn't rely on batteries. The USGS has maps that cover the entire U.S., while map producers like NatGeo make beautiful maps for nationally popular recreation areas. Meanwhile, individual recreational hotspots are being mapped by cartographers in local government offices and smaller mapping companies. No matter the source, paper maps are great for helping you navigate your next mountain bike adventure, and a framed map also makes a great souvenir. Maps help you opt outside and not get lost in the process!



Photo credit: Angie Harker, Selective Vision

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#morekidsonbikes

www.nationalmtb.org @nationalmtb



MARIN WOLF RIDGE 8

TESTER: Eric McKeegan AGE: 46 HEIGHT: 5'11" WEIGHT: 165 lbs. INSEAM: 32"

Reach:	18.2"
Stack:	25"
Top Tube:	24.4"
Head Tube:	66.5°
BB Height:	13.2"
Chainstays:	17.1"
Weight:	31.1 lbs.
<i>w/o pedals specs based on size tested</i>	

Not since the launch of Kona's Magic Link bikes (R.I.P) has there been a bike that creates such a sudden, visceral and polarized response. The Wolf Ridge is an ungainly looking conundrum of a bike, drawing questions of motorization and general confusion about whether this is a modern bike or something out of an almost-forgotten, elevated-swing arm past.

The bottom bracket area is the source of the majority of the confusion, housing a very low and very forward main pivot and the sliding stanchion at the heart of this new suspension system. Combined with a set of links, the R3ACT 2PLAY suspension system might look like an odd single pivot at first, but the axle path doesn't follow a single-pivot's basic arc.

Marin claims this bike pedals well enough that it defies standard categorization, separating suspension travel from category. Just how it pedals so well isn't entirely clear, and both Marin and the suspension designer (Darrell Voss of Naild.it) aren't forthcoming on what the secret sauce is behind the kinematics that point towards a new way of creating efficient bikes without relying on compression damping.

After few months on the bike, I had a multi-hour chat with Voss, dancing around the subject of how this bike works, with Voss never quite spilling the beans, although I started to develop a few theories of my own. What

is very clear is Voss's goal of getting more people riding by making bikes that perform at the highest levels but don't need expert-level suspension tuning skill to extract that performance. I was offered a peek behind the curtain if I signed a non-disclosure agreement, but I wanted to keep the review as honest as possible, so I declined until my time with this bike is finished.

The Bike

The last time I rode a high-end mountain bike without a lockout or platform lever of any kind was an Ellsworth from almost a decade ago. A few staffers rode that bike, and every single one, myself included, thought the bike needed one, terribly. The same cannot be said about the Wolf Ridge. The rest of the parts kit is what could be expected for a \$5,000 bike, but the basic rebound-only RockShox Monarch is a sign of confidence in the design.

The rest of the bits on this carbon frame are well thought out. SRAM handles the GX Eagle 12-speed drivetrain; Shimano XT brakes do the stopping on 200/180 front/rear rotors, and WTB tires wrap up the latest NoTubes Flow rims.

The geometry is aggressive, but not fully in the long, low, slack category. The reach on a size large is "only" 462 mm; head angle is 66.5 and the bottom bracket is a low 13.2 inches. A slacker 73.5 virtual seat tube and a 15 mm

offset dropper post keeps the cockpit roomy enough. A rear fender is included to protect that big, weird swingarm stanchion. (I have to say, I oddly enjoyed the cognitive dissonance that hit me as I was typing "swingarm stanchion"). Cable routing is internal, quiet and reconfigurable for brake or dropper preferences.

The Ride

Bike companies and media have long been claiming cross-country climbing performance from longer-travel bikes, even when it wasn't remotely true. Enough times for a lot of consumers to think most of this type of talk is fake news, and I apologize for our part in that. But, put that aside. While I would dispute some of the claims that this bike could be raced competitively in a cross-country event, it does pedal better than anything of similar travel numbers.

But it isn't just how well it resists bob, it is also how well the suspension still works, even when on the gas, standing to pedal or pedaling in tired, mashy squares at the end of a long day. The anti-squat numbers should explain some of that, but even bikes with similar numbers can't come close to this performance without substantial low-speed compression assistance from the shock, which hampers small bump compliance.

This leads to an odd-feeling suspension



PRICE: \$5,200 SIZES: S, M, L (tested), XL ONLINE: marinbikes.com

when pedaling over difficult terrain, something I can best describe as hyperactive, yet controlled. Some of this is the result of running a faster-than-normal rebound speed, but on other bikes that just results in a bike that can start bouncing uncontrollably, something that isn't the case for the Wolf Ridge.

I managed to ride this bike in a number of areas, from the steep trails of Santa Cruz to chunky and wet terrain in central Pennsylvania and West Virginia, to local trails and even a few commutes into work. Other than steep paved climbs, there was never a time I wanted a lockout. Since the bike pedaled so well, I rode it on a lot of rides that I otherwise would have picked a bike with less travel, although at 31 pounds it can feel like a lot of bike, a lot of the time. That 31 pounds doesn't include particularly sturdy tires, so if you really want to take advantage of the capabilities of this bike, expect to add some weight for tires with a sturdier casing.

The handling is just flat-out neutral for a big bike. This isn't a terrain-smashing 29er monster like the Transition Sentinel or Evil Wreckoning, but more along the lines of an incredibly capable trail bike like the Kona Process 153 29 or Specialized Stumpjumper 29.

There are a few minor issues to address. Front-end frame stiffness is spot on, but in some situations, the rear of the bike exhibited more flex than I expected. It wasn't anything

THE HANDLING IS JUST FLAT-OUT NEUTRAL FOR A BIG BIKE. THIS ISN'T A TERRAIN-SMASHING 29ER MONSTER.

that would ruin the ride, and it was hard to really nail down if it was the swing arm or the very tall profile of the rear WTB Trailboss. Bottle mounts are non-existent. The extended frame in front on the bottom bracket could take a beating when smashing through rocky terrain. The plastic bash-protector is replaceable, and I would expect to do that at least once a season.

Marin claims a lot of things in its marketing materials for this bike, including (to paraphrase) that the Wolf Ridge is a paradigm switch where travel no longer defines bike category. This is a bit of a strawman argu-

ment, as no one seemed to solely use travel to define category, and with modern geometry, even short travel bikes can be ridden on terrain that would have been silly to attempt a few years ago.

The idea that someone smart like Voss did all the complex thinking for me on the back end to make my ride experience less complicated has some appeal. If this bike was released five years ago, it would have blown minds, but going head-to-head with similar modern bikes it is fighting for position at the front of the pack. This is no small feat for a smaller company like Marin, and the Wolf Ridge is a pretty special bike for the right rider.

With modern shocks becoming more and more complex, some riders will appreciate a bike with preeminent pedaling performance combined with simple suspension setup. The capable and neutral handling gets into and out of all kinds of messes, but all this technology comes at a price, and that price starts at \$5,200 and tops out at \$8,600 for the most expensive Wolf Ridge model.

As a one-bike quiver, the Wolf Ridge might be about as good as it gets for riders looking to tackle a huge range of terrain. A true omnivore of a bike, the Wolf Ridge moves from after-work rides to days in the bike park to backcountry slugfests with a grace and ease that belies its inelegant looks.



ODDITY CYCELS PUNK ROCK JAZZ

TESTER: Stephen Haynes AGE: 39 HEIGHT: 5' 11" WEIGHT: 200 lbs. INSEAM: 30"

A thought experiment, if you'll indulge me. Try to picture the bike you learned to ride on. Think about the memory of that bike, just the bike; do you remember it? Chances are good that you do, and for most of you, that bike probably occupies a special space in your heart and memory.

Now, think about the actual act of learning to ride, I'm talking the moment you realized the hand of the adult guiding you was no longer there, or the synopsis in your brain, in blinding calculation far beyond the consciousness of your younger self, fused together to figure out that pedalling made it easier to stay upright. That! That right there, that feeling of heart-pounding freedom, of possibilities, of warmth and success, that's what I want you to hold onto.

In many ways, I feel like riding mountain bikes, or bikes in general, is all an attempt to recapture that moment. Like a drug addict chasing a high, we chase the memory of that first encounter building new and more interesting memories in the service of trying to feel the way we did the day we first learned to ride.

The Bike

The Oddity Cycles Punk Rock Jazz (PRJ) is a bike that has gotten me closer to that feeling than any other bike I've ever ridden as an adult. Taking styling cues from Klunker era cruisers, and wedding that to modern hardtail geometry, this titanium bike is as much a pleasure to look at as it is to ride.

Geometrically speaking, the PRJ is slack, has short chainstays and bars that rise and sweep, allowing the rider to, as Sean "Burnsey" Burns owner/operator of Oddity describes, "ride in the bike, not on the bike." An apt description. I really don't want to go too terribly far down the geometry rabbit hole as this is a custom bike and I'm possibly the least qualified person on staff to address such things. Suffice it to say the bike fit my 5-foot-11-inch frame well. The one and only modification we made was to cut down the 820 mm wide bars to a more respectable east-coast-deciduous-forest-friendly 760 mm.

The primary concern and onus for this bike was its inclusion in the 2017 spring press camp for Paul Components, so it comes as no surprise that the PRJ is outfitted with a smattering of Paul bits (in new anodized blue color). If you know Paul bits, then you know their utilitarian looks are outmatched only by their unwavering performance. If you don't know Paul bits, then you've just been given a homework assignment. White Industries hubs, crankset and headset are the highlights from the rest of the build and are as admirably utilitarian in their performance as their Paul Components brethren.

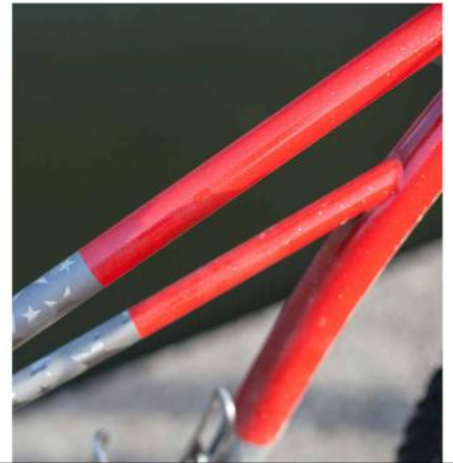
The frame itself is, as I mentioned earlier, titanium, bent into an admittedly less "odd" configuration than most Oddity offerings, in keeping with the "modern clunker" feel. The PRJ also incorporates Horizontally Adjustable

Chainstay System (HACS), licensed from Black Sheep Bikes, which are telescoping chainstays. The HACS allows ease of chain tension without an eccentric bottom bracket or adjustable dropout. "It's a simple, clean system that works very well and has been proven over time," says Burns. "In the case of this frame I added tube-splitters in the seatstays, so not only do you get the advantage of chain tensioning or changing chainstay length for performance reasons, but you get a removable rear triangle for travel," allowing the bike to break down small enough to fit into an S&S travel case.

As with all bikes getting paint, Burns asks for input from the client and then interprets their vision in his own, artistic manner. In this case, Paul Price, of Paul Components, requested "red or white" with a 'Made in the USA' theme," recalls Burns. "Knowing I was building with titanium, which is typically not something I'd have painted, I went with a partial sparklered powder coat that transitions into polished titanium with some subtly etched stars." It's been a complete head-turner wherever I've taken it, that's for certain.

The Builder

Burned out working as a full-time architect by day, tattoo artist by night, Sean Burns had to escape the over-extended hours and exhaustion. "I like to create and wanted an outlet that could also put food on the table. I was racing and riding bikes a ton and enjoyed the

**CUSTOM SPECS:**

- In the bike, not on the bike.
- Wheelies are cool.
- Not suspension corrected.
- Built to crush rock gardens and technical terrain.
- Fun is the name of the game.

PRICE: frame, fork, bar: \$4,390 AS BUILT: more than that ONLINE: oddtcycles.com

process of building up bikes from the parts bin. It just made sense to me to take the leap," remembers Burns.

The raven dropping bombs on the Oddity Cycles logo and headbadge alludes to Burns' interest in exploring that which is contrary to the mainstream bike industry. Willing to push the limits of shape and rider fit, Burns wants to maximize performance for a particular client's riding style, while keeping things artful. No two frames are alike, so there is no mold to be broken. It seems one never existed in the first place.

The Ride

Trying to formulate an opinion on a one-off build that was meant for a rider other than me is an exercise in the weird for sure. It could have been disastrous, but it wasn't. The PRJ is such a joy to ride that, if anything, I'm having a hard time being anything but gushing about it.

Many words have been thrown out to describe a feeling you get when you ride a bike that conforms to your idea of fun: flickable, playful, responsive, compliant, lively, etc. — all of which sort of circle the idea without touching upon it.

Wide bars, slack front end and a saddle placed well over the rear wheel make for an entertaining outing. The PRJ is so willing to loft the front end that wheelies and manuals come naturally, even for someone who can't naturally do them (like me). It's also odd (pardon the pun)



TRYING TO FORMULATE AN OPINION ON A ONE-OFF BUILD THAT WAS MEANT FOR A RIDER OTHER THAN ME IS AN EXERCISE IN THE WEIRD FOR SURE. IT COULD HAVE BEEN DISASTROUS, BUT IT WASN'T.

that, for someone so accustomed to running a dropper post, I'm totally not bothered by a traditional seatpost employed here. At no point did it feel like a rudder, or gropey fist, even when launching it up and over log piles or dropping into steep descents.

Originally envisioned as a singlespeed, the PRJ was sent to us as 1 x 11 using a SRAM GX cassette, which may be the one and only crack in its armor. Being a slack, lightweight bike with short chainstays makes for a front wheel that will loft and wander when sitting through climbs. Generally, I either dealt with the wandering wheel, or chucked it into a lower gear and went for it, cleaning things I've rarely, if ever, cleaned as a result.

The Velocity Double Wide rims trimmed with WTB Ranger 29x3.0 tires were maybe the least sexy bits on the bike. The tires

sweated out pressure profusely, but aside from having to top them off with a little more frequency, they, and the wheels on the whole, performed as needed.

Conclusion

I'm sad to see this bike go. It has shown me what a bike can be when it fully aligns with how I like to ride, which, despite being built for someone else, is what a custom bike should do, isn't it? If you have the cash and have ever wondered whether a custom-built bike is worth the time and investment, I'm here to tell you yes. Yes, it is. And though the price may seem steep, how much would you pay to come close to recapturing a feeling from your childhood?



SURLY BIG FAT DUMMY

TESTER: Evan Gross AGE: 30 HEIGHT: 6'2" WEIGHT: 187 lbs. INSEAM: 36"

Introduced in late 2016, the Big Fat Dummy is not just a Big Dummy (Surly's original 26-inch wheeled longtail cargo bike) with fat tires, though the name makes it seem as such. But there's a lot more than just fat tires that separate these two. It's as if the 26-inch wheeled counterpart got all enduro'ed out, with a longer top tube and slacker head tube, while increasing the tire size. It is 2017, and the original BD came out in 2006, and it was time for an overhaul.

The BFD is still compatible with the Xtracycle longtail standard, so if you are upgrading from a Big Dummy or a Xtracycle FreeRadical, all your old bits should work here. The deck is much wider, so there may be issues with things that mount on top, but everything else should be plug and play.

The box for this thing was huge. Like way huge. Like makes a refrigerator box look small, huge. Impressive, knowing that you could literally haul a fully loaded, average-sized household refrigerator (200 pounds) with a BFD. Judging by Surly's photo gallery, I'm sure someone has, or it won't be long before they do.

The size large BFD, with included Dummy Bags installed, weighed in at 55.4 pounds and measured just over 7.5 feet long. Though Surly claims it's only a roughly 11 percent increase in weight over the regular BD, it is still a lot of bike to move around. It doesn't fit



AFTER GETTING THE SETUP DIALED IN, THIS THING RIPS. MOMENTUM IS EVERYTHING ON THIS BIKE, AND IF YOU'VE GOT ENOUGH OF IT, SHE'LL PLOW THROUGH JUST ABOUT ANYTHING. FULL SPEED INTO ROCK GARDENS, DOWN AXLE-DEEP CREEKS, FLOW TRAILS, IT'S DOWNRIGHT FUN.

on any traditional rear racks, and putting this thing on a roof rack is largely a two-person affair with the chainstays resting on the rack and rear wheel hanging out over the back of the car. Even getting this rig in and out of a pickup truck proved to be troublesome without a motorcycle ramp or an 8-foot section of two-by-four.

Seeing the BFD as primarily a trail work tool, I ordered a few ATV mounts from Kolpin: the Saw Press (\$55) and the Rhino XL Tandem Gun Mount (\$40). Despite a love of venison

jerky, I'm not much of a hunter, so the gun mount held all kinds of hard-to-carry things: McLeods, hoes, rakes, weed whackers, a burl or two, old well pipe, and anything else less than 2.5 inches in diameter at the ends. The rubberized claws and straps kept everything in place and completely rattle-free. These brackets mated well with the saw press out to the side, allowing both saw and tools to be carried and utilized without having to remove the whole mess. The saw press is super rigid, encapsulating the bar in closed cell foam.



Reach: 24.6"
 Stack: 17.6"
 Top Tube: 24.3"
 Head Tube: 69.5°
 Chainstays: 34.4"
 Weight: 50.4 lbs.
w/o pedals specs based on size tested



PRICE: \$2,999 SIZES: S, M, L (tested) ONLINE: surlybikes.com

With a simple turn of a thumbwheel, the saw press opens and the saw is released. Quick, reliable, durable and cheap – you almost never get all four.

Having both Dummy bags mounted and loaded really cut down on the trails that this bike could be ridden on. A long wheelbase paired with a wide load made for some serious bag rubbage. Bag rubbage is never good. Removing the drive-side bag allowed the chainsaw to sit pretty far inbound and greatly reduced the width for narrow, brushy trails. The bags are a bit overdesigned for my liking with more pockets, Velcro, straps and flaps than an army surplus store, but they can probably strap down anything from a canoe to a round bale. I'd rather just have a flap and a pocket with a cinch strap, maybe a few internal organizers.

After getting the setup dialed in, this thing rips. Momentum is everything on this bike, and if you've got enough of it, she'll plow through just about anything. Full speed into rock gardens, down axle-deep creeks, flow trails, it's downright fun. It sort of goes without saying, but it has to have some weight on the rear if you want to think about climbing up anything loose. The saw, chaps, wedges, sharpening bits, extra bar and chain, fuel, oil, and various hand tools brought the weight up into the 75-95 pound range. Depending on the terrain, I'd be lying if I said it was fast, agile or

easy to pedal, but it was a great way to get out to a remote section of trail and get some serious work done. Compared to a BOB Ixex suspension trailer, this was a far more manageable, more fun, bike to ride. No trailer jack, relentless bouncing or flop to deal with.

Why not put an e-bike kit on this, much as you could just about any other bike, but if motorized bikes are permitted and I'm doing trail work, I think I'd just opt to ride something with a bit more oomph and potential range than a 500-1500 watt pedal assist e-bicycle. Sure, there are currently trails where e-bicycles are permissible that aren't approved for motorized use (as confusing as that is). I'm of the mindset that we just keep it to non-motorized and motorized. Gas or electric, assist or throttle, spades a spade, dude.

Compatibility between axle sizes and dropouts has been a Surly thing since they first came out with Gnot-rite spacing then, later, Gnot-Boost spacing. Well, they did it again choosing to utilize a Breezer style open dropout that mounts like a regular QR despite having accommodations for a thru-axle. The reasoning behind the slot is so the rear wheel can drop cleanly out of the cargo frame. Otherwise, fixing a flat in the field with a thru-axle would prove to be a pretty tedious affair.

If Surly lets us hang onto this through the winter, I could see some lakeshore fishing trips

or snowmobile trail camping excursions. It seems Surly's sister company, Salsa, thought the same thing. Salsa released its own fat cargo bike recently, the Blackburrow. Effectively the Blackburrow is a shorter wheelbase, lighter, easy to transport, lighter load carrying (110 pounds) aluminum Big Fat Dummy. If the left and carrying capacity of the Big Fat Dummy is overkill for your needs, a Blackburrow might be better suited to your rad-dad adventures.

So much to the chagrin of fellow trail enthusiasts (and internet trolls everywhere), this is a totally capable, albeit a touch slower, trail bike that has the capacity to hold nearly 200 pounds of whatever the hell you want to bring. Oh, and like most things with two wheels, it's still fun to ride. If you have aspirations of bug-ging out for a few weeks through the back-country, riding the coastline or just getting to work on the local trails, this might be your next mule. Before you run out and grab one, just make sure you can haul it to the point of intended use. I must admit after having had BFD for the better part of four months, I'll miss having this bike as a trail tool.



CARVER TI ALL-ROAD

TESTER: Karl Rosengarth AGE: 59 HEIGHT: 5'10" WEIGHT: 150 lbs. INSEAM: 32"

PRICE: \$1,900 Pinion-compatible frame (\$5,672 as tested) SIZES: 44, 46, 48, 50, 52, 54, 56 (tested), 58, 60, 62, 64, 66 cm ONLINE: carverbikes.com

Reach:	14.8"
Stack:	23.1"
Top Tube:	21.7"
Head Tube:	71° (100 mm fork)
BB Height:	11"
Chainstays:	17.9" - 18.7" (min-max, with Pinion drive option)
Weight:	Weight: 24.2 lbs. w/o pedals specs based on size tested

Carver's Ti All-Road is a mountain biker's road bike. With a design aimed at mixed-surface comfort and stability, the All-Road stands ready for rough road rambles, gravel grinds and singletrack shortcuts.

The Bike

Built from 3/2.5 titanium alloy, the All-Road comes with a lifetime warranty and crash replacement discount. Stock frames come in 2 cm size increments and retail for \$1,400. For \$200 additional, you get the option of making custom geometry tweaks and/or adding a few braze-ons (typical 6-8 week turnaround). Our size 56 cm frame features the optional \$500 Pinion drive interface.

The Pinion P1.9XR gearbox provides nine speeds spanning a 568 percent range. Carver's rear sliders permit proper tensioning of the Gates Carbon Drive belt. All-Road frames come with the customer's choice of Paragon dropout inserts. Ours features vertical wheel slots, making it a breeze to remove and reinsert the quick-release wheel while maintaining proper belt tension.

The All-Road fits tires up to 700x45, and with WTB Riddler tires of that size, the bottom bracket sits 11 inches off the ground. The belt drivetrain determines the chainstay length, which measures 18.3 inches on our setup. Frames come standard with rack, fender and three water bottle braze-ons, though with the Pinion drive, only a small bottle fits under the

downtube (and inserting/removing requires turning the front wheel to the side).

The Ride

Carver's 710 mm wide MyTi Carbon bars, lifted with a 1.5 inch stack of stem spacers, put me in a comfortable, heads-up riding position that inspired confidence, even in sketchy conditions. The All-Road felt at home zipping down gravel roads and romping over roots and rocks on local single-track. The titanium frame and Carver Carbon CX Disc fork combined to provide a supple ride over uneven surfaces without feeling flexy or imprecise.

I dig flat bars, but if you prefer your road bikes with drop bars, the All-Road's stack and reach are on par with other "adventurous" road bikes. Spec'd with drop bars and skinnier tires, the All-Road should make a fine gravel race bike, or a sporty scooter for everyday escapes.

The low-slung, central location of the Pinion gearbox made its 4.9 pounds weight less noticeable than the rearward weight bias of internally geared hubs. I appreciated the balanced feeling, especially when venturing onto dirt or skittery gravel. Speaking of low-slung, the bottom bracket height is suitable for mild, but not gnarly, singletrack, so don't think of the All-Road as a mountain bike surrogate.

The Pinion changes multiple gears with

one twist of the control, and it allows shifting while at a standstill or with the cranks rotating backwards. While the transmission upshifts (to higher gear) under load, the design prevents downshifting if the pedaling pressure is too high, so plan on soft pedaling or coasting while downshifting.

When transitioning from coasting to pedaling, the gearbox would often emit an audible "click" or "thunk" as the gears engaged. When I asked, Pinion told me: "With a draggy freehub body the belt or chain drives the output shaft a few degrees forward, unloading the pawl from the tooth it is engaged with. When you get back on the gas the pawl pops back into place producing a thunk or click. Pinion has made a rolling design change to the shape of the pawls and teeth they engage to mitigate this feeling and sound." Good to hear it's being addressed, as the thunking got annoying at times.

Conclusions

Carver designed the Ti All-Road to fill the popular gravel grinding, light touring and bikepacking niches. I'd have to say "mission accomplished." The All-Road this is a very versatile platform, and I can envision builds ranging from fast and furious to rough and ready. With both stock and custom options, your road to adventure could be named Carver.



Cons

- Finding level surface to park.
- Finding big enough spot (essentially two parking spots worth).
- Included instruction manuals are minimal; had to review the online assembly videos.
- The ladder is slippery when wet. I would suggest putting some grip tape on the steps.
- 2-3 mpg reduction in fuel economy, roughly the same as a roof basket or transporting bikes on your vehicle's roof.

Pros

- Off the ground: allowed a nice breeze when opened and stayed dry when it rained.
- Safe from wildlife such as lions, tigers, and bears.
- One person is able to set up and break down in less than 10 minutes.
- Can pack pillows and bedding inside the tent; it's ready when you are.
- Less dirt accumulating inside the tent.
- Don't need to find a smooth surface to set up camp.

TEPUI KUKENAM SKY 3-PERSON TENT — \$1,395

By Scott Williams

We've all seen these rooftop tents floating through magazines and the interwebs, but not many of us have actually seen them out in the wild, so I was pretty excited when Tepui Tents out of Santa Cruz, California, was willing to send us their 3-person Kukenam SKY for review. Arriving in late April, it served as the weekend roost for the first two months and then sporadically throughout the summer months.

Installation

On paper, initial setup seemed straightforward, determine the tent's entry point (i.e., driver's side, passenger side or the rear of the vehicle) and attach the mounting rails and ladder to the base accordingly. Next, a second set of hands is required to hoist the tent onto the vehicle's load bars. The mounting system consists of two front and two rear flat brackets that are tightened by a pair of bolts, sandwiching the vehicle's load bars between the brackets and the base. This simple design works well with all types of load bars whether round, square or aero.

We installed the tent directly to the factory load bars of a Subaru Outback. The load bars have a dynamic load capacity of 165 pounds, which is the weight limit at which the vehicle can safely cruise down the highway while loaded. With the Tepui tent weighing approximately 130 pounds, we are safely under the max capacity and good to go.

The Outback factory roof rails also proved to be a huge PITA when tightening the mounting hardware which added approximately an extra hour of setup time due to the specific vehicle. Thankfully, Tepui included a ratcheting wrench in the kit. Vehicles that use an aftermarket load bar system should have no problems achieving a 30-45 minute install time.

Construction

The Kukenam SKY canopy is constructed of durable canvas with a waterproof coating. Four side panels and two roof panels have fully zippered mosquito screens, which can serve as access ports and also provide ample airflow within the tent. For the sides, Tepui added a dual-closure system. The exterior canvas awning can be battened down, and an interior canvas closure can be zipped up when mother nature tests your limits. The removable rain fly is a polyurethane coated polyester that extends over the front and rear of the tent. The 3-inch

gap between the tent and rainfly helps regulate the temperature inside. It can also be easily removed/installed with six buckles.

Inside, a 2 ½-inch foam sleeping pad is included, providing a sleeping footprint of 56 by 96 inches. For comparison, your standard Queen size bed is 60 by 80. As for headroom, the center is 46 inches and drops down to 34 inches to the front and rear, offering plenty of room for two to comfortably sit and play some rendition of poker.

Overall Thoughts

Tepui's rooftop tent is perfect for the individual who typically finds themselves traveling to remote locations and needs to set up camp during their adventures. Many will balk at the price of the Kukenam SKY, and at just under \$1,400, there is no denying it's an expensive tent. However, the telescoping aluminum ladder, insulated fiberglass base and the canopy's skeleton system that pops open with ease are all well-crafted and optimized to keep the weight of the tent as minimal as possible.

However, there are a few places where the Tepui falls short. The tent didn't leak, but there were tiny pin holes around a few seams. After contacting Tepui, they said the tent was defective and quickly sent a Kukenam SKY Ruggedized canopy for replacement. The ruggedized canopy has a slightly thicker canvas and four internal stash pockets on the inside. Unfortunately, one of these stash pockets was sewn upside down making it useless. I brought up the quality control issues to John Griffith, sales and marketing manager at Tepui, and he mentioned that in 2019 they will have full-time quality control personnel auditing the Tepui factories to mitigate further quality issues such as these.

Sleeping in the tent was pleasant, regardless of the weather outside. The canopy remained warm and dry during the spring showers and well-ventilated when temperatures became hot and humid. If you get a clear night, the SKY panels can be opened and the rainfly removed offering a starlit sky to fall asleep to. However, the SKY panel zippers are not waterproof, so unless you are 100 percent certain a random storm is not rolling in, I'd suggest only folding back half the rainfly.

So, what if you have to pee in the middle of the night? Don't be lazy, it's not that difficult. If you can crawl out of your bed and walk to the bathroom in the middle of the night at home, then you certainly are capable of unzipping the tent and crawling down a couple steps.

The more time I spent using the tent, the less I wanted to go back to sleeping on the ground or in a hammock. Sure, tents, hammocks and your own car all work perfectly fine; there is no denying that fact. But, it's like comparing crab meat from a country store in the middle of West Virginia to what you can find at an oceanfront restaurant in Delaware. The Tepui rooftop tent is straight luxury, and I am in no rush to take this off my car.

tepuitents.com



RESTRAP BAGS

By Helena Kotala

With the explosion of bikepacking, the market has become inundated with small bag makers, each with their own take on a relatively simple concept: holding stuff. It seems that each city has its own local bag maker and each maker has its own cult following.

Restrap is a small British bag and accessory company out of Yorkshire. Founder Nathan Hughes began making pedal straps out of upcycled seat belts in 2010 and from there expanded to making a variety of bags for commuting and urban riding. A few years later, the Restrap team began dabbling in off-road touring and naturally began making bags for that purpose as well.

The Restrap #CarryEverything bikepacking line launched in 2015 and includes a saddle bag holster, handlebar holster and frame bags of varying sizes.

Saddle Bag Holster - \$132

The Restrap Saddle Bag Holster comes in two different sizes – one that holds up to 8 liters and one that holds 14. I tested the larger

of the two, and had just enough clearance between my rear tire and the bottom of the bag. Dimensions can be found on the Restrap website, so be sure to check there and make sure you'll have enough clearance before ordering a large.

The Saddle Bag Holster works like any other seat bag, attaching to the saddle rails and seatpost. All three attachment straps are made from a rubberized material that helps prevent slippage and holds the holster securely in place.

The holster itself is constructed from 1000D Cordura and is quite stiff, which keeps your load from bouncing around once tightened snugly against the saddle. The two pieces of the holster are held together on the seatpost end by paracord webbing that can be loosened or tightened depending on the size of the dry bag you put in it, and also can act as an extra storage spot provided you have enough tire clearance underneath the bag.

On the rear end of the holster, a piece of nylon webbing and a magnetic buckle keep your dry bag secure and cinch down to make your luggage as compact as possible. The buckle is extremely easy to use, even with heavy gloves on, and tightens and releases in seconds.

Overall, the Saddle Bag Holster worked extremely well. While I cannot compare it to other holster-style seat bags on the market because this is the first one I've tried, I liked it better than soft bags such as the Revelate Viscacha or Pika for two reasons: it stays put better on the rough stuff, and I appreciated the ability to remove the dry bag but keep the holster on the bike.

My testing period wasn't quite long enough to truly attest to its durability over time, but the Restrap Saddle Bag Holster is holding up well so far and definitely feels very sturdy. And it's one of the classier-looking bags out there to boot.

Bar Bag Holster - \$73 without dry bag, \$86 with dry bag

Also a stiff chassis for holding a dry bag up to 14 liters in volume, the Bar Bag Holster is made of the same durable Cordura as the Saddle Bag Holster and includes similar easy-to-use magnetic buckles.

It affixes to the bars via two nylon straps and buckles. Two rows of daisy chain on the backside of the holster allow for additional attachment to the bike if necessary, but BYO-Strap, as one's not included. I do like that the daisy chain allows for customization, as not all setups will need a third contact point, and



WITH THE EXPLOSION OF BIKEPACKING, THE MARKET HAS BECOME INUNDATED WITH SMALL BAG MAKERS, EACH WITH THEIR OWN TAKE ON A RELATIVELY SIMPLE CONCEPT: HOLDING STUFF.



when they do, there can be a lot of variation in fit and configuration.

The holster also includes a magnetic attachment system for an add-on food pouch, which Restrap sells separately for \$27.

The holster itself and mechanism for holding dry bags and other luggage worked without any issues. The straps that hold the holster together and the dry bag in place didn't come loose at all, and I liked that they have a strip of Velcro that wraps up the excess to avoid dangling.

However, the double straps that attach to the bars did begin to loosen from time to time on rougher terrain. Restrap recommends doubling the straps back, but I did this and they still found a way to work free a little more than I would have liked. I ended up alleviating the issue by just tying the ends off, which was a fine solution.

Frame Bag – \$86 (size large)

Restrap's frame bags come in three different sizes and three corresponding price points. A chart on the website will help you figure out which bag to choose, and I would advise that you use it. The size large bag was quite long and just barely fit on the large frames we tried it on (and was even too big for some others).

The frame bag is made with the same Cordura material as the holsters and includes a waterproof zipper in either side. The inside features a mesh divider pocket to help keep stuff organized, which I found to be helpful for finding small items when I needed them.

The bag affixes to the frame via similar rubberized straps as the ones on the saddle holster, which worked great for keeping the bag in place but were a bit rough on the frame paint. However, an update to the frame bags for Eurobike this year replaces the one heavy rubberized strap on the downtube with two smaller, thinner straps – still rubberized, but seem a bit more flexible and easier on your precious bike.

Dry Bags – \$13.50 – \$17.50

A dry bag is included when you purchase a saddle holster and is an optional addition with the purchase of the bar holster. You can also buy Restrap's dry bags separately, which is a nice option in case one needs to be replaced.

Restrap offers dry bags in two sizes – 8 and 14 liters – both of which are fully waterproof and are sized perfectly to fit in the saddle and bar holsters. They feature a roll-and-buckle closure on one side, while the other is flat so that it fits better in the saddle holster. The 14

liter bag also comes with an option for a roll on both sides for easier access to the contents when used in conjunction with the bar holster.

While both holsters that I tested had the ability to hold 14 liters, I ended up with one 14 liter double roll and one 8 liter dry bag. After some experimentation, I settled on using the larger of the two on the saddle, which easily held my sleeping bag and extra layers despite losing a small amount of room due to the double-sided closure. The 8 liter bag filled with miscellaneous items fit into the bar holster along with a separate roll containing my sleeping pad and tarp.

Conclusion

I have nothing but two thumbs up for the saddle holster, which held a decent-sized load securely and was extremely user friendly. While the bar bag holster and frame bag didn't blow me away, they are still solid pieces of bike luggage that combine functionality, durability and aesthetics (for those who care about such things) into one package that is a choice worth considering for anyone who spends a good bit of time traveling or camping out by bike.

restrap.co.uk



SOMA CONDOR – \$100

By Helena Kotala

Every time Dirt Rag editor Eric McKeegan looked at the Soma Condor drop bars on my gravel bike, he just shook his head and laughed. Which made me laugh. Why? Because they do look pretty ridiculous.

But all giggles aside, these bars do have a purpose aside from looking funny, and that's to provide an alternative bar option for people who want the benefits of drops but have fit issues or never liked traditional offerings.

The Condor is dubbed as an “ambitious alternative drop bar,” a statement that I can certainly agree with. It has more curves than you can imagine – in fact, there's no part of this bar that isn't bending in some way. With rise, backsweep, upsweep and shallow flared drops, it offers hand positions galore and is ideally suited for long days in the saddle. Rotating the bars forward and back can emphasize or deemphasize certain characteristics depending on the wants and needs of the individual using them.

These aluminum drop bars were originally designed for the Japanese market, but Soma decided to try their luck in the States and see if this unique design would fly. Because of their intended market, the Condor bars weren't designed with large hands and wide shoulders in mind. The XL size bars are 49 cm wide at the drops and 44 cm at the hoods, while the medium (the smallest size available) is only 45 cm wide at the drops and 40 at the hoods. The large is somewhere in the middle and the size that I tested, which I find somewhat amusing because, at 5 feet 3 inches, I've never been a size large of anything in my life.

I didn't expect to love or even like these bars, but they surprised me. I should have been a little more open-minded going in, because I did suffer from lower back pain while using traditional drop bars

on rides longer than about five hours as well as occasional hand numbness. I previously attempted to fix these ailments by swapping stems, but soon resigned myself to accepting that they were just a part of doing long rides.

Enter the Condor bars. I won't say my issues were magically solved – regular stretching and riding are also vital – but I will say that I did a 10 hour ride last weekend with absolutely no back pain whatsoever and a number of other all-day rides over the past few months that resulted in similar outcomes.

The shallow drop allowed me to spend much more time in the drops without discomfort than on “normal” bars. Most of my long rides on the gravel bike are mixed surface, with chunky dirt roads and even some singletrack thrown in occasionally, so having the extra control that riding in the drops offers while maintaining a less aggressive position is very advantageous. I used to dread long, loose gravel descents because I knew that being in the drops for so long would hurt my back and neck, but the Condor bars have all but obliterated that issue.

As Soma says, the Condor is not a better bar for everyone, but it may be a solution for riders who find other types of drop bars not working for them. Bike fit is a very personal thing, and what worked for me may not work for you, but if you're a smaller rider (or at least have small hands and relatively narrow shoulders) and traditional drops bars aren't cutting it or you have experienced similar issues to my own, the Condor just might be your ticket to soaring down the road (or wherever your adventures take you) in comfort for miles.

somafab.com



BONTRAGER SE4 29X3.0 – \$105

By Eric McKeegan

I've been a fan of Bontrager's Chupacabra tires since they first hit the market. For something so light and fast the Chupas manage to provide predictable traction in conditions that should stymie its pattern of small tread blocks. But that lightness comes at a price. I've punctured these tires a fair number of times in the last few years, and in high traction situations, the lightweight casing can get squirmy, even when supported by wide rims. I'm a fan of 29plus for exploratory rides, in the woods and in the city, and immediately swapped the stock Chupacabras on my Trek Stache for a set of Maxxis Minion 29x3.0 tires as soon as they hit the market. After a few months on the new 29plus SE4s, the Minions have found a serious competitor.

Based on the tread pattern that is stock on almost all Trek's full suspension trail bike offerings, the SE4 in the 29x3.0 size is the most sturdy tire available for 29plus. The SE is the "enduro" designation for Bontrager's tires. The SE tires all utilize a Core Strength casing, which utilizes nylon inserts in the sidewall and below the tread to increase puncture protection and provide more support under cornering loads. For reference, it feels slightly less robust than a Maxxis Double Down casing, but not by much.

The SE4 tread is aggressive but doesn't require the aggressive riding style needed to get the most out of the Minions. The DHF/DHR have a wide channel between the center and cornering knobs, so cornering requires a committed lean. The SE4 has transition knobs and works with a wide range of turning styles. There is copious braking traction, and the dual compound 61a/50a rubber handles wet roots and rocks quite well.

The 60tpi casing provides excellent support for cornering and allowed me to drop a few pounds of pressure on each end without resulting in too much squirm or constant rim strikes in rough terrain.

I am sure the Sun Duroc 50 rims I've been riding helped to keep the sidewalls supported as well.

All this rubber and strong casing aren't light. The pair of prototype SE4s I've been riding are right around 1240 grams each. That is a little lighter than I expected but still heavier than the Minions by about 150 grams. On pavement, the SE4s make their weight and soft rubber known with a sluggish feel. That sluggishness goes away as soon as they hit the dirt and never feel slow except when trying to hustle in very tight and slow trails. Taking advantage of the traction, momentum and roll-over ability of these tires is key to keeping speeds high on the trail while conserving energy.

The SE4s fill a hole in the 29plus tire world. The strong casing should work well in areas prone to sidewall cuts and punctures, and the tread pattern will turn any 29plus bike into a force to be reckoned with in almost any terrain. For riders that need less beefiness, the same tread pattern can be had in the XR4 with a 120 tpi Inner Peace casing that is similar to the Maxxis EXO casing. Bontrager offers both SE and XR version of this tire in plenty of sizes including 2.4, 2.6 and 3.0 in 29 inch, and 2.4, 2.6 and 2.8 in 27.5 inch.

Riders looking for an aggressive all-around tread pattern, or the absolute strongest tire for bikepacking should be very happy with a set of SE4s.

bontrager.com



KENDA HELLKAT 27.5X2.4 - \$80

By William Kirk

Kenda introduced the Hellkat as a full-on downhill tire capable of handling the most rugged of world cup tracks. The tire is aimed at a wide variety of technical terrain; its large center blocks and aggressive cornering knobs place it at the forefront of Kenda's assortment. I fitted the 2.4 inch Hellkat's onto my 35 mm internal-width rims, which gave them a near perfect profile. It's worth noting the "near" in my statement; their 2.4 width seemed to pair perfectly with a 30 mm internal diameter rim, which I checked on my trail bike. Anything wider seemed to square off the tread profile a bit more than I'd prefer. The Hellkats easily mounted up tubeless to my thoroughly dented downhill rims with a floor pump (which was an impressive feat).

My first ride on the Hellkats was on our local downhill track, which is primarily loose over hardpack terrain. On my initial runs, the Hellkats handled the trail well but became a bit nervous in corners when pushed hard. Once moisture was introduced, I felt these tires began to show their true colors. They bit into the soil deliberately, but the tall tread blocks weren't so tall as to fold over when cornering hard. I found the spacing on the Kendas to be excellent for allowing the tire to quickly shed mud and get back down to the business of going down.

The Hellkats performed well on familiar terrain, but how did they fare away from home? I found out on a trip to Massanutten, Virginia. For those of you unfamiliar with Massanutten, it is a mixture of flow trails and raw, rocky, natural lines. The Hellkats took to most of this excellently. The deep blocks dug into the loose sandy terrain giving me the confidence to initiate turns at speeds where less-aggressive tires had me on my brakes. Some of the sun-baked, blown-out lines were littered with loose rock, which made the tire feel a bit squirmy, but I am not sure any tire would have inspired confidence in those conditions.

On our second day in Virginia, we moved to a new area with a different soil compound. Overnight thunderstorms changed hardpack into a thick clay quagmire. Early morning wet conditions began to

solidify throughout the day, giving the Kendas an opportunity to showcase their mud-shedding ability.

The Hellkats were not without fault. Despite the large rim size, I felt the volume was undersized to tackle the world's most difficult downhill tracks. When I spoke with Kenda regarding this, they assured me the issue was realized and corrected in subsequent molds. All new Kenda Hellkats will be shipping at a true to size 2.4 volume. As a long-time disciple to the Maxxis Minion DHF, how did the Hellkat compare? They are different tires for different needs. The Hellkats excel on ungroomed terrain and love when things get wet and weird or extremely loose and dry. While I've always felt the Minion DHF is one of the best all-conditions tires ever made, it has few limitations, one of those being very clumpy mud, which is where the Hellkat excels. If you live in an area that receives frequent rain, the Hellkat will make an excellent, all-conditions tire. Conversely, if you reside in an area where it dries up for six months at a time and becomes loose and rowdy, the Hellkat will provide you with the clawing traction you need. The only place I didn't appreciate the Hellkat is super-buff, bike-park-style trails. The worse the trail looks, the happier you'll be on Hellkats.

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Riding the Flume Trail, Lake Tahoe, California. Rider: Tri Pham. Photo by Ricky deLeyos



Bell rock Trail, Sedona, Arizona. Photo by Melissa Uland.



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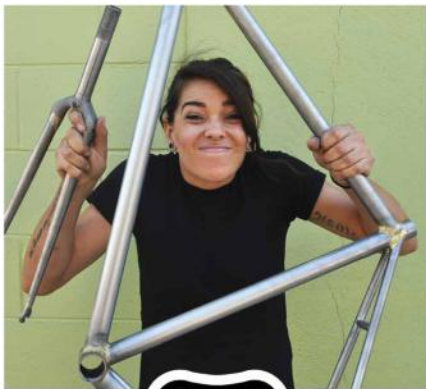
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Reader Tom Nunn submitted this image to "Freezing Rain," Dan Lawlis's cover illustration for issue #137, while in recovery from a recent hernia surgery.



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Kevin Nieman, who created this cover art, told us: "I can't think of another illustration in which I smiled more during its creation. I can only hope it evokes the same response from the viewer. A bit of 'stop and smell the roses,' but a winter version. Stop and taste the snowflakes."

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