



100% film photos

bicycles and frames 2018





Rivendells are **not** for riders inspired by survival rides, racing, or the suicidal stunts of Red Bull YouTube stars or anybody else who shows off for fame or money or seemingly harmless peer approval.

We make bikes for shoppers, commuters, day-riders, trail riders, tourers, randonneurs, all-purpose and no-purpose wanderers. We make them for people who love riding and know the best kind is hierarchy-free, hero-free, waiver-free, registration fee-free...who know riding isn't made better by an audience, applause, or awards.

Making bikes for normal people allows us to make them more useful, more comfortable, more beautiful, and much safer—because we don't have to conform to market forces and trends that foul them up.

Today's glory material is carbon fiber, but we don't trust it, so we don't use it. It's brittle. Not as brittle as glass, but too brittle for a frame or fork. Brittle things are dangerous because they fail without warning: Tiny flaws born in manufacturing or picked up in use turn carbon frames and forks into cocked mousetraps.

Carbonphiles point out that Boeing uses some carbon on some planes. True, but Boeing tests carbon to high heaven, and uses it where the stresses are suitable for carbon and more predictable than they are on

a bike. If airplane carbon crapped out the way bike carbon does, Boeing would stop using it.

FLASH: They are, in fact, having second thoughts...

Bicycle makers know first hand the dangers of carbon, and they just shrug, stay the course, damn the torpedoes, what's a "second thought"?

Rivendell frames and forks are always made of chromium-molybdenum (CrMo) steel. It's an airplane material, too, but unlike carbon, CrMo has a proven and impressive record on bikes. It's tough, not brittle—less like a window, more like a nail. It doesn't snap or shatter. Instead, it dents and buckles, each dent and every buckling *proof* of how wonderfully it responds to trauma.

A deep scratch in a stressed area of carbon is likely to grow into a crack, then snap. The same scratch in CrMo is far more likely to stay a scratch forever. If it's severe enough and stressed enough it may become a crack, but even then it creeps at sloth speed, so you have time to see it, hear it creak, and feel your bike get weird well before it crashes you.

But Rivendells are more than material. They're fanatically designed down to the micro-detail. We tuck the chainstays in close where the crank arms pass, and make room for fat tires on wobbly rims to roll through. The frames have our own lugs and fork crowns, designed to strengthen the joints and add beauty. We give our forks low, lovely, small-radius fork bends, not because the curve affects the ride, but because a permanent curve should be permanently beautiful.

This year, 15 million new bikes will be bought in the U.S. Just 800 will be ours—one in every 18,500. One

in four go to repeat customers, and lots of Rivendell riders hear about us from friends.

Some smart cycling seers say 30 percent of new bicycles will have electric motors by 2023. These and other hyper-everything, super-automated two-wheelers promise to do more for you and require less of you than ever before. Good for them, that's all cool, but heck will freeze over before we go there.

Ever since 1994, we've been contentedly out of sync with most bicycle movements. (Being small means freedom from trend-dependency.) Instead, we're sticking with the kinds of bikes we love, making them as close to perfect as they can be.

### Turning a frame into your bicycle

A Rivendell bicycle starts with a frame, and we make sure you get the one that makes sense for you. Then the customizing begins. You don't need a bunch of technical knowledge to pick the best parts. We'll work together to make a bike that fits, feels great, and oozes harmony.

We correspond in person, by phone, or email until all details are set. It's casual, not intense, and usually takes three to five phone calls or emails. Vince has the record with 235 emails, set in 2015-2016.

It's our habit and pleasure to provide you this personal attention, and *hallelujah!*—it's the best way to get you a bike that will be as fun and useful and even more beautiful in 30 years than it is now.



# TOUGH BIKES TO MAKE

A Rivendell frame is complicated to build, because it has lots of artsy but unnecessary details that tend to magnify imperfections. Some are shown above. Some blue paint climbed the wall in the R, for instance.

The spec tolerances are small, and if the makers miss the mark, we reject them—even when the mark isn’t missed enough to dysfunctionate anything. We specify the wall thickness and butt lengths of our tubes, and tire and crank clearances. We pick the dropouts for each model, and how we want the tubes joined.

For the forks, we use three different weights and gauges, depending on the model and use, and two of the three blades are custom made for us, because the dimensions we wanted didn’t exist. We specify the radius of the bend in the fork blade and where it goes on the fork. Most fork blades have a 12.5mm

outer-diameter lower tip, a diameter more common in the ’60s and ’70s than now, but it works the same and looks better. We think a lot about tiny things that affect the looks and life of the frame. Our 2018 frames are stronger, more refined, and as good-looking as they’ve ever been.

Every Rivendell rides like a Rivendell. No matter the model, they all have neutral manners and are easy to maneuver, never overreactive. Our road bikes steer from the center, with your hips, and respond immediately to body English. Our Country Bikes are less responsive by design, and our All-Rounders, with longer chainstays than ever, ride better than ever on street or trail. (It’s impossible to describe ride quality in words; so much depends on what you’re used to. One rider’s sluggish is another’s stable, and our twitchy might be your responsive.)

We’re picky about who builds our frames. Of the frame suppliers we’ve used over the years, few have equaled and none have exceeded the quality,

precision, and consistency of the Rivendell frames from our small-volume Taiwan builders. They build to spec, and frames and forks get tested to rigorous, objective standards by computer-controlled hydraulic robots. What we learn from the tests, we apply to the production frames. If you shop with an American job-preserving conscience, consider that nobody in America can deliver the combination of detail, quality, consistency, and volume we require to stay in business. Our Taiwan-built frames directly support nine of 13 jobs here at Rivendell in Walnut Creek.

We like to support American framebuilders, too, though, so we still offer U.S.-built custom frames, starting at \$3,500, and a few low-volume production models, from about \$2,700. They’re still pure Rivendells, they just aren’t *purrr* Rivendells. Since they’re made in batches as small as one, there’s more flexibility in braze-ons and color. If you want more info on these, you can find it at rivbike.com, or call or email and we’ll help you directly.



# ROAD BIKES

Rivendell road bikes have the zip of the best classic road bikes, but are more comfortable. We use quill stems, so raising the handlebar is easy. Making a line of bikes for quill stems tremendously complicates fork making and frame compatibility, but it’s better for you. Our road bikes are groovy because we’ve perfected the steering geometry, lengthened the chainstays to make them less erratic at high speeds, and increased clearance to fit more tires and fenders.

**Best bars:** Albastache, drops



# COUNTRY BIKES

When you need to carry more stuff and ride rougher surfaces than even a Rivendell road bike can handle, get a country bike. They have stouter frames, longer wheelbases, fit bigger tires (up to 45mm), carry heavier loads, and are cushier when you need that. They easily fit racks, fenders, and carry light-to-medium touring loads. You can ride them unloaded with drop bars road-style, or switch bars and be super comfortable on day rides, commutes, and most fire trails. Our most popular style, barely.

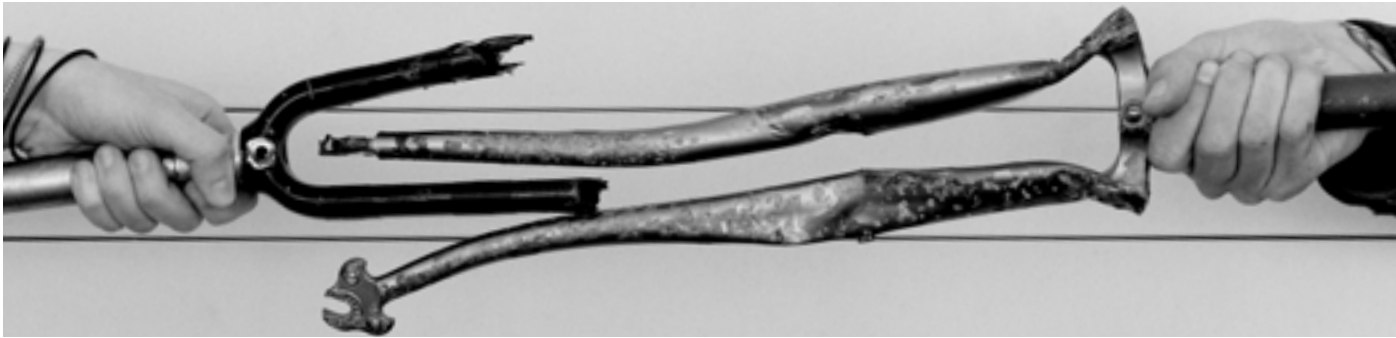
**Best bars:** Billie, Albastache, Choco, drops



# ALL-ROUNDERS

These are the best-handling fat-tire bikes we’ve ever made. They’re a notch up in ruggedness and load capacity from the Country Bikes, fit bigger tires, and have stouter frames and forks. The longer chainstays improve their ride on flat and mild pavement—like long skateboards and limousines—but they also improve your weight distribution for better climbing and descending steep dirt. When you don’t know where you’re going, what you’ll bring, or even what the hell you’re doing, get a Rivendell All-Rounder.

**Best bars:** Bosco, Billie, Wavie, Choco



*This carbon fork died in a sword fight with a steel fork that (in that fight) was barely scuffed. The mangled steel fork here died in Taichung, when a box of forks fell off a truck when the driver swerved to miss a wayward dog. The dog was fine, but this fork got run over by several cars. Although neither fork was killed during riding, both show how carbon and steel respond to stress.*

# FIXING ROAD BIKES

In the pre-mountain bike mid-1970s just three kinds of road bikes—racing, sport-touring, and actual touring—covered most riding. The differences were fanciness, weight, gearing, and how much tire the frame could gobble up.

If you had a racing bike, you could still mount 32mm tires and clamp on a rack and go on a non-camping tour. If you had a touring bike you could ride 32mm tires with fenders, or strip it bare, ride lighter tires, and almost race. Between racing and touring bikes there were the fence-straddling sport-tourers.

By the mid-’80s, the mountain bike and “hybrids” took over comfortable and practical riding, and the road bike quit even trying to be useful. It became a cartoon of extreme features, and today’s high-tech fancy ones still are.

The handlebars are so low you hardly ever ride on the drops. (The latest modern drop bars have been reshaped to acknowledge that.) The tires are too skinny for rough roads, so you have to pump them to

100 psi or more, and then they feel like air-iron. The clearances rule out fenders, so today’s typical road bike works only on smooth roads in fair weather.

The typical modern road bike is a short-wheelbased, hard-tired flyweight that requires your full attention and a tight rein. It’s like a short kayak, skis, or skateboard in that way. Short things get jumpy and wiggly when you go fast on them.

Here are suggestions, written for pro road bike designers, using the language of bicycle frame design, on how to design better road bikes.

*If you aren’t a pro bike designer, please skip to the next page. Thanks for reading this far, now good-bye.*

1. Design for a 302mm radius tire and a brake reach of at least 52mm, and put the center of the brake and chainstay bridges 366mm from axle center. It’ll fit a 28mm tire with fenders, or a 32mm tire without.
2. At 333.5mm forward of the center of the rear dropout and above the front one, make the tire clearance at least 48mm, so a wobbly 32 won’t rub.

3. Make the fork 365mm (-1/+2mm) from the axle to the brake hole center (not along steering axis). Again, for a 32mm tire. That’ll center the pads in a Shimano BR-6500 sidepull. As SRAM and Campy lose sales, maybe they’ll start making smarter sidepulls. (Or maybe they’ll just go all-disc.)
4. Lengthen the chainstays to 46cm at least. The bike won’t be slower, and it’ll descend better.
5. Don’t make any seat tube angle steeper than 72.5 degrees. Nobody rides 73 degrees with a mid-clamped saddle, and most want the saddle all the way back. So stop it at 72.5.
6. Road bike drop should be at least 72mm. The bike will still comply with pedal-strike laws, and the bike will ride and fit better. Or be bolder and go to 80mm. There is seriously no drawback.
7. Even if the frame is carbon, use a steel fork and ship it with an uncut steerer and a mess of headset spacers, so riders have the option of higher drop bars, and a safer and more comfortable ride.



A Roadini feels and rides better than a \$6,000 modern road bike and costs about \$3,500 to \$4,000 less. Its longer chainstays make any descent smoother, so safer. The higher handlebar takes weight off your hands. It fits up to 35mm tires, for cushy rides on crappy roads, and fenders with 28s, for rain. The materials are top-notch,

and the craftsmanship is as good or better than you’ll see on 90 percent of the custom frames made in America. The fork is stunning, from cream-detailed crown to cream dropout mohawks, and the way the end of the chainstays tapers down to the face of the dropout is so neat! Sorry that we don’t show it in this catalog.

The Roadini costs so little because it has fewer lugs than our other bikes, that’s all. We can assemble it plain or fancy; stone-age, middle-aged, or modern. It’s a beautiful, comfortable, great-riding, all-weather, all-surface road bike, no matter.

Frame, fork, HS, BB: \$900  
Typical complete bike: \$2,000  
Size, wheels: 47 (650B.); 50, 54, 57, 61 (700c)  
Color: Dk. Silver, Old Blue, and Orange (if we’re lucky).



**The A. Homer Hilsen was born in 2003, and filled the humongous gap between race-only road bikes and mountain bikes.** It redirected our approach to bikes and riding, and created our “country bike” category. (Mainstream bike makers are going with the more confining and baffling term, “gravel grinders.”)

Homers’re at home on paved or unpaved roads, credit-card tours, centuries, and brevets—so the only thing keeping it from being (in our parlance) an *All-Rounder* is the size of tire it can fit. Homers go up to 45mm, which, for a roadish bike, is seriously phenomenal, so no need to get greedy and wish for more.

We ride our Homers with 33mm to 40mm tires, a small rack or BananaSack on the handlebars, and a medium SaddleSack or another BananaSack on the saddle.

If you want speed on the road with versatility to tour or ride dirt now and then, the A. Homer Hilsen is ideal.

**Frame, fork, HS, BB:** \$1,500  
**Typical complete bike:** \$2,900  
**Size, whls:** 47.5, 51, 54.5, 58 (650B); 61.5, 64 (700c)  
**Color:** Homer Blue



**The Sam Hillborne is essentially a Homer with more muscle and grit and stubble. When somebody comes to us for a bike, it’s the first bike we think of because it does so much so well.**

It’s the bike to get when you want equal access to road and fire trails, and the option of road touring with up to 40lb loads. Sam’s

cantilever or V-brakes make fendering easier, and swallow a little bigger tire, too.

It’s not a mountain bike, but a skilled rider on a Sam with chubby knobbies can ride into the boonies and never come home.

In the middle sizes, Homer now has 650B wheels, and Sam has 700c. You’ll run into

those who vehemently defend one size over the other, but we like them equally, and did that just to differentiate them.

Sam is a hair stouter, so we give it more burly points than Homer, but the Sam and Homer are 95 percent functional clones, and you can pick by color or brake type.

**Frame, fork, HS, BB:** \$1,400  
**Typical complete bike:** \$2,800  
**Size, wheels:** 48, 51 (650B); 55, 58, 62 (700c)  
**Color:** Black, Sage, but check again later,



**The Cheviot (“chevy-uh”), named after the world’s best sheep, is a Country Bike like Sam and Homer, but is easier to get on and off and stand over, because it has a diagatube instead of a top tube.** The chainstays, longer than Sam’s and Homer’s, give the Cheviot a ride so smooth you can fall asleep on it. It has a longer top tube than the equivalent-sized

Sam and Homer, because we designed it for upright, swept-back handlebars, not drops. The Billie Bar (p. 23) is perfect. It’s for commuting, shopping, touring, and non-gonzo trail rides. The low step-over height means you can ride a bigger frame than you’d ride on a Sam or Homer, and we encourage that. Ride a 55cm Sam? Get a 60cm Cheviot with a bar and

stem that feel good and make sense. If your “boy bike” size is 51cm, you can easily ride a 55 Cheviot. Most Cheviot riders already have a non-mixte, then they get the Cheviot and it often becomes their main bike. Read more about guys on mixtes on the next page. (They’re just as good for women.)

**Frame, fork, HS, BB:** \$1,400  
**Typical complete bike:** \$2,800  
**Size, wheels:** 50, 55 (650B); 60 (700c)  
**Color:** Old Blue, Sage

## MEN & MIXTES

In the American 1900s and until recently, bikes without top tubes were for girls and women who wore dresses, because without the top tube in the way, the dress could drape down and not fly up in the wind. Parents bought Chief a boy’s bike and Missy a girl’s bike, and even after the ’70s bike boom, many young women—and later, adult women—wouldn’t ride a bike with a top tube.

From the late ’70s to 2000, racing drove bicycle design, so when more women started racing on the road and dirt, they rode “men’s bikes”—a cultural breakthrough, but with the unintended and unfortunate consequence of branding the mixte as a bike for non-athletic women. For the most part, that’s the reputation mixtes still have in America. This isn’t so in Europe or Asia, where streets teem with riders who don’t care about cultivating a sporty image on their way to work or the liquor store for a bottle of Scotch or gum.

Men On Mixtes (MOMs) aren’t as common in America, because adults basically didn’t ride bikes after about 1900. Then when the revolution came in the ’70s, riding was all about sport, and mixtes were still seen as girl’s bikes. Even in the 1990s it was almost impossible to find a high-end mixte in America (no matter how much you like your ’70s Peugeot, the statement stands). Two or three good ones were introduced in the early 2000s, and in the last 10 years the “lady’s

bike” reputation has started to change. Mixtes aren’t limited to city centers, but they’re especially good in town, where you’re getting on and off your bike all the time and cars are just a pain.

Usually MOMs have their sporty bikes to secure their athletic identities, and a mixte gives them license to relax and enjoy the cruising magic. Simply wearing normal clothing does the same thing to an extent, but the combo of normal clothes and a mixte makes it hard to get wound up. That’s not saying you can’t mellow out on a normal bike, just that it’s harder to tense up on a mixte, maybe because there’s no top tube so close to testicles.

### Structurally...

Mixtes lack the top tube that completes the triangle in a men’s frame, but a good bike designer can monkey with tube dimensions and clever ways to brace the frame so the mixte is up to the same tasks as a fully triangulated frame.

### Crazy speculation as to why some women resist the mixte

Does a mixte represent traditional female roles and men’s history of restricting women’s mobility with carriages, the passenger seat, bound feet, corsets, shoes they can barely walk in, and clothing more suited to the kitchen or bedroom than roaming Fangorn Forest? Is the mixte, with its less-sportsy image, a casualty of that?



*Will: Man-on-Mixte in action.*



**We introduced the Atlantis in the early 2000s as a bike for loaded touring, fire trails, cushy commuting on bad streets; as an all-purpose, all-weather bike for tires between 40mm and 53mm wide. It’s still that bike, but now better.**

It takes fenders and racks easily, and adapts to any fun or useful task. In 2016 we

introduced the Appaloosa as a near clone of the Atlantis, made in Taiwan and \$1,000 less. We had no plans to make the Atlantis in Taiwan, but that ship has sailed, so now we differentiate them by wheel sizes. The mid-sized Atlantises now have 650B wheels, and the equivalent-sized Appaloosa, 700c. They feel and ride the same, so the biggest

difference, honestly, is color: The Atlantis has always been Testors color #2135, a creamy blue-green strategically used for the interiors of Russian submarines to keep the entrapped men calm. It looks kind of like Bianchi’s celeste, but with a little care you’ll see the difference. We didn’t set out to copy anybody.

**Frame, fork, HS, BB:** \$1,500

**Typical complete bike:** \$2,900

**Size, wheels:** 47, 50 (26 in.);  
53, 56 (650B);  
59, 62 (700c)

**Color:** Russian Sub Green



**Through the years I/Grant have called most of our bikes “my favorite,” but I’ve said it more about the Joe Appaloosa than any other bike, because to me, it’s perfect. It’s great on tour, trail, or street, loaded or unloaded.**

The Joe’s chainstays are a few centimeters longer and the top tube, a centimeter

or so shorter. It feels and rides the same as the Atlantis, fits the same V-brakes or cantilevers, and has the same braze-ons. On some of the mid-sizes, the Atlantis has 650B wheels, while the Joe has 700c.

The difference in ride is theoretical, and it’s hard to justify a hard line favoring one over the other—already noted on the

Atlantis page, but it’s true here, too. Since the two bikes are so close, we’ll try not to stock both at the same time. The pull of the unavailable is always strong, but if this is the kind of bike you like, you can truly flip a coin. We’ll be out of Joe by July, and the Atlantis should be easy to get for most of the rest of 2018.

**Frame, fork, HS, BB:** \$1,400

**Typical bike:** \$2,800

**Size, wheels:** 48, 51 (650B);  
55, 58, 62 (700c)

**Color:** Silver, Old Blue



**Clem Jr. is an upright, fat-tire bike with lots of braze-ons and nearly unlimited capability and comfort.** It's the world's best getaround-towner, a touring bike, and a killer analog mountain bike.

It lacks the technological artillery of modern mountain bikes, but it's no less able a mountain bike for it. (See p. 15.)

You can build it up from a frameset, but generally Clems come complete, with parts we picked out for you. We are careful picking, and Clem is the rare \$1,600 bike with zero moanfully mediocre parts. We use the same parts on most of our way more expensive bikes and on our personal bikes, too.

Even though Clem, like the Roadini, is inexpensive for a Rivendell, it still gets our full shot of tedious, fanatical design and build quality, and a ride as good as any other bike in our line or the world.

It comes in two styles: L, kind of a mixte; and H, with a top tube.

**Frame, fork, HS, BB, SP:** \$900

**Typical complete bike:** \$1,650

**Size, wheels:** 45 (26 in.);  
52 (650B);  
59 (700c)

**Color:** Dk. Silver, Bronzey Moss

## THE PAST & THE CLEM

The best years for mountain bike values were 1984, 1985, and 1986. Mountain bikes were taking off, the early bugs were out, and competition and a strong U.S. dollar (against a weak Japanese Yen) drove prices down to dirt cheap. For \$450 you got a rock-solid but not awe-inspiring bike that worked great on trails, was good-to-excellent for commuting and town rides, and could be modified to work for long-distance touring. Best of all, it gave you access to places cars couldn't go, and didn't require a costume, shaved legs, or a training log.

Road bike industry kingpins were shocked in 1988, when three out of four new bikes bought in America were mountain bikes. With so many mountain bikes—driven by racing—variations and specialization were inevitable. After the 1990 Mountain Bike World Championships in Colorado were dominated by riders on suspension-fork mountain bikes, almost all major makers hustled to get Rock Shox forks on their 1992 models (it was too late for 1991). The motorcyclization of mountain bikes was kickstarted then and hasn't stopped.

The original three-year bikes have retired as trail bikes and been reborn as commuters and hobo bikes, with ratty paint and scavenged replacement parts. Their simplicity is a plus only in community bike workshops, where kids and rookies use them to learn basic bike mechanics, and can make them viable without torque wrenches or a surgeon's touch.

In the '90s you could buy one of these early mountain bikes, ready to ride, for \$70 to \$100. But now they're more than 30 years old and everything on them is shot.

A full resurrection costs \$1,300 (parts, labor, paint), but you'd still have a 30-year-old bike. You're way better off with a brand new and better Clem Smith Jr.

### Clem's such a good mountain bike!

The Clem is as solid and fundamental as those mid-'80s mountain bikes. Like them, it uses organic suspension, the kind that kicks in when you walk, run, or jump off a boulder—you flex at your ankles, knees, hips, elbows, shoulders, and wrists. Of course it works great: Your body is more finely calibrated than mechanical suspension, so it automatically adapts. You'll become a better rider on a Clem, more aware of the terrain and your own abilities. Besides/anyhow, unless you're trying to beat your fellow human, you don't need hydraulic shocks to muffle a dirt bump. A long-wheelbased, high-handlebarred, blimp-tired Clem is ready for most of the rideable earth.

Either style Clem is a good mountain bike, but surprisingly—because it looks like a girl's bike—the Clem-L has an edge. When you're pedaling up a steep hill and grind to a halt and spread your feet suddenly and wide to keep from falling over, there's no top tube there to bonk your yoo-hoo. On steep descents, the lack of a top tube lets you bail more easily. Even if you ride all the way, it's good to know you *can* hop off in a flash before you crash. As a bonus, the swoop tube lets you slam the saddle all the way down, so you can ride a bigger bike. Or you can buy the same sized L as you would an H, and a rider even six inches shorter will be able to ride it with the saddle slammed. The Clem-L fits just about everybody. Only a handful of bike shops in the country would consider it trail-worthy, which says more about the state of bike shops than it does about the Clem.



*Friend, former Rivendell employee, birder, and fellow photographer Vaughn in his white trainers.*



## MEASURE YOUR PBH

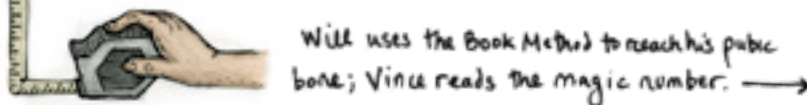
Pro road racers ride their handlebars three to five inches below the saddle, which pitches them forward and puts a lot of weight on their hands. Then they cross the finish line and pop up like Jacks-in-Boxes to find relief, and no wonder: People didn't evolve to continuously bend forward at the waist while exercising. Racers do it to conform to their machines and get aerodynamic. There's no other sport or natural and healthy physical activity that requires it, because it's hard to exert yourself comfortably when you're contorted. Most of the world's riders have figured that out and sit up a bit.

### It's easy to get a comfortable riding position on a Rivendell

It starts with a frame that makes upright come easy, and upsloping top tubes, extended head tubes, and extended fork steer tubes all contribute. But there are less obvious contributions by the seat tube angle and bottom bracket drop, too. (We won't discuss them here.)

Get the right size bike—it's easy to determine with an accurate measurement of your pubic bone height (PBH). You'll need a metric measuring tape. Then do this:

1. Stand on a hard floor in sox or bare feet, feet a foot apart.
2. Stick the tape in a thin book, with the shiny silver thing at the end folded over the cover. Jam that against your pubic bone.
3. Have a friend read the tape on the floor. Repeat three times and go by the highest number (you can't push past bone).
4. Once you know your PBH, all the stars in the universe align, and the right sized Rivendell is pretty much a *fait accompli*.



## FRAME SIZING



| ROADINI            | 48 | 51   | 54   | 57   | 61   |  |
|--------------------|----|------|------|------|------|--|
| max. standover ht. | 74 | 76   | 82   | 84.6 | 88.6 |  |
| min. PBH           | 76 | 77.5 | 83.2 | 85.7 | 90   |  |

| HOMER              | 47.5 | 51   | 54.5 | 58   | 61.5 | 64 |
|--------------------|------|------|------|------|------|----|
| max. standover ht. | 75   | 78.5 | 81.5 | 85.3 | 87   | 93 |
| min. PBH           | 76.5 | 80   | 83   | 85   | 89   | 94 |

| SAM                | 47 | 51   | 55   | 58   | 62   |  |
|--------------------|----|------|------|------|------|--|
| max. standover ht. | 76 | 78.8 | 83.3 | 86.3 | 90.5 |  |
| min. PBH           | 77 | 80   | 84.5 | 87.5 | 92   |  |

| CHEVIOT            | 47 | 50 | 55 | 60 |  |  |
|--------------------|----|----|----|----|--|--|
| max. standover ht. | 65 | 65 | 65 | 75 |  |  |
| min. PBH           | 71 | 74 | 79 | 84 |  |  |



| ATLANTIS           | 47 | 50   | 53   | 56   | 59   | 62   |
|--------------------|----|------|------|------|------|------|
| max. standover ht. | 75 | 77.5 | 80.5 | 83.5 | 87   | 90   |
| min. PBH           | 77 | 79.5 | 83.5 | 86.5 | 89.5 | 93.5 |

| JOE APPA           | 46   | 51 | 55 | 58 | 62 |  |
|--------------------|------|----|----|----|----|--|
| max. standover ht. | 74   | 79 | 84 | 87 | 91 |  |
| min. PBH           | 75.5 | 81 | 85 | 89 | 93 |  |

| CLEM H.            | 45   | 52   | 59 |  |  |  |
|--------------------|------|------|----|--|--|--|
| max. standover ht. | 74.5 | 81.5 | 88 |  |  |  |
| min. PBH           | 76   | 83   | 90 |  |  |  |

| CLEM L.            | 45 | 52 | 59 |  |  |  |
|--------------------|----|----|----|--|--|--|
| max. standover ht. | 55 | 55 | 55 |  |  |  |
| min. PBH           | 69 | 76 | 83 |  |  |  |



# WEIGHT

## An old rhyme that’s not true:

*A pint’s a pound the world around,  
Sixteen ounces makes a pound.*

It works for water at sea level, but not for everything else at sea level, and not for water anywhere else except at sea level. So a pint’s not a pound the world around, although 16 ounces still makes a pound.

Did you know that at sea-level a pint of gasoline weighs 12 ounces and a pint of mercury, 13.6 pounds? Few do!

Elevation affects weight because the higher up something is, the less earth’s gravity affects it. So anything weighs less on the 4,619-foot top of Georgia’s third highest peak, Dick’s Knob, than it does on top of the 196th highest, the 3,278-foot Big John Dick Mountain. Who names Georgia’s mountains?

At any rate and at any elevation, lifted pounds feel heavier than pushed pounds, especially if you’re lifting with weak arms and pushing with strong legs. When you pedal a bike you’re pushing it with your legs, and it’s rolling on almost friction-free bearings. It’s almost cheating—just ask anybody who’s ever

used an accordion-style drinking straw to push a full can of soup around the non-rolling way on a flat dinner table. For the same reason, it’s easier to push a car (in neutral) than to pick it up.

Weight matters in marketing because it’s a low common denominator selling point. But when weight is one of a bike’s key selling points, there’s probably not a lot else good going on with that bike.

Your bike shouldn’t have dumb weight, nobody’s saying that. But the smart weight that comes with strong frames, forks, and wheels; flat-resistant tires, reflectors and lights, racks, bags, and baskets, and the disaffected kickstand lets your bike bust out of its sporting-good shell and blossom into a miracle that makes your life easy and good.



Classic American parlor trick.



# WHEEL SIZES

## Smallest: 26-inch

The original paperboy and mountain bike size. It still works, but bigger diameter wheels roll over bumps better, and skinny 26-inch road wheels are like jumpy chihuahuas. The best use of 26-inchers is on small bikes that can’t fit bigger wheels (without sacrificing good design). Or for travel to countries that don’t have a booming bike industry. There, the 26ers still reign, for now.

## Middle: 650B (aka 27.5-inch)

A post-WWII favorite in France for touring bikes, but mostly dormant outside of France and a few pockets of Japan until we gave it a boost in 2004 when we introduced new rims, tires, and bicycles designed

for it. Then designer Kirk Pacenti pushed it onto mountain bikes around 2010. Now it’s the dominant size on mountain bikes, and the shortage of 650B tires is history.

## Biggest: 700c (fat ones are “29’ers”)

The traditional road racer’s size almost forever. Fat 700c tires (29ers) are about 29 inches in diameter, introduced in this country in 1999 by frame builder Wes Williams. Now 29ers are common on medium to big mountain bikes, because they roll over bumps better than smaller tires.

## Wheel weight & other issues

All else equal, heavier tires last longer. Thicker rubber and plasticky tube guards resists thorns, and thicker sidewalls resist sunlight and cuts. More volume allows lower pressure to protect rims, more spokes

make stronger wheels, and wider rims weigh more but hold tires better and stay truer.

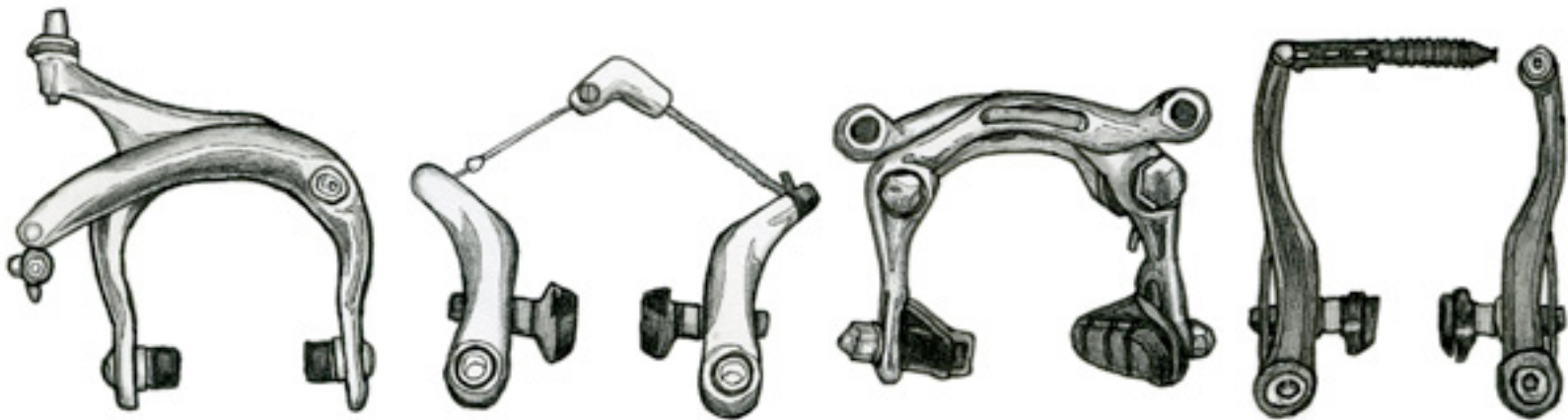
Lost in all lightweight obsession discussions is that heavier wheels can make an overreactive bike ride more fun and less stressful to ride, because they tame its hypersensitivity. Heavier wheels maintain their momentum better than light ones, too.

## Tire pressure and plushness

Tires with thin, flexy sidewalls are often touted as “plush,” but you have to compensate for their flexiness with higher tire pressure, because for any given tire pressure, a tire with a thinner, flexier sidewall will smooch more.

Another path to plush is to ride a bigger thicker tire softer. There are multitudinous paths to plush!

# RIM BRAKES



**Sidepulls** mount through holes in the fork crown and brake bridge, and come in various arm lengths—short, medium, or long—to fit skinny, medium, or chubby tires. They’re traditionally the favorite on road bikes, but with the variety available now, they’ve grown beyond the narrow road bike category.

*For Roadini, Homer, Cheviot*

**Cantilevers** were standard on touring, mountain, and cyclocross bikes until the late ’80s, when V-brakes took over on mountain bikes; and now their nemesis is disc brakes.

Cantilevers are great for tires 35mm and larger, and allow more room for fenders and mud. The surviving cantilevers are readily available and excellent, and we’re big fans.

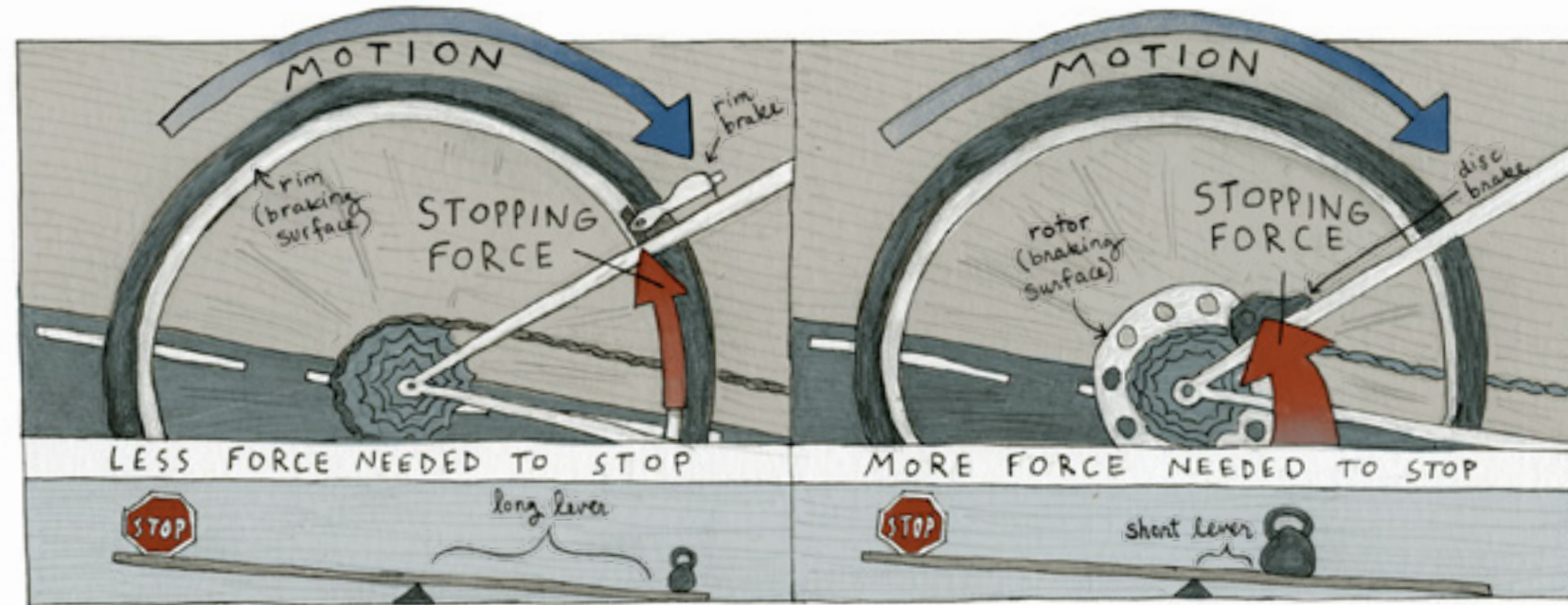
*For Sam, Joe, Atlantis, Clem*

**Centerpulls** reigned through the ’60s, then sidepulls took over and centerpulls napped until Japanese and American Francophiles resurrected them in the early 2000s, and welcome back! Centerpulls fit on any bike that’ll take sidepulls, and have a slight edge—just slight, no biggie—if you want to put a fender on a chubby tire.

*For Roadini, Homer, Cheviot*

**V-brakes** were developed for suspension frames that didn’t accommodate cantilevers. Now that mainstream mountain bikes use disc brakes, V-brakes are found mainly on mountain bikes either too cheap or too smart for disc brakes. We like V’s for tires 50mm and bigger. Cantilevers are good for those, too.

*For Clem, Joe, Atlantis, Sam*



**It’s convenient to refer to “rim brakes” and “disc brakes” as though they’re different, but mechanically, both use leverage to slow the bike.** Since a rim’s braking surface is farther from the center of the wheel than a rotor is, a rim brake has more leverage and power.

Hub-disc brakes compensate for their mechanical *disadvantage* with extra force introduced at the rotor and transferred to the fork blades, seat stays, and wheels. A frame designer accounts for the extreme forces with stouter frame tubes and extra bracing, and redesigned wheel attachments so braking forces don’t jerk the front wheel out. We

like the more efficient, less-brawn/more-brain rim brakes, which use less force and more leverage.

On dry or at least non-mucky trails, power isn’t an issue, anyway. Wheels skid easier on low-traction trails, and many riders find that rim brakes are easier to modulate.

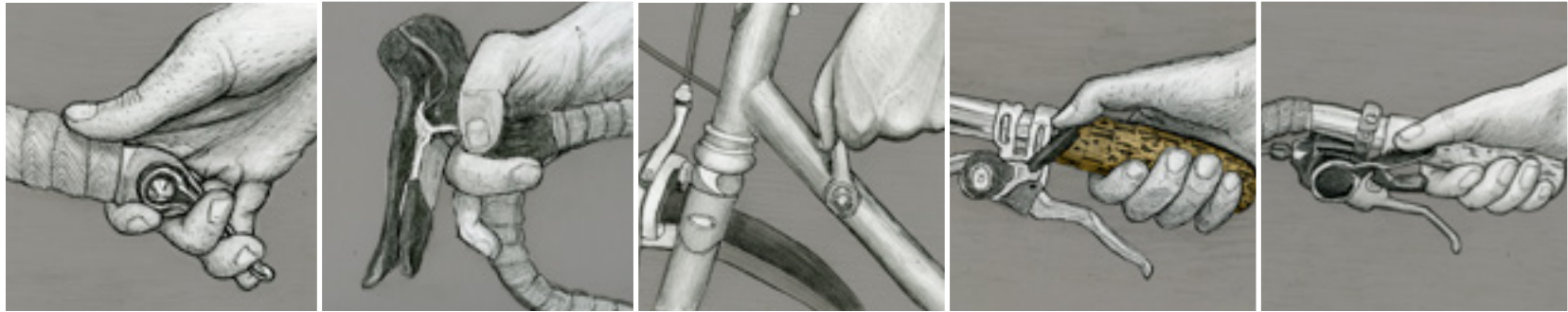
Disc brakes are an advantage in clay mud—which you can’t ride in anyway—because rim brakes can get jam-packed with it; or volcanic grit, which can abrade rims; or down sustained grades that require constant braking, where the rim can get too hot. You can navigate these extreme conditions with a rim

brake, but disc brakes have an edge. Some riders like them in the rain, too, but most arguments for discs in rain exaggerate the advantages.

Discs are winning the war, because people figure what works for cars must be even better for bikes. The thing is, cars and motorcycles are too fast and heavy for rim brakes. Bicycles are perfect for them. Let’s hope brake makers don’t completely sell out to motor-tech, so we can keep braking efficiently, far from the hub, with visible levers and beautiful pivots activated by strong, skinny cables. This is bicycle braking at its most basic and best.

# SHIFTERS

Bikes are easy to shift, and all modern shifters work well. Here are the ones we like:



**Bar-end shifters:** Always a good option. They’re convenient, and easier than thumb shifters if you have tiny hands or weak fingers, but don’t require either.

There are several models available, with indexing, friction, or both. It’s easy to mount them as thumb-shifters, too. Bar-enders are always a good pick. Bar-enders are never dumb.

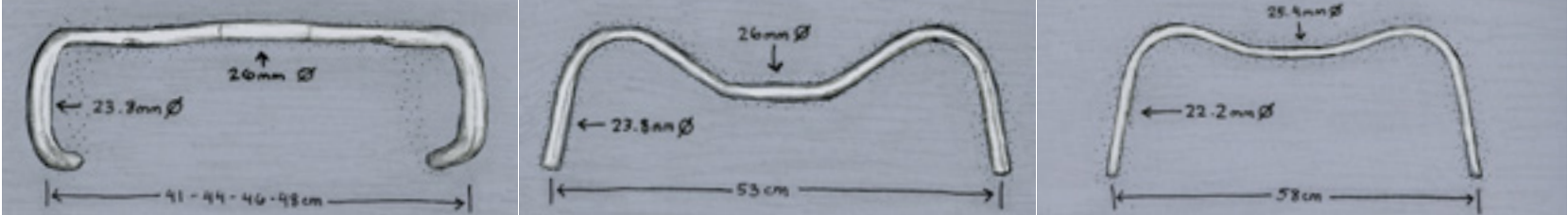
**Brifters:** If you feel too trad using bar-end shifters on your road bike, go for these. There’s no friction option, but they remove all skill from shifting, and sometimes that’s just the ticket. About half the Roadini builds get brifters, and Mark here has them on a bike or two, so we respectfully refuse to dismiss them like we did a few years ago.

**Down-tubers:** The ancient tradition for road bikes, but on our bikes, the higher handlebars make you reach way down. They’ll work, but it’s like intentional inconvenience or self-imposed abstinence. On the other hand, down-tube shifters are a good way to remove shifting temptation.

**Thumbies:** Always good, unless you have small hands or weak fingers. Several models available, all easy to use, and you’ll take to them right away. They’re great mounted near the stem on drop bars, too. We don’t assemble many bikes that way, because people don’t like to be pioneers.

**Triggers:** Like brifters, when adjusted they guarantee perfect shifts every time, and the levers return to the same place after every shift. If bar-end shifters seem too weird to you and you and/or your thumbs are too small for thumbies, get these. A trigger on the right, bar-end on the left makes sense, too.

# HANDLEBARS



## Drop Bars (two models)

Most riders like drops best when the top of the bar is three to five inches higher than the saddle (if you need them higher, you need a different bar). On our bikes that height is no problem. We carry two models—the Nitto “Noodle bar,” also known as the Mod. 177; and the Nitto 151, also known as the Mod. 151. The photo above is an amalgam. 5 ½-inch drop.

**Shifters:** Bar-ends, brifters, downtubers, thumbies up top. **Brake levers:** Road-style.

## Albastache

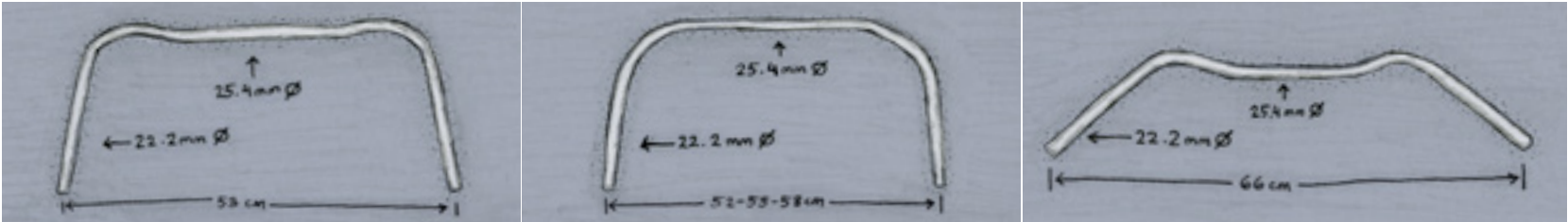
An alternative to a drop bar, with much less drop and a closer grip that doesn’t fold you over as much. Road levers mount horizontally, so the full height of the lever body rests comfortably under your hands. If you find drop bars a little challenging but still want the ergonomics and road bike brake levers, the Albastache bar is the way to go. 1-inch drop.

**Shifters:** Bar-ends are perfect. **Brake levers:** Road-style, but not “brifters.”

## Billie Bar

Like the nearly legendary Albatross bar, but with a full second hand position, less rise and drop, a hair more flare, and 3cm wider. Whether you’re starting fresh or ditching your drops, this is the bar we recommend first. Terrific handlebar! Billie was Will’s grandmother. 1-inch rise (or drop if you flip it).

**Shifters:** Inboard thumbies, bar-ends, triggers. **Brake levers:** Mountain-style.



## Choco Bar

Like the Albatross bar, but with a better next-to-the-stem grip—like the flat part of a drop bar—and a better forward grip, because the curvy part is flatter, too. It comes back more, but doesn’t rise as much. 1-inch rise (or drop if you flip it).

**Shifters:** Inboard thumbies, bar-ends, triggers. **Brake levers:** Mountain-style.

## Bosco Bar

Has the most hand positions of any bar we offer, most height, most comfort. It sweeps back a lot, so it needs a longish top tube. Lifesaver, backsaver, wunderbar! The best bar in the world for making a too-small and too-long mountain bike feel like heaven. Whopping 4-inch rise.

**Shifters.** Inboard thumbies, bar-ends, triggers. **Brake levers:** Mountain-style.

## Wavie Bar

Good for off-road riding, especially if you’ve been riding a straight bar and want something familiar but better. The Wavie Bar feels better because it sweeps back more. There’s a 40 percent chance that later in the year we’ll get one with a 31.8mm bar clamp area, to fit lots of modern macho mountain bike stems. All flat.

**Shifters:** Thumbies, triggers. **Brake levers:** Mountain-style.

## GEARING

Racers try to maintain a constant, high pedal cadence for maximum efficiency, so they benefit from more cogs. If you don't race, you can grunt out a climb in a high gear to build muscle, or whir your feet in a too-low gear to stave off lactic acid, or get off and walk to stretch your calves and Achilles tendons and work a few different muscles.

Let your pedaling cadence range from 40 to 110, whatever feels right. Don't count rpms, or keep track. If it feels right, it is.

### We recommend one to three chainrings

**One:** No front-shifting option, so your selection of ring size matters more. For hilly rides, 32t to 34t will probably be OK; for flatter rides, 38t to 46t should be fine.

**Two:** For level riding with moderate hills, try big rings from 40t to 44t and small rings from 32t to 36t. Shifting doubles is so easy, because the shifter operates like a light switch—all the way up for one ring, all the way down for the other.

**Three:** There's a modern notion that triple chainrings add unnecessary complication, but that's kind of b\*llshit. You still have the light-switch factor with the big and little rings, and then a dimmer mode between them. Shifting to the middle ring is no harder than hitting a door with a dart.

Get a 40t to 46t outer ring, a 34t to 36t middle, and a 24t to 26t small.

### Making sense of all those gears

With three chainrings and nine rear cogs, you have 27 gears (mathematically). With two rings and 11 cogs in back, you have 22. That's too many, but that's not the point. The point is simplified "range shifting," as shown in the picture over there. (The big and small rings can work with any of the rear cogs, but the recommendations there show "common reality.")

For decades, inventor-type bicycle gear geeks have been trying to develop and market a continuously variable transmission (CVT), with no discrete gears. For some that's been the Holy Grail since the '70s.

The thing is, you don't need a CVT because you were born with one. There *are* discrete gears in a bicycle drivetrain, but you fill the gaps with spin or grunt. Don't shift until you feel your feet are turning too slowly or fast for the gear you're in. Any gear you're in should have at least a 25rpm range.

When you think of pedaling as a way to fill gaps, 11-cog cassettes are no better than 8 or 9, and may be worse, because they just make you shift more. Don't make bike riding a constant-shifting activity; be a gap-filler!

When you order a bike, we make sure the crank makes sense.



## PEDALS

Clicking or strapping your shoe to the pedal makes sense when you ride a fixed gear (can't coast) and your shoe soles aren't grippy. That's how it was in the olden days, and it led to toe clips and straps.

Freewheels evolved in the late 1890s, and grippier rubber-soled shoes—for kids and poor people—first appeared in America in 1917. Adults weren't riding bikes recreationally then, so it was no big deal.

Now that you ride in a world bursting with spikey pedals, grippy shoe soles, and bikes that coast, the shoe world is your oyster. Keen or Teva sandals, Hush Puppies, galoshes, mud boots, Birkenstocks, and flip-flops all become riding shoes. Wear shoes for the weather, to make your feet happy, and to move around when you're off the bike.

# SACKVILLE BAGS

**Bags jump at bikes like fleas to dogs, landing on saddles, handlebars, racks, forks, and the frame tubes themselves.** One without the other is only half a thing. For a bike to be more than a mobile workout device, it has to be useful, and that means carrying stuff.

Our line of bags is called Sackville, the successor to our Baggins Bags, which seemed ideal for a line of bags designed by a company named Rivendell Bicycle Works.

But in 2011, the law firm that now owns all of Tolkien’s names from Middle Earth took the fun out of it, so we switched to Sackville—named not after the clan of coarse hobbits in Middle Earth but the world famous town in Nova Scotia.

Sackville bags are our own designs, and have benefitted from our more than 30 years of using bicycle bags nearly every day. They’re simple, with no hidden pockets, removable

dividers, or expand/compress features. You can get at your gear without solving a puzzle.

Compared to any other waxed cotton fabric we’ve used or seen, the fabric we import from that Land-o’-Bogs, Scotland, is more tightly woven, picks up less grime, and sheds water better. Since it’s a woven, natural fiber, it’s not as waterproof as rubber, vinyl, or plastic. But a Sackville will keep your gear dry in a 12-hour downpour. If a hard rain’s going to fall for 24 hours, put your stuff in waterproof stuff sacks before restuffing them in your Sackville.

Sackvilles are made for us in Connecticut to standards unequalled in the bike industry.



# A STUPENDOUS TRIO



## 1. SaddleSacks

The Medium SaddleSack is our most useful bag, good for commuting, camping, touring, and as a rear companion to the ShopSacks for shopping. You’ll use it every ride and it ought to last 20 years at least.

The top two straps go through saddlebag loops, and the lower one, around the seat post. It doesn’t require a rack, but if you want to eliminate all sway, put a rack under it and zip-tie down—underside lash points make it easy. That also makes it harder to steal.



## 2. BananaSack

The BananaSack is the *ne plus ultra* of toggle-closed banana-shaped seat bags.

It fits phone, keys, wallet, food, light clothing, a quart of ice cream, and mounts to saddlebag loops and seat post, or to the handlebar. There’s a stitched-on reflector, a place for a battery light, an inner sleeve pocket for your phone, and an ultra-genius toggle-and-ring closure you can open in a second with your eyes closed.



## 3. ShopSacks

There are three ShopSacks, each designed specifically to fit one of our three favorite Kentucky-made Wald baskets. You can put any of the ShopSacks in any of the baskets—the small ones will be loose in the big basket, the big bag will scrunch into the medium basket, but any basket can handle any bag.

We use ShopSacks for shopping, commuting, camping, travel. There’s a phone-key-money pocket on the inside. Our most-selling bags.

# MAINTENANCE

Several times a year somebody asks, “Hey man, if I buy a Rivendell and I’m not there in Walnut Creek, how do I get it serviced?” Any good bike shop will be thrilled to work on it. It’s handy to know a few things yourself, though:

- **Lube your chain at the first squeak.** We like Boeshield T-9, but any chain lube is fine.
- **After about 200 miles, re-snug the crank bolts, most likely with an 8mm allen.** Then again after another 200, and that should take care of it for a few thousand miles, or even longer. Check it now and then.
- **Replace your tires when they have cracked or sun-crisped sidewalls, deep gashes in the tread, or the center has worn flat.** YouTube can teach you how.
- **Learn to patch inner tubes.** We have a video on our site, and YouTube has dozens more.

## Do steel frames rust?

Theoretically, yes, but steel frames often last 50+ years. Paint protects the outside, and hardware and auto-parts stores sell lots of rust-combat sprays. Squirt through the brazing vent holes, top of the seat post, and water bottle bosses—all without taking your bike apart. When you

buy an assembled bike from us, we’ve already sprayed it. If you get just the frame, spray it yourself—it takes seven minutes. Easy!

**Chipped paint?** Unlike big companies, we don’t supply touch-up paint, because it usually dries up before it’s used, and we suffer enviro-guilt. In 1946, Sally Hansen founded a business that now makes nail polish that’s legendarily effective as touch-up paint. Highlight your frame’s boo-boos in lovely *Back to the Fuchsia* or, more subtly, with *Clear’d for Takeoff*. There’s a Sally Hansen color to contrast with any color, and you can score some wherever professional-grade nail care products are sold.



Thanks, Sally! ↑ Thanks, Mark →



# GRAPHIX



**Model names.** We pick names that don’t sound like another brand’s bikes, and lately have been gravitating to made-up people names.

**Colors.** We like solids and fine-grain sparkles. Our fully lugged frames always have cream head tubes and matching seat tube panels, a British influence, but

our head tubes are cream, not white, and our paint jobs are better. Frame and fork colors always match.

**Decals.** Downtube decals are six to eight inches long, positioned 13cm to 17cm from the centerline intersection of the head tube, and rolled slightly toward the top centerline for easier reading

from above. Seat tube decals are centered about 40 percent of the tube length down from the top. The letters are cream-filled to match lug detail and head tubes, and are bordered by a thin dark “inline.” The black inline prevents the cream from blending into the gold, and the gold halo is so the black doesn’t disappear on dark paint.

**Head badges.** All frames get metal head badges, not mere decals. To eliminate the possibility of a rivet or screw scoring the steer tube invisibly and to ease removal for repaints, they affix to the frame with double-stick tape. That’s more practical than classy.



### Returning a Rivendell? *Sacré bleu!*

If you own it for 30 days or less and you haven't wrecked it cosmetically or mechanically, send it back at your expense for a full refund. You assume any damage in transport. More than a month but less than two months, send it back for store credit. If you bought it from a dealer, deal with the dealer and they'll contact us.

Longer than that? There's Craigslist and eBay. Sorry you need the money more than the bike, but whatever your reasons for selling, used Rivendells always sell for a decent price.

### Other

We won't sell you a bike that doesn't fit or that's not right for you. We don't push add-on sales or try to upsell. Nobody's on commission, and we don't keep track of who sells how many bikes. If we're out of your size or model or color we won't steer you to another that's not the bike in your heart. No questions are dumb. If you ask us something we don't know, we'll Google it for you! When it comes to answering your email, you'll find us to be quick on the draw.

When you call during business hours, you won't hear a recording telling you to press the extension of the party you're wishing to speak to if you know it, or that our options have recently changed, so listen up. We have no options, nothing ever changes, but operators *are* standing by.



*Top, left to right: Harry, Roman, Corey, Dave, Mary, Jenny; Bottom, left to right: Robert, Grant, Spencer, Rich, Mark, Vince, Will*

### food / movie / book / ride / song

**Jenny:** beets, salmon, sandwiches / good will hunting / m train (patti smith) / hwy 1 on foggy day / hey goodbye (macha and bedhead)

**Dave:** tacos / back to the future / i-ching / bay trail / sleepwalk

**Will:** sweet potato chuckroast stew / the name of the rose / in cold blood / marin headlands at dusk / dying on the vine (john cale)

**Harry:** toscano salami / the empire strikes back / the gashlycrumb tinies / hamakua coast, hi / linus and lucy (vince guaraldi trio)

**Mark:** short ribs, brownies w/ice cream / the sound of music / the lord of the rings / through the woods in sweden / prokofiev's romeo and juliet

**Mark:** short ribs / wonder / dog man / mt. diablo and shell ridge trails / sleepwalk

**Grant:** grilled salmon, scrambled eggs with extra stuff in them / a brilliant young mind/ a prayer for owen meany / same as mark's / chimes of freedom

**Rich:** pork shoulder or short ribs / persona / history of the russian revolution / cedar breaks /bryce loop in zion / a love supreme (coltrane)

**Roman:** persian or mexican / anything from studio ghibli / delights and shadows (ted kooser) / marin and diablo trails / big cheeseburger and good french fries (blaze Foley)

**Spencer:** tum thai, chili relleno / la jetée, l'avventura, l'ami de mon amie, shadows, ladybugs, dekalog, the life and death of colonel blimp / just ride, a high wind in jamaica, midnight's children / golden gate bridge, mount diablo / born to love you (nedelle torrisi), baby birch (joanna newson), plunder (natalie prass), château perdu (cléa vincent), sutphin blvd (blood orange), lust for life (girls)

**Vince:** bbq ribs, asparagus / twins / the old man and the sea / shell ridge / anemone (bjm)

**Corey:** clam chowder in bread bowl / john carpenter's the thing / the book of the new sun / joaquin miller park / dancing in the dark

thanks to tim for the design and the patience thanks to evan, kim, and kate for proofing and suggestions

