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# THE RIVENDELL READER

A QUARTERLY FOR BICYCLERS

Issue No.



Spring 2005



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## Bluebells blazing, where the Aberdeen waters flow

**O**ur cavemen and cave women ancestors passed on to all of us the genetic disposition for gluttony, and to seek out sugar, salt, fat, and gluttony; and to engage as many mates as physically possible, because that had survival value when there were shortages of all those things about 50 thousand years ago. The cave folks who nibbled on leaves and roots and were celibate didn't reproduce. Now we can buy sugar, salt, and fat at the grocery store cheap, & there's mate stock a-plenty all around, so now the urge to seek these things is a curse. It's not enough of a curse to kill the species off, though. It might if we didn't have other survival mechanisms, but we have medicine, shelter, doctors who can take the fat out of your heart, and so on.

Our cave 'cestors also were genetically wired to look for ways to save energy whenever possible, so they'd have the energy to fight off other cavemen or wild animals. The ones who slowly and painstakingly made their club a work of art, for instance, didn't get it finished in time to use it to slug the attackers, and the gene for "taking the unnecessary artsy route" died with them.

That affects how we shop, and the kind of gear and tools we're attracted to. Everybody wants smooth, easy, fast, and immediate results. In the last ten years, material technology and manufacturing have advanced to the point where they're able to indulge every desire anybody might have, and marketing is sophisticated enough to create wants faster than the world presents needs. I recently attended an out-

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What to look for in a fork. Maybe not the only thing, but an important one.



### THE RIVENDELL READER

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door retailer trade show, and saw the proof.

Woven fabrics are seen as 10,000-year old technology, and the fabric predictors say that within a few years, maybe five, it will be replaced by non-woven films, such as Tyvek (spunbonded olefin, or polypropylene, like a priority mail envelope.) Within eight years we'll have photo-sensitive and temperature-sensitive fabrics that change with the conditions. Your windshell could be one color when it's cold, and another when it's warm. Or, your tent could be clear at night for stargazing, and darker during the day, for sun protection. Your panniers could be blaze orange when you're riding on the road and want to be seen by drivers, and fade to camouflage when you're in the woods and don't want to be seen by the cagey, binocular-wielding forest rangers.

You can read that and feel, on one hand, that you should eschew it; but on the other hand, *yeah, bring it on*. It's a constant wrestling match.

Sock makers make socks for every conceivable condition and gender. Socks have technical zones, now, about eight of them, each identified by a particular color, weave, thickness, pattern, and/or material that's been optimized for a specific part of the foot that it covers, because according to sock makers, each part of the foot has its unique needs. DuPont, Monsanto, Gore, and 3M all think they can solve sock problems that sock wearers didn't even know existed.

Wool content in socks is declining. Even in SmartWool socks, it's going down. The Light Hiker we sell as a cycling sock is 75 percent wool. It's been discontinued, and the closest equivalent sock is 71 percent wool. SmartWool would say to that, "Yes, but every part of the sock that touches your foot is 100 percent wool. All we've done is strengthen the sock and increase its performance by using other materials where they outperform wool. Hate to disappoint you, but it's actually better now." I want the lost four percent back. They were good enough before.

Every modern shoe maker has models that straddle humble & high tech, with round-toed tan and grey main colors spiced up with saffron, lime, and hot pink accents and the latest shoe upper, sole, support, and lacing technologies. Shoes have more technical zones than socks do, by far.

You should see the variety of wool underwear (called "base layers"). Everybody has them. To appeal to a newer and larger audience, they're modeled in catalogues and live at trade shows by stubble-faced, hip-hop listening snowboarder-type males and young, sophisticated women of independent means with iPods, to show that wool isn't only for earth mamas. Every maker is trying to out-plush the competition. The garments hang on the racks, and a salesperson says, "Here, feel it!" and you touch it and *can't* feel it, because it's too soft. I want wool

I can feel. I'm not saying *scratchy* just feelable, is all.

It may be in our genes to crave the tool that does the most and the fabric that feels the least. Manufacturers call it progress, and it is manufacturing progress. But be careful of the tools you select to do simple chores, because the more the tool does, the less you do, and the less you do, the more you become dependent on the tool. If you can buy music, there's less reason to make it yourself. That may be why, even though the world's population is 15 times higher than it was when Bach and Chopin and Beethoven were running around, there aren't many of those guys today. They get diverted into other fields early.

In most cases I want gear that's maximally made but not maximally advanced. Not minimally advanced, but not maximally advanced. It depends what it is. You can't be the world's top connoisseur of every little knick-knack that's a part of your life, no matter how little. But you can pick a few things that help you do activities you like to do, and go cheap where it doesn't matter as much.

On another note, Filson, the hundred-year-old U.S. maker of the world's toughest & warmest wool & cotton outdoor clothing and bags, was recently bought by Ralph Lauren, who announced that it will offer a "Lodge" line of Filson clothing, with a softer feel, presumably aimed for people who like the idea & look of rugged clothes, but want them to feel like an old friend right off the rack.

There are no good or bad guys in the Filson deal. Filson's quality may not suffer, and it could be that the old models remain in the line, indistinguishable from the pre-Ralph Lauren versions, but it is unlikely.

The ultimate destiny of outdoor gear manufacturers is to be bought out, and end up selling women's clothing and accessories. Burberry outfitted the Shackleton expedition in 1914, and now its biggest market is women in Japan. Eddie Bauer used to be an expedition outfitter. Bean, Orvis, and Patagonia are going that way, too. There's nothing wrong with that. Give us 40 years, we'll get there.

I hope you like this issue. I think it's one of our better ones, and I guarantee you the next issue won't be as good. I hope the carbon fork folks don't get mad. They shouldn't, but they might. I think they need to go back to the drawing board, that's all. We all need to go back to the drawing board now & then. The drawing board isn't jail or a dungeon, just a drawing board. —Grant

Probably nobody cares, but RR34's headline (Saddle me up my big white goose) and this issue's headline, are both from Bob Dylan songs. I just like the way the words go, and I'd feel bad if somebody thought they were mine. The song is *Highlands*, and the verse is:

*My heart's in the Highlands, gentle and fair / Honeysuckle blooming in the wildwood air / Bluebells blazing, where the Aberdeen waters flow / Well, my heart's in the Highlands. I'm gonna go there when I feel good enough to go.*

(Bluebells are flowers, & "blazing" means blooming, not burning. FYI.)

## Mail Letter of the Season

### Taking the Easy Way Out

I was in the masters program in interactive telecommunications at NYU about five years ago. We were talking after class about the fact that the old adage, "necessity is the mother of invention", is true only in times of war; the rest of the time, the reverse is true. Most technology is developed long before there is any practical need or use; for example, the fax machine was invented over 120 years ago.

When we do use new technology, it's not always the best solution; sometimes we use it because we just spent a fortune developing it. And now to the story:

In the early '60's, NASA quickly learned that pens do not work in zero gravity environ-

ments, yet astronauts were spending a significant portion of their orbital times in communications blackout, so a solution was needed. NASA commissioned the Fischer pen company to develop a pen that could work in space. Throwing themselves into the project, Fischer engineers believed the best solution was to create a pressurized ink cartridge that would push the ink out regardless of the influence of gravity. The concept required experimenting with a tiny piston within a chamber so air pressure could push the ink into the roller chamber; the constant pressure meant that the ink would need to be a different, slightly thicker viscosity so it didn't just flow out of the tip; and the new ink viscosity meant the ink had to have a different, more consistent pigment

grain size, while the roller (ball) would need to be etched with a microscopic "brain" pattern to deliver the new ink smoothly on tight fiber surfaces like smooth, thin paper (similar to air mail stationery for the same reason—weight). After three years and considerable expense, Fischer succeeded in creating a pen that would work in space; it soon became a "must have" item for American aerospace engineers.

The Russian astronauts used pencils.

—David Regen

**What kind of pencils, David? We'd like to sell them.—GP**

## About the *Rivendell Reader* & How to Subscribe

(for first time readers)

It comes out 4x a year at best, even when we swear we'll make five. It's 40 pages at least, and usually more. We do our best to cover topics not covered in fancier publications, and since we have no paid advertising, the stories tend to be longer and more in-depth. As long as the total page count is divisible by eight, the printer can run it. Sometimes we can't fit everything into 40p or 48p, in which case we'll have a separate cover printed, which brings the page count to 44, or 52, and so on.

We have about 6,700 paid subscribers. Of those, about 155 have coughed up \$200 for lifetime subscriptions. We're maxing out our lifetime subscriptions at 200, so if you want to do that, don't wait another eighteen months.

Ninety nine percent of the photographs are taken within ten miles of where we work, and most are taken right on the spot. John shoots them with an Olympus Camedia 4mp digital camera. Most of the riding pictures or outdoorsy shots, I shoot with either a Voigtlander Bessa L, or, if I'm feeling devious, a Yashica T4.

The layout is all in-house, too. Good typesetters and layout people would be horrified at it, no doubt, but it's come a long way over the years, and I've given up paying somebody else to do it. There are just too many changes at the last minute, and it's just not worked out well.

But what matters most about the *Reader* is content. We try to have good both, and as always, try not to duplicate what you can read about bikes in the famous publications.

Attitude and tone matter almost as much as content, but we aren't as good here. It's hard to feel strongly about something and write about it directly and concisely (no long first-paragraph wind ups, for instance) and not come across as an arrogant, know-it-all jerk. I have a hard time with that. Sometimes I have a paragraph about as long as this one, and there are four points to be made. In a case like that, you can't really spend time telling a story about your grandfather.

Overall, the *Reader* is not bad. I'd rate this issue an 8 out of 10, and in the past four years, we've averaged a good 7.

Since we don't have advertising, we need people like you to actually pay for it. If the time you spend reading is pleasurable enough, and the contents are helpful or in any way enhance your appreciation of bikes, why not pay for it, to help it keep happening? Fill out this form, mail or fax it to us, or call, and we'll send you two back issues free, plus our catalogue, and on top of that, we'll give you a \$10 credit toward anything in that catalogue. That's a good deal.—Grant

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## Buffalo/Bison Update...and Chris Hoffer, Too

In RR34 we introduced a prototype bicycle, the Buffalo, designed and built for cyclers who weigh more than 350 pounds. We had a test rider, Chris Hoffer, talk about his experience on the bike (and a lot more—surgery, losing 101 pounds, and getting a girlfriend)—and mentioned that we'd pitched the concept and the bike to Dwan Shepard of Co-Motion, who has taken on the task. Here is the latest from both Chris and Dwan. —Grant

### Co-Motion's Dwan Shepard Says...

Over the past several months, we have been exploring the Bison— a super strong bike for riders who weigh 300 pounds or more—and we're going ahead with it.

Since 1988, we have built custom bikes specifically for cyclists who are far heavier than average. Our tandem experience is useful here. In fact, the Bison's frame design is based on our PeriScope. The big-tube, compact frame design is sturdy, has a low straddle height, and fits a wide range of rider heights. The Bison will have upright handlebars, with a drop-handlebar option, 26" wheels with very tough 26" tires, a wide gear range, easily accessible controls, capability for adding racks and fenders, and good components.

We'll use a heavy-duty tandem wheel set on the Bison with a DT-Hugi hub of our own design which features equidistant flange spacing on the rear hub. This enables the rear wheel to be built with equal spoke length and spoke tension on either side, dramatically increasing its load-carrying capacity. The Bison's fork blades were originally designed for our Mocha off-road tandem, which has proven able to carry incredible loads in harsh conditions, not just on tandems, but triplets as well. We're one of a few companies who actually build their own forks and as such we've been a fork supplier for many other bicycle companies over the years.

We realize that some Bison owners may not have ridden a bicycle for many years. The Bison's easily-adjustable telescoping seat post will enable a confidence-building period, in which the saddle can be set low so that both feet can be firmly planted upon the ground when starting and stopping. As you build confidence and strength, the saddle can come up for a more efficient position. We'll use a larger seat tube, and no slot in the frame to fatigue—clamping is accomplished with our unique stepped collars.

The Bison is not the first single-bicycle we've based on one of our tandem designs. Our Americano touring bike is also derivative of our tandem designs, using a lighter version of our tandem fork, tandem wheels and tandem-diameter tubing to make it better able to carry heavy loads for touring than any other bicycle. We've sold many Americanos to heavier people simply looking for an indestructible bike. The Bison will simply carry the concept further and will be appropriate for people of 300 lbs. and larger.

I expect the Bison will be ready in April, and we will have more Bison info on our website by the time you read this. It'll cost about \$3000 for a complete bike. If you'd like to order a Bison before we officially release it, I'd be happy to speak with you.

For your reference, here are links to our Americano, Mocha, and PeriScope models mentioned above:

<http://www.co-motion.com/Amerc.html>

<http://www.co-motion.com/Mocha.html>

<http://www.co-motion.com/peri.html>

### Chris Hoffer Talks about his Progress

Although it is snowing as I write these words in early March, Spring, and with it cycling, have nearly returned to Minnesota. As the Buffalo prototype galloped eastward in late Fall to another Rivendell member, I find myself without a bicycle. However, I have a plan to resolve this need and get back to cycling again.

The plan involves being a true Minnesotan, yoga, and taxes. Perhaps I should explain.

In the previous Reader, I recounted how the Buffalo prototype had been key in helping me recover from a cardiac event, and go from 422 to 321 pounds. Over the winter I continued my walking and lifting, but I needed something to fill in for the now absent cycling. But what to do? I did not want to spend the next four months holed up in the gym. As I pondered this dilemma, my gaze fell upon the snow drifts outside. The light bulb went on, and I decided then to embrace my true "inner Minnesotan". So I bought some cross country skis and headed off into the underbrush.

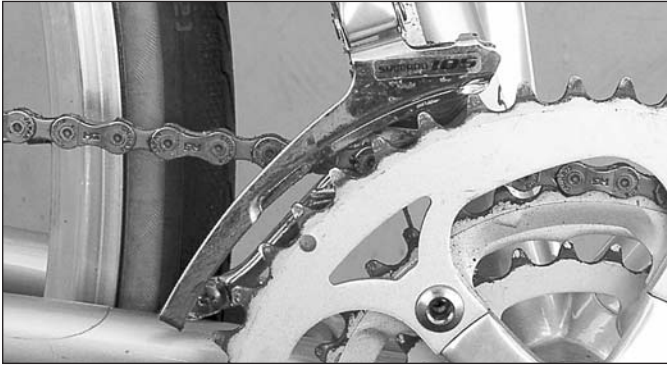
It would have been better if my inner Minnesotan had known how to ski. However, the two of us quickly fell into a routine. I would ski for a bit, fall down, get up, and repeat the process. Meanwhile, my inner Minnesotan would be cringing over what a uncoordinated yeti his outer Minnesotan was. Despite a rather steep learning curve, the skiing was fantastic exercise, particularly when I broke up the actual skiing part with what were in effect a number of push ups as I repeatedly got up from falls.

In addition to skiing, the other main addition to my fitness program over the winter was yoga. I wish I had started this the day I was discharged from the hospital. It is an excellent blend of relaxation and exertion. I cannot recommend yoga enough. It has helped me a lot.

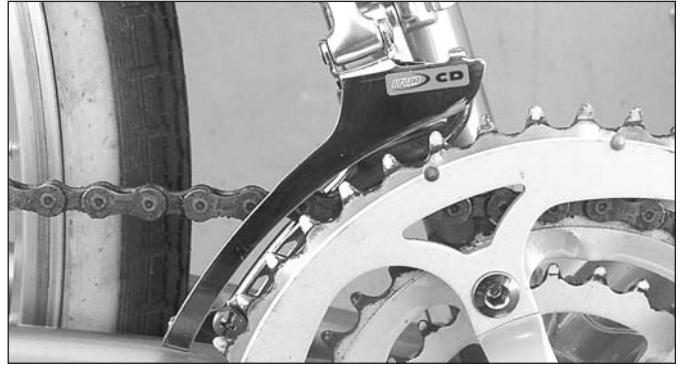
I am now a fairly decent skier, I am more limber than I have been in twenty years, and I am down to 279 pounds. Since this is only four pounds from the comfortable maximum weight for an Atlantis rider, with a tax return in pocket, I will soon be cycling again.

I am very pleased to see that the Buffalo, now Bison, will see production by Co-Motion. This bike can be the key element in providing a road to health for many people. At \$3,000, clearly not everyone who could benefit from the bike will be able to afford one. To put that in perspective though, my hospital stay in July cost \$48,000. That is sixteen Bisons. I would love to see hospitals, churches, civic clubs, weight loss groups, co-ops, as well as individuals, purchase these bikes. As people get more healthy, the Bison could then be passed on to a new rider. There is too much potential in this bike not to get it out to people who could benefit from them.

I would like to thank Rivendell for the opportunity to test the Buffalo prototype, my inner Minnesotan for some great skis, and Adrienne, who gives it meaning.



See how the lower outer cage on this Shimano 105 double derailleur move away from the teeth? It's not ideal, and neither is mating this non-ideal design with a triple, as we've done here. But you know what? It still shifts fine.



The IRD front derailleur is radiused to follow the teeth of 50t to 46t chainrings. It's a better design for smaller rings. I can't say it shifts way better, but we like to applaud such efforts, and at some level, it must work better. Anyway, we like it a lot.

## New IRD Front Derailleur for Compact Doubles

It's for the road compact double chainring combinations, usually 50x34, but it works for triples, too.

The difference between this and a normal double front derailer is the radius of the cage. Since this one's made for smaller chainrings, it curves (is radiused) differently, to better follow the tighter radius of a smaller chainring, for better shifting than you get with a regular racing double front derailleur. Those are designed for 53t chainrings, and when you slap on a 46 to 50, then they shoot off into outer space, rather than following the curvature of the chainring (as you can see above).

With the tighter radius cage, the derailer contacts the chain with a more persuasive part of the cage, so it lifts and pushed the chain with more authority during an upshift (small to big). Triple front derailleurs do it better still.

Where most two-ring front derailleurs are rated to a 14t difference between big and small ring (53x39, for instance), this one goes to 16t.

### Is that a big deal or not?

The extra 2t difference is not a big deal, but it is a good deal. A front derailleur that's rated to 14t shifts fine way beyond that; but one designed for 16t will go way beyond that, too.

### How much better does it actually shift?

It's hard to tell whether it shifts any better, since a Shimano 105 double shifts great well beyond its recommended-n-rated capacity. I'd guess that in a lab test, it would shift better, and if you "test" it on a bicycle with the idea that it might shift better, then you may be able to tell a difference. Let's just say that Ray Charles couldn't, though.

### So, is there any big deal?

Well, it's a big deal is that somebody is making such a thoughtful front derailleur, and not even copying Shimano. So often, manufacturers who are in a position to make neat new stuff don't do it until Shimano does it first. So, this is sort of a big deal.

I don't know who makes this derailleur for IRD. IRD started as an American company, maybe 12 years ago (Interloc Racing Design). Then they were bought out, and the brand is expanding to parts well beyond what the American machine-shop company produced. But whoever makes it seems to have done a good job of it, and the finish is as good as anybody needs it to be—right up there with Ultegra, at least.

I hope IRD's new owners sell a ton of these. If you have a bike with a 50t or smaller chainring, it'll work fine on it. We put it on a Saluki with a 46x36x24t triple, and it shifts great and looks good. The orange sticker (shown above as dark grey) peels off easily, by the way.

It comes only as a braze-on version, and you need a separate clamp if you plan to mount it the normal way. They're cheap and easy to get, we have them, and there's no compromise to using the separate pieces together, as opposed to a one-piece derailleur.

This was supposed to be just a new product review, but we know dang well that if you go hunting for these, you may not be able to find them right off the bat, and since we believe in them, we've decided to stock them (and the clamps). So if you want one:

IRD Compact drive front der. 17-122 \$45

28.6 clamp for it 17-121 \$9

Weight for the combo: 108g. That's fairly light.



## Interview with Gilles Berthoud, Bagmaker

**Gilles Berthoud is pronounced *zheelz bair two*, because he's French. His bicycle bags are the fanciest cycle bags to come down the pike, and priced to match. But there aren't many people who do what they do as well as Gilles Berthoud designs bicycle bags. May his tribe increase!**

**1: When and where were you born, and where did you grow up?**

GB: I was born on the 25 of July 1952 in Mâcon a small town in France in the Beaujolais vine country. Mâcon is about 60 miles North of Lyon. The first six years of my life I lived in a very small village close to Mâcon, but this house was quite old, without any comfort, and my parents had the opportunity to rent a flat in Mâcon in the new buildings built in every towns in the sixties. I lived here until I was 15 years old. After that, my parents built their own house in another small village, but I didn't stay long in this new house because I was studying 10miles from this village and was a boarder, so I only came back for the Saturday afternoon and the Sunday. After that I was 19, and I left the family's house.

**2: When did you become a bicycle rider?**

GB: When I was 12 years old, like every boys and girls I go to the secondary school and at this time there was no school bus, so the only way to go to school was walking or riding and then when the school was rather far from the family's house many parents bought a bicycle for their children.

I remember very well this first bike, I was very proud. It was a "Motobécane" brown and black with rear rack, fenders, lights and two chain rings with 4 gears. I was a small boy and the frame was really too high for my size and the saddle was closed to the top tube. With its 700c wheels, I can now guess it was the wrong bike for me but it was a wonderful way to go out of the house with a great freedom feeling and the first step of a long story between the bicycle and I.

When I was about 13 or 14 years old, my parents bought a television so I could watch the famous "Tour de France" and as many boys, I dreamed to become a great rider as Jacques Anquetil and Raymond Poulidor. I took a license in a racing team and started some races but for this, I need to have a racing bike and my parents had no money to buy it. No problem I put all my Motobécane in spare parts and give it a racing bike look (it had only the look but I painted it with the same colors white with black squares than the Peugeot bikes of the Tour de France). I remember my father was very sad when he saw all the spare parts, he said I would never be able to gather all of them. But I was not fitted out for that and quickly stopped the races.

**3: What were you interested in as a child?**

GB: As far as I remember, I heard my parents having together very bad words for all and nothing, telling my sisters and I. "You are lazy, you will do nothing good in your life!!!!!!". In such a bad family context I can't have any goods reminds from my boyhood.

I was a rather quiet boy, and when my parents didn't give me any job to do, I made artistic draws, went fishing or riding. In fact, I was rather alone.

**4: And as a university student?**

GB: When I got my baccalaureate, I had to go to a high school for studying to be a mechanic, but once more my parents spoke about the money they have to spend for my studies. It was so hard for me, hearing that one more time, and I decided to stop studying and I look for a job. I was 19 years old and became a teacher. It was also the time I met my wife and her wonderful family. Her father was a cyclotouriste, and when I heard him speaking about the rides he made, I gathered the few money I had to buy a second-hand frame and some spare parts and, for the second time of my life, I built a bicycle, but it was a touring bike.

**5: When you were 21, what did you plan to do for a living? And how did that lead to your own line of bags? I heard somewhere that Salon bought TA and you bought Salon—the factory and the workers. Is that true?**

GB: After a year as a teacher, another year as a soldier I started working in the mechanical industry as a designer and I did this very interesting job during 5 years. During all this time I enjoyed riding more and more. I earned my living so I could gather enough money to buy a custom-touring bike. This one was very expensive, it was two months of my salary and I was waiting for this bike as if it was the most important thing I never had in my life. Unfortunately this bike was not as good as I imagined and it is certainly the reason why I decided to start my building custom bikes business in November 1977.

The bags business came later, in 1985.



Pierre Vernoux, Veronique Durand, Malhory Viollet, Gilles, Isabelle Sallin, Vernard Lassarat

I used to buy the "Sologne" bags for the bikes I built and this small factory's owner was an 80 years old lady and one day she told me she wanted to stop. I was very sad and I cannot imagine my bikes production with another kind of bags, the quality was so good! With this lady we had to find an agreement because she wanted to sell all the factory's departments (fishing; hunting; bicycling) and I was only interested to buy the bikes bags department. I found another guy who was interested by the fishing and hunting. One worker from Sologne came to work in my factory for five years and taught a young woman Véronique, the bags making

Now you know the truth about the bags and it has nothing to do with Salon (I don't know them) and TA.

**6: I guess I meant Sologne. It's been years since I heard that, and I never did notice the spelling. So, we're talking about the same thing. Anyway, are you the sole owner of your company?**

GB: Yes I am.

**7: How many employees do you have?**

GB: With me, we are six.

**8: Do you own your own building?**

GB: Yes and I am happy with it because

we have a large space (1400 square meters) and I love the small village of Pont de Vaux. It's so nice and quiet to live and work here.

**9: I have heard that in France, once you hire somebody, you cannot fire him or her. Is that true? If it is true, what do you think of that law?**

GB: The law is the law and we have to do with that. Yes, it is not easy to fire somebody but if you pay them enough you can.

**10: That doesn't sound like a great deal. Where do you get your employees?**

GB: All of them are living in small villages closed or rather closed to Pont de Vaux. Most of them have been working with me for now more than 15 years, and even if some time I recriminate against them, they are a part of me and all of them are nice people who work well and in the way I want, and always for the best.

**11: You use good material. Where do you get it? Is it French?**

GB: All the materials for the bags come from France. It is not so easy to find them because I try to work only with small factories, so that I can have the good information and advices about





Veronique at the leather press, top; and sewing a fine seam, right. As hard as it is to imagine, Veronique sews every GB bag herself.



the material I need. Many of these small factories are bought by bigger ones, which are here to do business and that's all. I bother them with my questions about quality so they don't like me too much. For them I am the worse man, I order only some quantities and I ask always for the best.

**12: Who or what inspires your designs? What other bag makers (bicycle or otherwise) do you admire?**

GB: I don't know from where comes the inspiration. When I think to a bag, I firstly see it in my head and take my pencil for a draw. About the other bags markers I don't take care, I follow my way and it is enough for me.

**13: How many bag designs did you inherit from SOLOGNE? How many of them remain in your line?**

GB: Three handlebar bags and four panniers are from Sologne, but they were really more basic and I added many little details in order to make them stronger and longer life.

**14: How long do your workers stay with you?**

GB: I think I answered this question.

**15: Yes, I see that you did—about**

**15 years or so. Do you know how to sew? Who trains your employees?**

GB: No I don't, sometimes I try but it is a real job, over more Véronique, the sewer, don't like at all when I try to use her sewing machine. When I decide to build a new bag I make all the draws and stay with Véronique to explain her how I want to have this bag sewed. She knows me for such a long time now than most of the time there is no thing to say, she looks at my draw while I seat in front of her, then she starts sewing and the new bag born.

**15.5: Do you design on paper or on a computer?**

GB: Now you know I was designer in my first job, at this time every body used to work with a paper pencil, a rubber and a drawing board, then I always work on the same way.

**16: Which countries buy the most bags? By percentage, approximately. I'm guessing France.**

GB: Of course France, Germany, United Kingdom, Swiss land, Japan and now it starts rather well with the United States.

**17: What is the profile of a typical buyer? Age, gender, experience, other interests...?**

GB: It is not so easy to answer, but of course they are all cyclotouristes, women or men and generally more than 40 years old. That is the true for France but for the other countries I don't really know because my bags and bikes are sold through the bikes shops and I don't know more about their customers.

**18: In 1990 (or so) you made a zipperless fanny pack for me. Do you still have the pattern? Could you make it again, for production?**

GB: I remember the story with this bag, we had a great misunderstanding so, I was happy to meet you at the Interbike in October 2004.

I had a look in our archives and found the sample we built, but up to now I did not find the pattern for it. But I will look for it and maybe we can make it if you ask for it again.

**19: Yes, and just for the record, the "misunderstanding" was not an argument or anything. When I started Rivendell, I faxed you five or six times, with no reply, and so I figured you had no interest, or couldn't read English, or something—and I had to get on with shaping up the business, and that**

was that. I'm glad we reconnected in Las Vegas at the bike show, and if you can make that fanny pack for us, please do. I don't know how many of our customers will want a fanny pack, but it's a unique design, with no zipper, and I like it a lot. On that topic, has anybody ever asked you to make a bag that you didn't want to make?

GB: About bags I don't remember to have said "no" one time, I always try to make what people want if I understand exactly what they are looking for. For the bikes, sometimes I say "no" mainly because people ask for the wrong bike for the use they will have, I remember a guy who wanted to cross all south America and asked for wheels with aluminum nipples and 32 spokes. I also say "No" when a very small lady or man want a bike with 170mm cranks; it so important for me than I can accept.

**20: Which of your bags are most useful for touring? For commuting?**

GB: Sorry I don't understand the word *commuting*.

**20.5: It means "riding your bicycle to work or school, whichever you go to." In French, I don't know it.**

GB: Sorry but in France I don't know anybody going to school or at work with our bags, all the people who buy them used them for touring. You know, France is not as Germany, here people don't think so much of a bike for a thing other than touring or racing.

**21: Which are your favorite front bags and rear bags?**

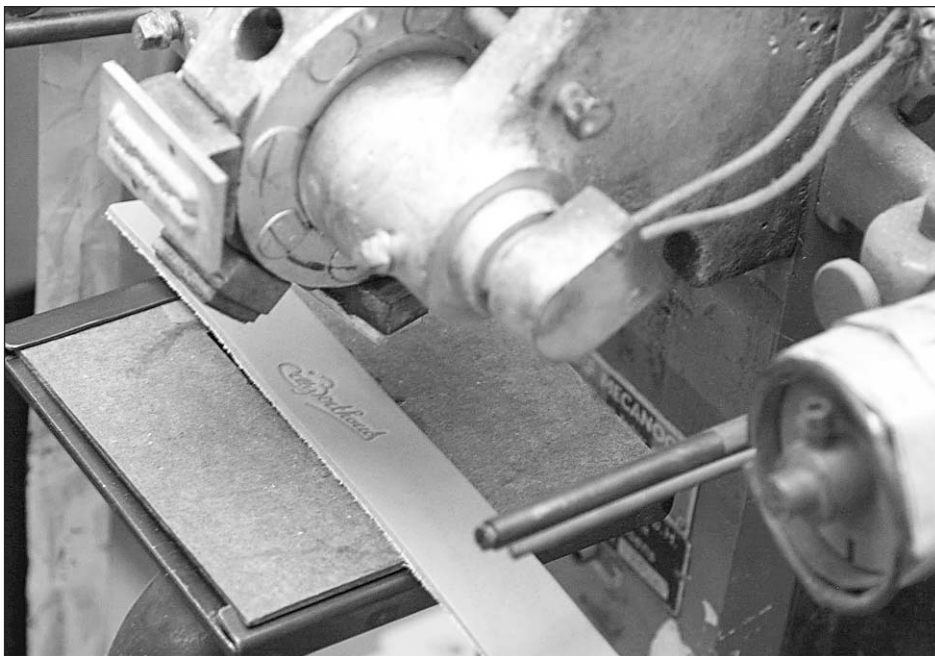
GB: My favorite bags are the front bags because in France we can't imagine a touring rider without a front rack and a bag on it. It is so comfortable to have the bag on the front, you have the map reader and all in front of you then it is so easy to take inside what you need when you ride. Over more when it is very cold outside, the handlebar bag is a good protection for the hands.

**21.5: I meant, which front bags are your favorite front bags, and which rear bags are your favorite rear bags? But I like the points you make about the front bags, and now I know that you prefer the fronts to the rears.**

GB: I can't say that I have favorite, they are all my child and it is not possible, every bags has his own use.

**22: Which bags were the hardest to design? Which are hardest to make? Which one does Veronique LEAST like to make?**

GB: I think that no bags are difficult to design because I really



Each bag is personally signed by Gilles himself with uncanny consistency. The personal touch.

enjoy to think about it. For me when it is too easy, there is no much interest.

Véronique doesn't like so much to make the too small bags, because it is more difficult to sew, but she also doesn't like when it is too easy to do. I think we have both the same opinion; we want to find an interest in our job.

**23: Your bags are so fancy, so nice and tidy. Do people use them as workhorse bags, or just as Sunday showoffs?**

GB: Our bags have a very long lifetime (may be too long) and are so useful, and that is why riders buy them, and certainly not for the Sunday showoffs.

**24: Do you think about bags a lot? When you see ANY kind of bag—a duffel bag, a woman's purse, or even a golf bag—do you think, "hmm, that's clever" or "I could do better than that!"?**

GB: Yes I do but I am mostly thinking about bicycles and racks. Sometimes I think about other kind of bags, but I would need more times to make them and also to know how to sell them. My son Julien who is living in Berlin (Germany) tells me he is sure there is a market for city bags for women and men in the same style than our musette but a little bit different adapted to the German style. I say OK Julien, we can work together on this idea, I can design and make the samples but you will have to find the customers. I have not much time for that and I am not very interested to have work outside of the bicycle business.

I love all the well made things, it can be admiring a knife, a table, a bag, a car, any other thing. I feel well when I see what some people are able to do, and I am not so proud to think I could do better than them.



Tubing destined for Berthoud's fine line of road and touring bicycles.

**25: How many bags are missing in your line? What are they?**

GB: On the first way I can say, if every rider have a touring bike as it should be, I think no bag are missing, but in fact, many riders have a kind of bike which is not really for touring because there is no rack on it. Regarding this problem I think to have a new bar bag fitting on the bar thanks to a special holder, but I have not yet found the good idea. On the other way, some riders want a bag from our own line but would like to have some little change as no rear pocket or a smaller size. .... and generally we can do it.

**26: If you had to reduce your line to four bags, which ones would they be?**

GB: I think I would choice: the handlebar bag GB2586, the saddlebag GB786B, the ear top rack bag GB587 and the panniers GB1500.

**27: Let's talk about the fabric. How water resistant is it? After five years of use, how should one re-waterproof it?**

GB: The fabric we use is a quite high quality cotton canvas (600 grammes by square meter). Originally it was used for covering the trucks and of course

must be extra strong. Now we ask to the factory who makes this fabric for our bags to add two processing, one for a best water resistance and the other against mildew. If we consider only the fabric we can say it is waterproof, but when we saw the bag we make small holes with the needle, it's why I prefer to say water resistant. In fact with such kind of cotton fabric every thread of warp and woof comes bigger when they get wet then, the holes become smaller. We use also a special sewing thread which becomes bigger when it is wet and then closes the small holes.

Generally nobody do anything on the bag, but I always give the following advice: Please put some waterproof grease on the leather it will keep it better for long and also it will protect the sewing thread.

**28: How did you choose the colors for the bags?**

GB: The Sologne bags were grey and green army. I don't like too much the green army and it was a very small seller. Some years ago I added the black color because I thought this black fits with leather in a nice way. I can't add too many colors because this fabric is quite special and mostly made for us. The manufacturer who makes it ask us a minimum order of 1000 square meters for each color.

**30: I know what that's like. How have your bags changed over the years in terms of quality, or design?**

GB: The design stays the same because it is our difference and it is this style customer's are looking for. In terms of quality I am sure it is the same than at the beginning of Sologne and may be it is a little bit better because we have a better leather quality, two new processing for the canvas and also our tools are better and specially the sewing machine.

**31: Talk about Canvas versus Nylon. You must prefer canvas, but is this an aesthetic choice, or do you think it works better?**

GB: The wedding canvas with first skin leather is very aesthetic but the main

raison we use this, is technical.

As I try to explain up here the canvas's thread comes bigger when it is wet and the Nylon's thread do not then, if there is not some thing to close the holes on the sewing line the water can come in.

Also a canvas is breathable and not a Nylon then even if some Nylon bags are absolutely waterproof it comes inside some moisture.

The way we make our bags is also very traditional and they can be repair everywhere in the word by a good shoemaker, I don't think it will be possible for Nylon bag.

Regarding the cotton and leather we use, we can also say that our bags are more ecologic.

**31.5: What do you mean, "the wedding canvas"? Is that what it is called? Why? It's an unfamiliar term to my ears. Wedding satin, wedding silk, maybe those, but not "wedding canvas."**

GB: Sorry I mean, when you put together as if they are married, canvas and leather the look is nice. May it is correct to say: The wedding between canvas and leather.....

**32: How many bags do you make per year?**

GB: Every year it is a little bite more, but it is about 120 bags per month.

**33: Do you have a family?**

GB: Yes, I have a family even if sometimes my wife says my family is my bicycle business.

We got married on the 30 March 1974 and Carine our daughter was born on the 15 August 1976. She is now working as a chartered accountant, lives in Dijon with her boy friend and enjoys her life. We hope to become grandparent soon. Her brother Julien was born on the 9 October 1980 and he is finishing his studies in Berlin. He has been learning in a high school named Politics science for three years and now after two years in Germany he shall become a manager in sphere of movies and culture. My wife Mary is a primary teacher in our village of Pont de Vaux.

**34: What are your goals, professionally? Where do you want GB to be in 5 years? 10? 20?**

GB: I have a real passion for my job and I don't think in terms of goals because I live for my passion and of course thanks to my passion I earn money. Of course every body tries to do that but it is for me not the most important thing a man have to do during his life. I hope I will stay in the minds as a good bikes and bags maker, and I think it is nice to leave something after us.

What GB will become in 20 years? I hope I will still be healthy and always riding. One thing is sure I shall stop working in less than 10 years. I want to live for me and have more time to ride and to do all the other things I love and can't do now.

**35: How could your company improve? Is there one thing you would change, if changing were as easy as blinking your eyes?**

GB: If by blinking my eyes I can change something I would like for everybody a coming back to the real value of the life, that is to say, the respect of each other, of the nature, the love of a well done work, and so on.

**35.5: Words to live by, Gilles, but I meant how would you change your company, if you could do that with an eye-blink?**

GB: Ok sorry, I would like to have some more time for riding long travels ; have more money for the company so I can make my own components because it is more and more difficult to found very good and long life accessories.

**36: I know what you mean. Sometimes I think, if things continue in the direction they seem headed, in thirty years we'll be riding injection-molded plastic bicycles that get replaced every year. The simplest things that were made so well 40 years ago, you can't even find anybody to make them now. Little metal things, stamped and bent and embossed, mostly.**

**What do you want your legacy to be?**

GB: I am not sure to understand your question, but if it means what my factory should became when I will be retired, I can answer that up to now I never think to this question.

I am 52 and my children will not take this factory and I will have to found somebody who wants to buy it.

**37: That is interesting and is the answer to another question, but what I meant this time was, how do you want to be remembered, say, in 50 years? If you don't think about that, that is fine. I don't think about it, and I don't think many people do think about it, but on the outside chance that you do, I want to ask. So, if people do think about you long after you are gone, what do you hope they think about you?**

GB: I hope they will think I was a right man who try all along his life to do his job as well as possible.

**38: There's a good chance that will happen. Nobody has put as much thought and quality into bicycle bags**

as you have, and probably nobody ever will. You have such variety, too, and the look is distinctive.

**I don't want to end the interview on a dreary note, talking about death, so let me ask you this: If we gave you a bike—say, it was for “making a great contribution to bicycle art and industrial design, with an emphasis on bicycle luggagery, and for bringing joy and pride and satisfaction and inspiration to cyclists by supplying them with beautiful bicycle bags,” would you accept the bicycle and ride it, even though you have your own brand?**

GB: Sorry I don't understand the question.

**39: I'm trying to give you a bike. Maybe a Saluki, but I will give you a bike only if you ride it; and I understand that you have your own bikes, so it occurs to me that maybe you wouldn't ride it. I would understand that, but if that is the case, that you wouldn't ride it, then I wouldn't give it to you. But if you would ride it, I would give it to you, but I'd have to know your pubic bone height first, to pick the right size. Please find somebody who understands English really well to explain this to you. It is not direct, but they will know. And then reply the same way, by email.**

GB: Great thanks for your idea but I am sorry, I can't accept this bike. Please Grant don't take that as a offense; I only say that because I don't do my job to receive any present from my customers. Nothing to see with the fact I have my own bikes, I can also ride on others.

I do my job as well as possible, I love it, and as you know it is a great part of my life and that is all. The best reward I can expect is making a good business with you for years.

**40: Besides your GB line of bags, you also sell nylon bags, fenders, racks. Talk about them some.**

GB: We sell other bags, less expensive than ours, for those who can't afford ours, yes. We have three types of fenders, in stainless steel, which is the most popular, and also metallo-plastic (plastic that looks like metal), and in carbon fiber. The carbon fiber ones are the lightest and thinnest, and fit onto bikes that won't fit the other fenders. The stainless models are the easiest to bend, but even so, we offer them in 700c, 650B, and 26-inch models, and in 40mm and 50mm widths. Our famous leather mud flap is made for these fenders.

Our racks are my design, as well, and I prefer steel over any other material, because it is strong, not too stiff, and if broken, it can be repaired easily. In the past we carried them in chrome-plated, but now it is too hard to get good chrome plating, so we have a powder coat finish instead. It is silver color, so it looks like metal.

**40: Then your frames. Are all of them fillet-brazed? And are they made in France?**

GB: Now, I can say that about 98% of our frames are fillet brazed but when I started building frames in 1977, I only

made them with lugs because it was easier to do. I prefer fillet brazed because we can do exactly the geometry we want and for my opinion it is more esthetic. All our frames are made in Pont de Vaux.

**41: What are your frame values, as a designer? What I mean is, what details or dimensions are most important to you, and do you include them in all models?**

GB: It is difficult to answer if I consider only the frame because the frame is only a part of the bike, of course the main one and even if I build only the frame I have to consider the complete bike. If I don't work on this way I am never sure to have a good result when all the parts are fitting on. I take great care about the size tubing, the seat tube angle, "la chasse", I don't know the English word for that, it is the result on the floor of the measurement in mm of the wheel size, the head tube angle and the bending of the forks.

**42: Price range for the frames and bikes.**

GB: For the frames prices from \$1300 to \$2000 and for a complete bike from \$3500 to \$6000

**43: How many do you make or sell per year, and to whom?**

GB: We build about 120 to 150 pieces each year and we sell to the costumers, to shops or manufactures

**44: Your favorite bike model?**

GB: I like in general all the bikes style but my life philosophy is doing that I prefer by far all the touring bikes.

**45: No 650B bikes. But you're French, and so, why no 65B? Are you reconsidering it, given the increased availability of rims and wheels, and so on?**

GB: I love the 650B bike and my first touring bike was a 650B it is a really good bike for touring but I think it can not be build in all the sizes if you want to have a good proportions for the bike. For small size I prefer 26" and for bigger sizes I prefer the 700C.

In the past we have built many 650B, and after that, the rims and tires were out of production so we have to stop production of this 650B.

Some years ago "la confrerie des 650" works with some manufactures to start again the 650B rims and tires and now it is possible to get this parts., but they sell through a small builder the 650B bike on a very low price, and on this price level it is IMPOSSIBLE for us to make the bike. Maybe you can understand better why I stay some years without making this kind of bikes. I am now starting to reconsider the problem for two main reasons:

First I have seen too many bad bikes from the "Confrerie des 650B," and I would be happy to offer something better. Secondly, thanks to you and some other guys it looks now easier to found some other ways to have rims and tires.

**46: A good plan is to get more makers using 650B, so the availability will increase. But, I am grateful to Confrerie 650B because they are standing up for a good wheel size, and bringing like-minded people together with it. So, don't be too angry with them. I think they were a strong**

**influence in our decision to go ahead with it.**

As for the wheel size and bike size and proportion question, I agree. I draw the line at 62cm, which may be higher than you draw it, but it is a matter of fork length and head tube length. If the fork is longer, the head tube will be shorter, and so a larger frame can look good. But 62 is the maximum, for me.

I would like to see 603 be available. It is halfway between 584 (650B) and 622 (700c), and would allow a "650B look & function" in the larger frame sizes. But it may be a difficult challenge. Anyway, on a lighter note, what is your favorite color for a bike?

GB: I think the color must also be choosing in accordance to the bike style. When we have a sporting light or racing bike, that is to say without racks or fenders except fiber carbon, I would prefer a flashing color (red - yellow ) On a touring bike with racks, stainless or plastic fenders and most of the spare parts silver anodized, I think my favorite is the black.

**48: What do you think makes a bike look good?**

GB: It is impossible to explain, the builder has the gift or not, it is a question of feeling, I think it is the same for a painting, many painters can make one but only a few are able to paint something about every body will say: "Oh it is great" , all the others make a kind of copy but it is still a copy and when you look at it, you can't say where is the difference but you feel the difference.

It is the same for a bike, all is important, no details must be put aside, all the parts must be in the same proportions, the frame, the stem, the wheels, the crank. The color must be in accordance with the bike style, the color of the saddle, and the color of the handlebar tape..

About all the modern bikes, it is not my cup of tea, I have no interest at all and I mainly think they are made for racing but thanks to the marketing and big promotions they are unfortunately used by peoples who don't need this kind of bike but they have most of the time no other choice because it is not easy to get a touring bike in the French shops. END.

*Gilles Berthoud bags and gear can be had at various speciality shops in this country—Harris, Peter White, and others. We offer a selection of the most useful (well, our favorite) bags, and may add one or two as time passes. You can see them on the next two pages. They come in both black and blueish-grey canvas, both with tan leather trim, but we're stocking only the blueish grey ones. They both look good, and some of the other vendors may have a better selection than we do. —Grant*

## Five Berthouds



### GB 280 Microbag

If you really have no business buying bags this expensive, but you just gotta have something designed by Gilles and sewn by Veronique, here's the least painful way, by far. It's supposed to mount to the loops of a saddle, and it does do that, but I like mine around the handlebar, where it usually carries a pocket camera, beanie, sweatband, and a little money. It's exceptionally handy there, goes on and off in five seconds, so you can put it on the saddle if you like, or take it into the store with you.

GB 280 Part No. 20-114 **\$38**



### GB 192 Small H-bar Bag

It's not that small, but GB makes a larger one and an even larger one. It's big enough for a large camera, clothes, and food, and is exceptionally convenient. It comes with bag support that you affix to the handlebar (easy), and there's a built-in quick-release (German plastic) that makes mounting and removing it a breeze. It will mount onto any drop bar.

Bar bags, as anybody who's ever used one will know and as Gilles points out in the interview, are especially nice in cold weather, since your hands stay windless behind them. This one has an automatic map case/precip deflector. It's sized just right for snacks, tools, wallet, camera, canine repellent, sunglasses, and so on.

GB 192 Bag with the rack, all you need: Part No. 20-115 **\$145**



### GB 640 Saddlebag & Rack

This combination could only come about out of frustration with existing methods of holding saddlebags and preventing them from wobbling. Personally, I think they're fine and good enough, but in the area of saddlebag attachments, I think Gilles has higher standards than anybody, and he likes this rig.

It seems to be a threadless stem with a clamp big enough to grab a seat post; and a rack for the other end. The rack is designed specifically for this bag, and it works PERFECTLY. The bag goes on and off in the time it takes to buckle or unbuckle the toe straps (included) that hold it to the rack. The rack is shaped to cradle the bag without interfering with packing or unpacking it.

The bag itself is gorgeous, with snob-impressing details that make me envious. Removable stiffeners give the bag shape, so you can noodle around with an empty (and thus, superlight) bag and look like you're just a neat packer. A good size for day loads—it holds about as much as a

Little Joe. The cleverly designed straps secure the flap and are long enough to hold extra clothing on top of it. Two side pockets for tools, camera...and there you go. Dimensions are roughly 11w x 6h x 9.5d. We buy, and therefore sell the bag and rack for it separately; but make no mistake, you need both. The combo ends up costing \$227, but it's a slick, smart, nice-looking rig.

Bag alone, Part No. 20-116 **\$150**

Bag Holder/Support: Part No. 20-117 **\$77**



### GB 799 Small Panniers

There are lots of ways to carry loads, and these small rear panniers are sort of a low-rider alternative to a large rear saddlebag (although they can supplement one of those). They mate nearly perfectly to the Nitto Funny Boy rack (a small rack with the side supports). In fact, the fit is so good that it wouldn't surprise me to find out that Nitto had these bags in mind when they made the rack. Coincidences like that don't just happen, at least not here.

Gilles designs the bags with hooks for 10mm racks, and the Funny Boy rack is skinnier than that. He says that's usually the case, and to just wrap the rack with bar tape. That would've been my/Grant's natural inclination anyway, but it's good to hear a high-class guy like Gilles endorse it. It protects the rack from metal contact, and quiets the ride some.

A perfect companion to these bags and that rack, is the sandwich bag, below. About 8.5W at the top, 6W at bottom x 9H x 4D, + small outer pocket.

GB 799 Part No. 20-110 \$150/pair



### GB 999 Sandwich Bag

It's usually called a "top rack" or "trunk" bag, but it is perfect for all of your sandwich needs. It'll fit ten fat ones without crushing, plus a few tools and a spare tube. In those times when you're not carrying sandwiches, a day's supply of spare clothing and snacks go in here.

It zips around three sides, has a stiffener on the bottom, and two nylon straps secure it to the rack. It's not quick on-and-off, but that just makes it harder to steal; and it goes on easy enough. Works with any rack we've ever seen. Actual dimensions: 6W x 5H x 10.5D.

Shown on our Nitto mini-rear rack/saddlebag support, but works with any rear rack we've ever seen. Blueish grey, with a reflective strip around the back.

GB 999 Part No. 20-111 \$95

## You Can Ride without Bags...But Why do That?

Just as wealthy women can never have too many purses, bike riders can never have too many bags. Bags make bikes more useful, good bags make bikes more attractive, and all bags take loads off of backs and out of pockets. Bags are fun to open, dig into, and close up again. They're like soft treasure chests. *Hey, whatcha got in there?* your riding buddy may ask, and even if he doesn't ask, he's hoping there's a snack for him in there.

Eventually you'll have several bags. Don't try to avoid it, because it's impossible. For small things you need to get at when you're on the bike, handlebar bags are best—obviously. Smaller bags for shorter hotter rides, bigger ones for colder longer ones. Gloves, sunglasses, beanies, cameras, and lip balm go up front. Food, only

on longer rides, and tuck it away deep, so you don't eat it too early or too often.

A bike without something behind the saddle looks funny to me. Even if you use a trunk bag or rear panniers, it's still good to lash a Burrito Wrap or even a wedge pack onto the saddle rails.

All bags have a recommended mounting method, but most bags, you can mount other ways as you get lazy or creative. That GB 280 bag up there has never seen the back of a saddle, which is what it's for, but works great on the bar. Mo here often uses two Hobo bags on his handlebar—one front (right), one rear (wrong, but it works). Banana bags and Little Joes can go on the saddle or the handlebar. Bags bring out your creativity and resourcefulness.

## Carbon Fiber Pet Food Bowl...Nanotechnology Version to Follow?



LEAVE IT...leave it...



OKAY, take it!

### Carbone Pet Bowl

The world's first carbon fiber dog food bowl—dubbed the CarBonePet Bowl— may not impress Brione or Fido, but it'll one-up your pet-owning neighbors or co-workers.

As the website points out, it's equally functional as a fruit or nut bowl, so primates can combine their passion for high tech with their obsession with eating. Rubber skids prevent sliding. Thoroughly tested, no sudden failures. 350g. \$65.

[splash-n-go.com](http://splash-n-go.com)



RR issues 1-11 24-127 \$10  
 RR issues 12-21 24-128 \$10  
 RR issues 22-25 24-129 \$10

### We're getting low on paper back-issues, but you can get them on CD.

I know the *Reader* has tons of room to improve, but it has gotten a lot better over the years, and you can see for yourself when you get any of these collections from about 1995 to 2003 or so. These are a good deal for you, and a great deal for us. There's good information here. The content is fine. The layout, always a weak point, isn't all that great, and the photos tend to be low-contrast, kind of lifeless. But it's always been about content, and in that way, not so bad. Anyway, these are by far the biggest profit item we sell, and they make up for things we don't mark up enough. Sometime that's just how it is.

## This Coupon is Worth 10 Rivendollars Before 6/4/05

Provided you spend it before July 4 on an order costing more than fifty. But, as you'll see when you look through the catalogue or the online webalogue, that's not so hard to do. Don't go getting stuff you don't want jut to take advantage of this coupon, but if you can find a thing or a few things you like and they total more than \$50, this will take the sting out of it. Mail or fax orders only. It's hard to monitor coupon usage on phone & web orders. If you don't want to cut this out, OK to photocopy.

Name \_\_\_\_\_

Address \_\_\_\_\_

Date \_\_\_\_\_





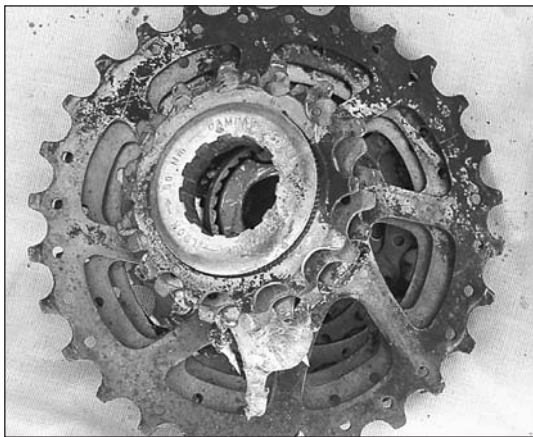
Dan holding his bike. It had a Nitto rack, some of which you can still see. The bottle cages are titanium. The seat stays came off, but are re-attachable. Curt could do it.



Chorus rear derailleur. The fire also turned it upside down, as this photo shows.



Chorus left crank arm. The right disappeared.



This cassette makes a good case for steel cogs, especially if you're prone to fires.



Campy Chorus rear hub. If it couldn't take the heat, it should've stayed out of the bike locker.

**Steel frame survives fire, sort of; aluminum parts don't, and carbon wouldn't have, but Dan didn't have any on his bike, so that won't be proved right here and now.**

Rivendell member Daniel Munch rented a bike locker at the local BART station, a safe place to keep his bike while he was at work fixing airplanes. Unbeknownst to him, the locker next to his had some kind of explosive/flammable materials in it, and one day last month, it just flamed up and exploded. The heat melted the plastic bike lockers, and did this to Dan's nice lugged steel frame equipped with Campy parts. While some call this "an act of God," others put the blame on the fellow (apologies to women, but we suspect it was a guy) whose drug lab blew up, or maybe was storing Georgia fatwood, lightable with a single match. The steel frame is a mess, and no doubt has suffered some ill effects from the overheating, but all that aside, it appears to be repairable, which is more than one can say for the crank and rear hub.

## Cane Creek's New SC-5 Brake Levers

Anytime a new non-integrated brake lever comes out—non-integrated meaning it isn't a combo braker-shifter—it's news, since that pretty much means it's intended to be used with bar-end shifters or down-tube shifters, which are on the outs these days most places but not here. But Cane Creek has done it (actually, Tektro is the manufacturer, and you can find these as Tektro levers some places, too). Here we compare them to our old favorite Shimano Tiagra levers.

As for the Cane Creekers, there's a model for normal to large hands, and one for smaller hands. Both share the look, size, feel, and one fancy feature of Campy Ergo levers, but without the shifters. The fancy feature is the Campy-style button quick-release, which lets calipers open more. So if you have side pull brakes, it's easier to remove or install a chubby tire on a skinny rim—which is the norm around here, and might be on your bike, too. No matter what kind of brakes you have, it will open them up more. This is the main reason we were interested in them. It's more convenient. And, if you like the fatter hood, you get that, too. If like the shorter reach of the compact model, you get that, too.

Usually brand-name aftermarket items like this are expensive. These cost \$45, about the same as Shimano Tiagras. That's unusual. Typically, when a new product comes out on the market, and it has a new feature or combination of features, even if those features costs diddly to make, the maker will charge to high heaven for it, because you can't get it anywhere else. But this time, No, and that's nice.

### Cane Creek Normal



**CANE CREEK NORMAL.** Both this and the compact look so much alike you can hardly tell them apart, but the tape tells the truth, and these are indeed "normal" in their reach.

Part No. 15-123 \$45

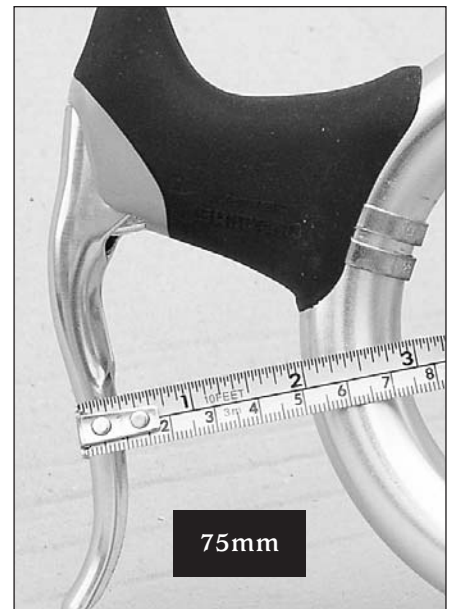
### Cane Creek Compact



**CANE CREEK COMPACT.** Reach is about 5mm shorter than on the normal lever (left), and the Tiagra (right). It's not so short that only dinky-handed folks will like it, though. Mark here, our fast guy, says they feel good to him.

Part No. 15-122 \$45

### Shimano Tiagra

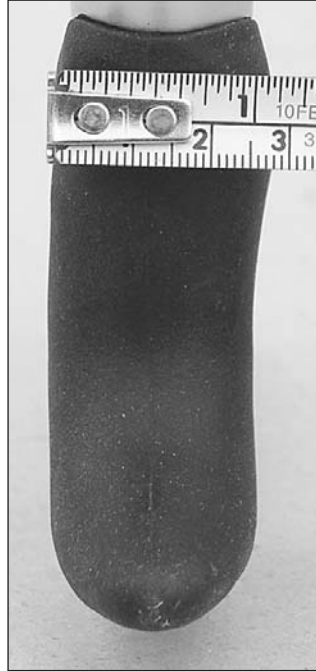


**SHIMANO TIAGRA.** Same reach as the normal Cane Creek. It fits almost everybody. Shimano has reach-adjusting features on its Ultegra STI lever, but not these. You can make your own. See page 22.

Part No. 15-091 \$48



CANE CREEK hood is fatter than the Shimano. More hand support, and a different feel. It might be hard to wrap dinky, glove-enclosed fingers around it, but maybe not.



SHIMANO levers feels fine to most hands, but a lot of riders prefer the extra width of the Campy and now, CC levers. Keep an open mind and you'll probably end up liking both.

## Your Hands Can Adapt to Anything

What you prefer in a lever depends on what you're used to. The old Campy Nuovo Record brake lever bodies were short front-to-back, skinny in width, and had deep, almost u-shaped tops that no non-infant's hand could fit into or on top of, but when that was the standard and everybody rode them, nobody squawked and other brake makers copied them. Then in about 1980, Modolo came out with "anatomical" hoods, which were still kind of short (they fit the Campy brakes), but were purported to have been developed by having Joe Pro racer squeeze clay on a lever body. They were okay, but not revolutionary. That came when Shimano lengthened and shallow-ed the top of the lever hood. That made everything right, and fortunately, others copied that. When Campy introduced Ergo several years back, the bodies had to be wider to fit in the mechanism. and lots of riders now prefer that. The thing is, you've got to be adaptable. Don't lock yourself in to just one lever style. It's nice to have a different tactile feel from bike to bike. I like the fatties and the skinnies. I'm ready for anything. —GP



QUICK-RELEASE ON. With the button pushed over to the right, the lever retracts more, feeding more cable to the caliper. This is a really good feature. It's not a "must have" by any means, but it's not a sissy feature, either. It's right in between.



QUICK-RELEASE OFF. The normal position, for riding. The q/r button is pushed to the right, and this side of the lever body isn't as deep as the left side, so the protruding button gets caught sooner.

## Cumulative Effects

How much wider do the calipers open when you push the lever button & activate the quick-release feature?

**4mm**

How much does the normal, caliper-mounted q/r on a Shimano dual pivot open up the brakes?

**2.8mm**

If you start with the same Shimano sidepull's barrel adjuster all the way up, flush with the caliper housing...and you screw it down, how much does it open?

**4.4mm**

If you do all three things together, how much opening do you get?

About **10.4mm** or so

You lose some because the pads don't stay parallel. Or maybe our measurements were off a hair...but we did take great care. But 10.4mm is enough to let a fattish tire through.

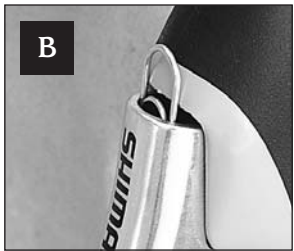
## How We Made a Brake-Reach Reducer/Quick-Release from a Common Household Item that We All Know & Many of Us Love

It would be imprudent of us to recommend it, with all the lawsuits out there and such. Some would say it's imprudent to even show you how to do it. But you know, life doesn't have to be that way. If your brake levers are too big for your hands and buying a new pair isn't an option right about now, all you have to do is stop the lever from returning all the way, and readjust the cable with the lever in the new position. Don't use poison, explosives, or razor blades to do it. We'd hate for this page in this *Reader* to be exhibit A in a lawsuit against us, so don't be so foolish as to make your own unless it's a matter of life and death, in which case there are about a million ways to do it. Your job is to stop the brake lever from returning all the way, and there's something within 15 feet of you, right now, that'll work just fine. We used a large paperclip. Here's how we did it, but please just file this away for when your life depends on doing it:



### Out, You Plastic!

Shimano Tiagra levers come with a plastic cable guides, whose sole purpose is to help guide the cable to the cable holder, during initial set-up. But it contributes nearly nothing, and has a habit of coming loose and rattling, so we routinely remove them on the bikes we build. Brian does, anyway. It does not make the bike unsafe! And if you leave it in, it gets in the way of the paperclip. Pry it out with a tiny screwdriver & throw it out.



Sometimes you can push the pclip down this far.



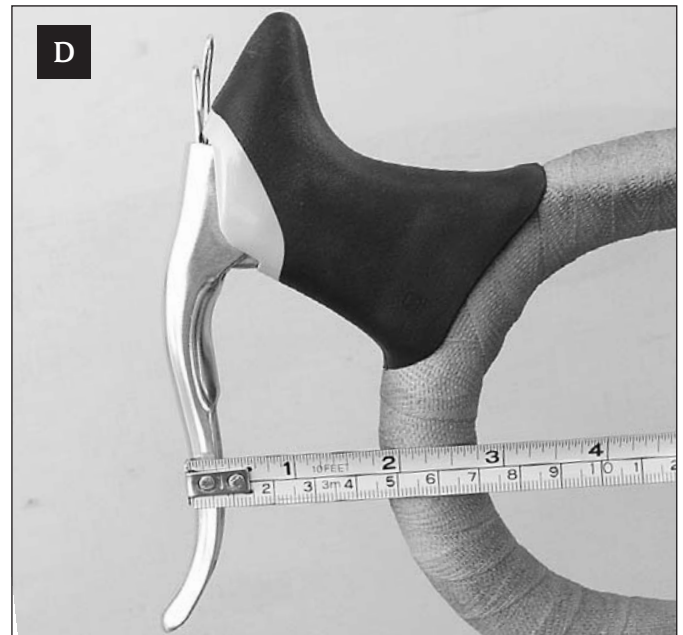
Here's a pclip in the new Cane Creek lever. If you already had the Compact model and still need more shortening, you could do it. But how short does it have to be? You need some room to apply the brake. Your hands shouldn't be that small.

### On there Being More than One Way to Skin a...

A paperclip is just what we had around. If it offends your sense of style, that's understandable. The point isn't to push the paperclip solution, but to show you how easy it is to interrupt the lever's return. Somebody out there has a better way, we know that for sure. If you invent something fancy & functional, show us what you did. You may not win a prize, your efforts may not get acknowledged, but as cyclers ourselves, we're always interested in creative solutions. So, send! You never know.—GP

### To Make a Home-Made Reach Adjuster/Quick-Release, You Need:

1. An aero brake lever. There may be some that don't work, but we've used Shimano Tiagra and the new Cane Creek levers.
2. A large metal paperclip roughly 1cm wide x 4.7mm long (about 1 3/4-inch).
3. Good judgement, good lighting, decent eyesight. Maybe a screwdriver.
4. A can-do attitude and a refusal to hold anybody but yourself accountable for any accident that may follow.



This paperclip reduces the lever reach by about 10mm. That ought to be plenty for anybody. Usually, it looks better to shove the paperclip deeper. We shouldn't even be showing you this ugly job. But it may inspire you to do better, even with another material. Pushing it deeper in keeps it from creeping out, too.

## Thumb Shifters on Drop, Plain & Fancy

### Plain & Cheap (\$15)

by RBW's own Brian Douglas

I did this to a tandem years ago and liked it, because it lets you shift while riding on the tops.

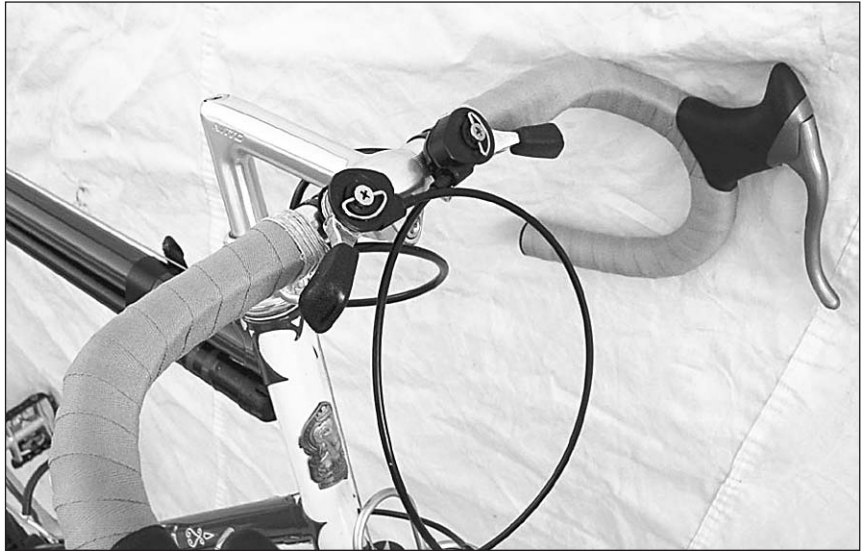
The diameter of mountain bars are 22.2mm. Road bars are typically 23.8mm, so you need shifters with bendable steel band-type clamps, as opposed to rigid, cast aluminum ones. I used part no.. 17-097, SunRace top-mount shifters, but any top-mount with a band clamp will do.

Bend the ears of the clamp so they'll be parallel after bending them to fit over the larger diameter road bars, and get longer clamp screws from a hardware store. I filed my clamps some, too.

I used the left/front lever on the right, and vice versa, so the cables exited the clamps toward the center of the bike. It looks better to me that way. I rotated the levers so they were slightly out-of-plane, so the cables wouldn't hit each other. Robert here snickered at that, and said I could have used V-brake noodles to exit the shifters. But I like the way it came out!

This idea isn't original. It's probably been done hundreds of times, because it works well. If you want something different, try it. The shifters cost just \$15, so it's not a costly risk, and the set-up works great. It inspired Mark to try a fancier way, see below. Cheap or fancy, they both work well.

SunRace Thumb shifters: Part No. 17-097 \$15



### Fancy & Spensive (\$160?)

by RBW's own Mark Abele

Brian's bike works great, so Mark got inspired and decided to put some on a bike using Paul Thumbies—machined mounts for Shimano bar-end shifters. Paul makes them just for this kind of rig.

Mark also used interrupter levers, which lets you have all the controls right there, if that means a lot to you. That seems to be a strong draw of STI and ERGO, but those systems lock you in, since the shifters and brakes are one part. This way, you get the convenience (again, if that means a lot to you), and the benefits of having separate parts.

What benefits? Well, you can angle the shifters and interrupter levers any way you like, and independently. If you get tires of this rig or just want to try another variation, you can do that. Both the cheap way, up top, and the expensive way, show here, have their appeals. Bikes are neat, because you can set them up so many different ways, and change things around on a whim, or just to experiment.

If you ride with a handlebar bag, you may find the interrupter levers get in the way. It depends on the bag. They work well with Candy Bar bags, the Hobo bag, and the Boxy and GB model bar bags, but there must be some bags out there that don't work with them.

Paul Thumbies (mounts for Shimano bar-end shifters): Part No. XX-XXX \$55



# Neville Chapsworth Delacroix on Bicycle Fork Design

by Neville Chapsworth Delacroix, Ph. D

Most riders, when they buy a bike, don't really look at the fork or ask questions about what it can do. They figure the bike maker has worked out the details, and if a fork is famous, popular and expensive, it'll be fine.

And it may be, and if it is, that's great—many happy returns of the day to both gentle rider and fork. But under the influence of truth serum, most of those same riders would say that they'd like their fork to:

1. **Fit a range of reasonable tire sizes**, to make the bike versatile. (It doesn't reduce speed, so why not?)
2. **Accommodate fenders**, just in case they want to ride on wet roads. (Where's the harm in that, huh?)
3. **Allow a wobbly wheel to pass through without rubbing**, so they could ride home with a broken spoke or a slightly damaged wheel.

Those three things are the elements of good design. And yet, 98 percent of today's high-end road forks don't do any of them.

If you doubt the importance of any one of them, consider that without the first, you're limited to skinny tires and smooth roads. Without the second, you & your bike get grimy when you ride in the rain; and without the third, a single broken spoke makes your bike unrideable.

## Defining Design

*Design* refers to the physical dimensions of the fork, and nothing else. It has nothing to do with materials, safety, failure mode, appearances, details, ride characteristics, or longevity. I'm not saying I'll never talk about those things; just that right now I'm going to focus on design.

### What's Wrong With Fork Design?—Racing's Influence

- **Aerodynamics.** The contribution of aerodynamics to street-level performance—and by that I mean anything short of certain competitive events—has been grossly over-estimated. Moreover, the features that make a fork aerodynamic—short blades and crowns that hug the tire—are responsible for most of the fork's design ills. Aerodynamic forks are too short and too narrow.

- **Skinny tires and short-reach brakes.** These are closely related. Racers ride skinny tires and never use fenders. That being the case, road bike brake makers have stopped making brakes that fit country tires and fenders.

Today, "road bike" has come to mean "racing bike," even though few who buy them race. There is little touring or recreational riding influence. Tourists are seen as nerds, and recreational riding is seen as what you do on your way to becoming serious.

### Is There Any Hope? Yes.

**Brevets and brevet riders.** Brevets are organized event-rides of between 200 and 1200km (say, 160 to 750 miles) that conform to set rules, but are non-competitive. Bikes for such rides have to be practical, because no outside support is allowed (when professional racing didn't allow out-

side support, bikes were much more practical). Most serious brevet riders are drifting toward higher volume tires (28 to 32mm, at least), and until recently, participation in the events required fenders, as a courtesy to other riders. The governing body has slacked off on that rule lately because so many participants owned bikes that wouldn't fit fenders! It's the forks, mainly. You can always route a fender over the rear brake, but it's much harder to jerry rig one on a fork that's too short.

Ultimately, if brevet riders had the influence of racers—meaning, I suppose, when their lot grows big enough or gets more press coverage—mainstream bicycle designs (and fork designs) will improve immensely.

**Education.** If riders get smarter about bikes, bicycle sellers and makers will have to, too. Which leads to...

### The Role of the Media

For most of the last hundred years, ending about ten years ago, the major cycling publications had on staff engineers and bike technicians who addressed technical issue, and served as watchmen for our best interests. France had Daniel Rebour during the '40s and '50s, and America had Fred DeLong, Frank Berto, Doug Roosa, and John Schubert. These writers and critics influenced public opinion and manufacturers alike, and parts improved because of it.

These days, bicycle and parts reviews consist largely of quick gush and witticisms peppered with references to popular culture. Lennard Zinn at VeloNews does a good job, though, when he addresses technical issues.

And then there's always the internet. Guys like Sheldon Brown, Jobst Brandt, and Peter White are furthering the cause of intelligent bicycle design and creating markets for better parts. And there are numerous websites and discussion groups that provide good information. There are non-famous people online, who contribute a lot, too. The best hope for better designs is more intelligent and more demanding customers.

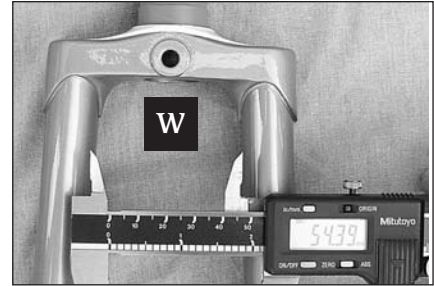
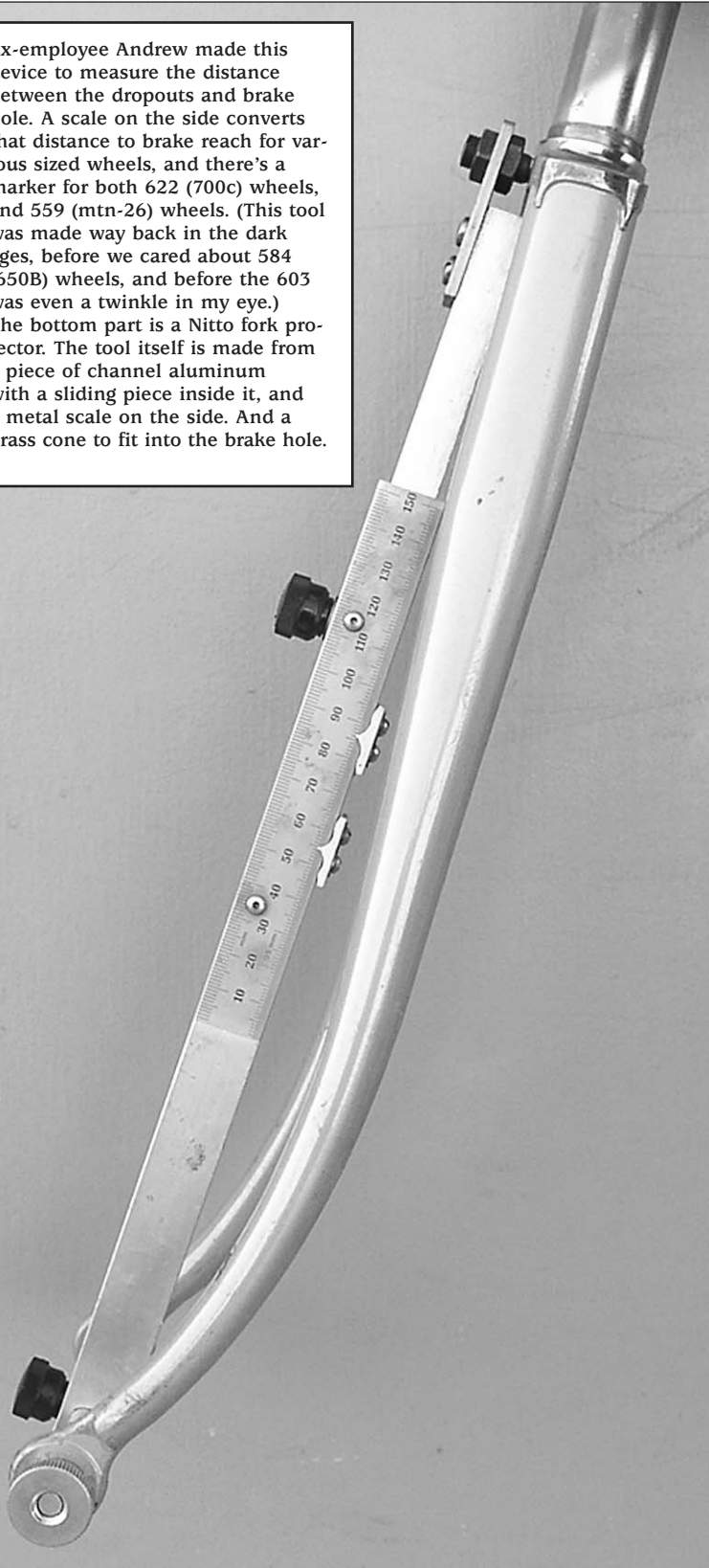
Bicycle shops in general—heaven knows there are exceptions, and if you own or work at a bike shop and are reading this now, you're one of them—but in general, they sell what the manufacturers provide, and they either don't know what good bikes are, or they don't have any influence, or they aren't providing any feedback, or they think any bike that weighs under 20 pounds is a good bike.

If you're interested in forks, understand the dimensions on the facing page there, then look at the forks on the pages that follow. —H.F.D., PhD.

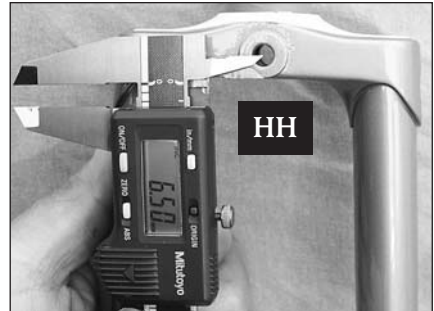
*Dr. Delacroix is professor emeritus of bicycle & fork design at the University of Willoughby in the Northwest Territories, and has authored several papers and books dealing with the topic. His personal collection of bicycle forks numbers in the thousands, and starting this summer, will be displayed at many of the biggest airports in the U.S. Also, he asked us to mention that his weekly television show, Focus on Forks, can be seen on cable. Check local listings.*

## How We Measured the Forks on pp 24-27

Ex-employee Andrew made this device to measure the distance between the dropouts and brake hole. A scale on the side converts that distance to brake reach for various sized wheels, and there's a marker for both 622 (700c) wheels, and 559 (mtn-26) wheels. (This tool was made way back in the dark ages, before we cared about 584 (650B) wheels, and before the 603 was even a twinkle in my eye.) The bottom part is a Nitto fork protector. The tool itself is made from a piece of channel aluminum with a sliding piece inside it, and a metal scale on the side. And a brass cone to fit into the brake hole.



**WIDTH** between the blades. More W gives you room for a fatter tire, or a wobbly one. We measured at the spot where a tire fits. The blades should be at least 15mm wider than the widest tire you plan to ride, and more if it's muddy. Mud builds up sideways.



**HOLE HEIGHT.** The distance from the center of the brake hole to the underside of the crown. Low holes leave more room for a tire. High holes put solid fork material in the way of fenders and tires.

What we dinna measure, that also matters, but just in a different way

*The curve of the fork.* The one shown to the left is a Flying Dutchman fork—a medium grade fork in its day (late '60s, I think). Nothing fancy. But look at the nice taper and radius on the blades. Carbon forks have a whole different look, and don't even attempt to look like this. We see plenty of carbon forks on steel frames. I don't understand that, but it's a fact. Why not steel forks on carbon frames? What carbon frame wouldn't look better with a nice bend in the fork?

# A Look at Forks with Regard to Clearance

(all but the Schwinn Varsity shown with a Ruffy-Tuffy (700x27); 686mm diameter.

We are nuts about forks—the way the dropouts attach, the angle of the slot, the blade dimensions, the look of the swerve, and as much or more than anything else, the clearance (is there enough room for a slightly wobbly wheel, and is there a balance of side and top?); and the crowns—which, by the way, a fork without one of those is like a king without one of those. The forks on the next few pages are a random sampling of steel and carbon, and we're looking at the three things—shown on page 21—that affect tire clearance. The steels range in age from modern to about 35 years old, and from cheap to expensive. The carbons are, as far as we know, all contemporary, because there are no old ones, and cost from \$200 to \$450 per fork.

There are other fork issues that we're not even attempting to look at here (strength, failure mode, proportions, appearance, and ride quality). Most steel forks weigh between 1.4 pounds and 1.9 pounds. Most carbons, between 0.8 and 1.1 pounds. The Schwinn Varsity weighs about 2.75 pounds, I'd guess, but I didn't take it off the bike to weigh it. Anyway, this here is just about clearance; but that's no small matter. —Grant



'90s Basso

(Full sloping crown, internal sockets). Great design. Low hole, good internal width, perfect reach for short reach brakes. Fenderable. Will fit a 700x35, easy. Italy.

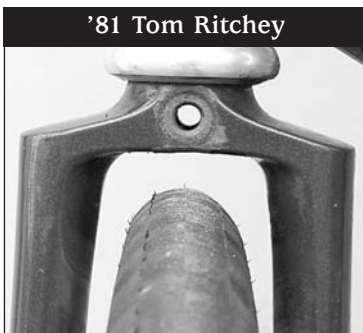
HH: 7.5mm; Reach: 49mm; W: 43mm

This is our RC-02 fork crown, with super low hole, good width for tires up to 35mm, easily fenderable. This fork is built for long-reach sidepulls, our most common style. This is really a fine fork and crown design. No kidding.



'04 Rivendell (Long reach)

HH: 6.5mm; Reach: 49mm; W: 44mm



'81 Tom Ritchey

This fork was state of the art in '81, and look at the clearance. It clears a 700x35, too. Ritchey frames were cutting-edge radical, but entirely smart. The hole could be a bit lower, but the 49mm reach makes up for it. Nice fork.

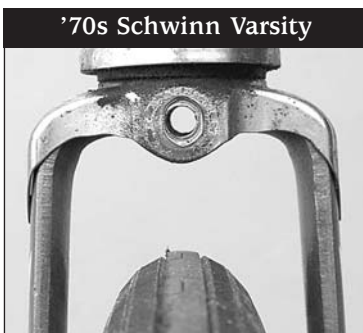
HH: 8mm; Reach: 49mm; W: 43mm

The unpainted fork has the same RC-02 crown as above, but is for short reach brakes--that's why there's less air above the tire than in the top photo. A low hole with 49mm reach means room for a 700x37 tire.



'03 Rivendell (Short reach)

HH: 6.5mm; Reach: 49mm; W: 44mm

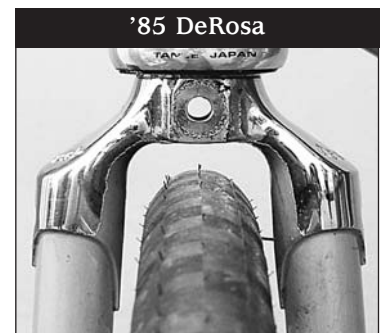


'70s Schwinn Varsity

If forks scored points only by clearance and aerodynamics, this humble one would win the top prize every time. The flat blades are solid forged steel, capped with a nice chromed crown-like thing. Shown with a 27 x 1 1/4-inch tire.

HH: 8mm; Reach: 65mm; W: 53.5mm

Earlier DeRosas had more clearance all around than this one, made soon after the early '80s aero craze. Too narrow, the hole is too high, and the forks are too short, resulting in a 46mm reach. Bad among steel forks, but still takes a fender or a 700x32.



'85 DeRosa

HH: 8.75mm; Reach: 46mm; W: 38.5mm





HH: 14.7mm; Reach: 54mm; W: 40mm

With a Nervex Pro crown. From 1969 or so. This one is stripped of paint, by the way. The hole is way too high, cutting into the tire room, but the reach is a good 54mm, so it'll still fit a medium-sized road tire.

An odd fork, with relatively short reach (45mm) and a high hole. You can't see it here, but the underside of the crown has been ground away to make room for a bigger tire. If the hole were lower, no need to do that.



HH: 10.2mm; Reach: 45mm; W: 45.5mm



HH: 6.5mm; Reach: 54mm; W: 54mm

'04 Rambouillet

Our RC-03 crown, 10mm wider than the one immediately to the left—you can see the extra space on the sides. We put the reach at 54-55, but the brakes can handle 57. Great clearance for tires up to 38mm wide. A smart design. Will it slow you down? No.

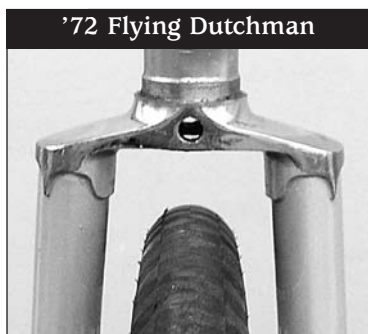
Nice low hole maximizes air on top of the tire, but the blade sockets are too close together, and a broken spoke will likely rub. They should've made it at least 3mm wider, and the blades at least 2mm longer (to bring the reach to 48).

This fork crown was designed shortly after the aerodynamic early '80s. That's why it's so narrow.



HH: 7.3mm; Reach: 46mm; W: 39.8mm

'95 Fuso



HH: 7mm; Reach: 49mm; W: 43mm

'72 Flying Dutchman

An interesting forged crown from a Dutch bike. Hardly any steel here, but it's forged and strong. Great, smart dimensions for a short-reach fork. You could fender it, easy. Note the low holes on the forged Cinelli crown, and this one. Proof that a good crown and fork design don't guarantee long-term commercial success.

A Masi Gran Criterium is the classic Italian road frame (good for things other than criteriums, despite the name). They've had a few different crowns over the years. This one has a good low hole and decent width, but I'd like longer blades (for more reach and clearance). Still, not bad, and one does not bad-mouth Masi (and get away with it).



HH: 8mm; Reach: 45.5mm; W: 41.5mm

'83 Masi



HH: 11mm; Reach: 48.5mm; W: 43.6mm

'72 Colnago

Fine for race tires, but it would be much better with a lower hole and slightly longer blades. The 48.5mm reach with a low hole would give a lot more clearance. Yep, next time, lower that hole. It even looks high, doesn't it? The reach saves it.

This is a terrific fork design—the best of the old classic forks, just edging out Dutch. The lowest hole (a forged crown, super strong, allows that). Good clearance up top, decent at the sides. No problem. This is a forged crown, by the way. The 50mm reach worked with either a short-reach or a long-reach brake (it was in the overlap zone).



HH: 5.3mm; Reach: 50mm; W: 42.75mm

'71 Cinelli

# Some Carbon Fiber Road Forks

(all shown with the same 700x27mm Ruffy-Tuffy as we showed on the steel forks)

**Alpha Q**



HH: 12.3mm; Reach: 44.5mm; W: 30.6mm

The short reach & high hole combo doesn't leave room for the tire. It's way too narrow, too. Widen blades, lengthen them, lower hole.

Lower the hole by 3mm, increase width by 9 to 10mm, and lengthen the blades by about 4mm.

Barely fits this 27mm tire, no room for anything bigger, and no tolerance for a broken spoke. Better than the ones on the left, but put some shoulders on it, make it wider, make it longer. It's too tight.

**Reynolds Ouzo Pro**



HH: 11.3mm; Reach: 44.5mm; W: 33mm

**Kestrel**



HH: 12mm; Reach: 46mm; W: 34.8mm

Too short, too narrow. It fits a 700x28, and that's good. But lengthen the blades so it'll take a 32, and increase blade separation. Lower the hole some, too. Make the brake reach 48. Too aerodynamic, and it crowds the tire and gives you back nothing for it.

The 2nd lowest hole in the bunch, but still too short & narrow. It fits a 700x28, but lengthen the blades 2mm to increase the reach to 48. Then it'll take a 32. Then increase blade separation 6 + mm so it can clear a wheel with a broken spoke, like the '81 steel Ritchey fork shown on p. 24.

**Ritchey Carbon Pro**



HH: 9.5mm; Reach: 46mm; W: 34.2mm

**Wound-Up Short Reach**



HH: 11.4 mm; Reach: 44mm; W: 37.8mm

This construction method has potential, since the crown can be made any width; and if there are issues with low holes in carbon crowns, they don't apply here. They ought to lower the hole 2-4mm, increase blade length 4mm, and even though there's almost decent width there, make a new crown and widen the blades by 4mm.

Then, no problem, nobody would squawk, and it would be a more useful, versatile, better-in-all-ways fork.

One of a few carbon fiber forks that can handle a broken spoke. It narrows about 5-inches below the hole, so a wide tire is a squeeze. To improve it, lower the hole 3mm, add 3mm to the blades (to keep the reach 48mm) and keep the gap between the blades wide all the way down. Not bad, though.

**Cannondale (Short reach)**



HH: 13.5mm; Reach: 48mm; W: 40mm

**Colnago**



HH: 11.3mm; Reach: 42mm; W: 35.5mm

Too short and too narrow, and the hole's too high. I think the U-crown is too rounded to lower it any. Fix that, because the roundedness gives you nothing, and the clearance is atrocious. Even if you never ride a 700x27, yotta be able to.

I'm sure there are good things about this fork, but the dimensions need help.

I'm not so attuned to the carbon fork market that I know where this one ranks on the prestigiousness scale, but it's at or near the top among forks shown. See the clearance gained by the low hole (compared to the Kestrel, which has longer reach, even). Decent blade width. Lengthen the blades 3mm, and increase the gap between the fork blades by 5 to 8mm.

**Profile**



HH: 8.4mm; Reach: 44.5mm; W: 38.4mm

**IRD Mosaic**

HH: 10.5mm; Reach: 54mm; W: 36.5mm

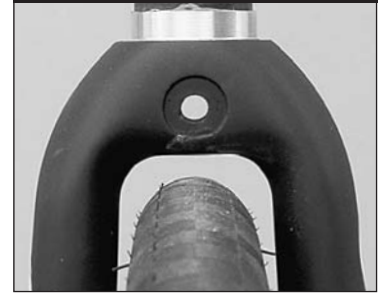
This fork is an option on Soma bikes—which are basically smartly designed low-priced tig-welded models for road, mountain, touring, and so on. It's the least expensive fork in the bunch, and certainly in the top four, design-wise. It has far more clearance than any other fork here.

Recommendations: lower the hole 1-2mm, lengthen the blades by 2mm, and widen the blades 5mm, and keep the width the whole length.

en the blades by 2mm, and widen the blades 5mm, and keep the width the whole length.

I believe Seven considers this a long-reach fork. But at 47mm, its reach is at the top of the slot for a long-reach brake, and not even quite at the bottom for a short-reacher, so I'd give it higher marks as a short-reach fork than as a long reacher.

This fork is designed to take a 700x28 with a fender, or a 32 without, and it'll do that. But to make it much better, lower the hole 1mm, make the blades 9mm longer, and increase the width by 7mm or so.

**Seven 5E**

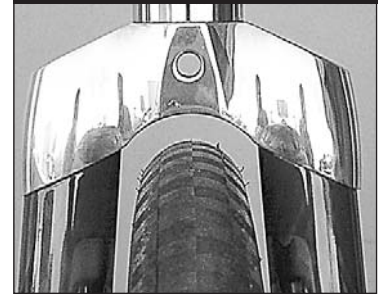
HH: 10.8mm; Reach: 47mm; W: 39mm

**Easton**

HH: 10.75mm; Reach: 44mm; W: 30mm

Holy smokes, this thorn-flicker is tight even by carbon fork standards. By now, anybody reading this ought to know the fixes. Put some shoulders on this fella and give the tire room to breathe, or even to wobble. Lower the hole 1.5mm. lengthen the blades 5.5mm, and increase width by at least 11 to 15mm.

Wound-Up makes this for long-reach sidepull brakes, so it has better clearance than the standard Wound-Up fork on the previous page, and is one of the better forks in this survey. Our suggestions, for what they're worth: lower the hole 4mm, make the blades 8mm longer, and increase the width by 8mm.

**Wound-Up Long**

HH: 13.25 mm; Reach: 52mm; W: 37.25mm

**Specialized C-3 Zerts**

HH: 9mm; Reach: 54.5mm; W: 46.3mm

This fork comes on the Roubaix model, and from a design perspective, it ranks right up there with the better steel forks. Specialized markets it as its "long reach" model, and it makes me curious about the short-reach model, which we don't show here. This fork easily clears even a 37mm tire. The low hole (just 9mm) and good top-and-side clearance—doesn't happen by a throw of the dart. No lucky fool designed this. There's nothing to squawk about, nothing to improve. Whoever designed it, good job.

side clearance—doesn't happen by a throw of the dart. No lucky fool designed this. There's nothing to squawk about, nothing to improve. Whoever designed it, good job.

This fork is whitish because it hasn't been painted. Okay: Great reach, lots of room for a taller tire. It should be wider, but it's wider than most are, so that's not bad. Easy to fender, and it has eyelets. Overall, a good design, the most reach of any, and tied for the lowest hole. If the blades were wider, so it could handle a 700x35 with a broken spoke, it would be great. As is, it deserves hard, thumping pats on the back for daring to go to 56 reach, which is just a millimeter short of the maximum reach of a Shimano long-reach brake (57mm).

**Cannondale Long Reach**

HH: 9mm; Reach: 56mm; W: 38.75mm

Before you make a fork out of any material, you should know where you want the material to be, where you want it *not* to be, and have sound reasons. If you explain your reasons with a swagger & a chuckle & the words "cool" or "hot," and point out that your fork is in lock-step with your competitors' forks, you fail. From what I've seen, most carbon forks are design flops, because (1) they limit you to tiny tires; (2) if a spoke breaks, you walk; and (3) fenders are impossible. They sell because carbon fiber sells, and customers assume that something so expensive must be designed well.

I asked ten of the makers about brake hole location, width, reach, and other design priorities or considerations. Five responded. Brake hole height isn't considered. Weight and aerodynamics aren't either, thankfully. (But why crowd the tire, then?) And the consensus is that as long as the fork works with a short-reach brake, it's good enough. But that range (39mm to 49mm) spans the difference between a D-minus and an A.

It's not our purpose to attack carbon forks, but to point out goofs and suggest specific improvements. Brake holes should be as low as the material allows, so you don't fill the space above the tire with material, which limits tire size and fender room. Next to the tire, the blades should be at least 42mm wide, so a wheel with a broken spoke won't rub them. Finally, the blades should be of a length that sets the brake reach at 47 to 49mm when a short-reach brake is used, and 54 to 56mm when a long reach brake is used—to maximize clearance. These changes might not affect sales, but the forks will be better. The long-reach Specialized and Cannondale are pretty good already.—GP

## Answer These Questions, Win Time-sensitive Rivendollars

- Which kinds of Reader stories do you like best? (circle as many as apply)  
 technical      travel      how to do something, but not all that technical  
 a look at lugs      new products      human interest      new projects      bike set-up  
 riders and their bikes      maynard      editorial      questionnaires for \$\$
- The bead seat diameter of a 700C rim is:    622mm    603mm    584mm
- Here's a tricky one. If a fork has a brake reach of 47mm, and you magically lowered the brake hole 2mm and lengthened the blades 3mm, what would the new brake reach be?  
 \_\_\_ 48mm    \_\_\_ 52mm    \_\_\_ 42mm    \_\_\_ 50mm
- When the dollar weakens against the yen, what's it mean? (circle all that apply):  
 Rivendell pays more for all Japanese goods      Rivendell pays less for all Japanese goods  
 There's no impact on Rivendell at all
- Back in the olden days, which rim was smaller? (circle)    700A    700B    700C
- Back in the old days, which tire was biggest? (circle)    700A    700B    700C
- True or False? (circle)    In general, carbon fiber forks are some of the most well-designed parts on modern bicycles, but at least they don't cost much.
- Organic materials tend to age better than synthetics. When they look good with the signs of age and wear, that there's what you call your \_\_\_\_\_.

♦♦♦

Name \_\_\_\_\_ Member/subscriber Number \_\_\_\_\_

Six or more correct answers before May 31 wins you \$15 Rivendollars. Correct answers will be posted on [www.rivbike.com](http://www.rivbike.com) on June 1, for a week.

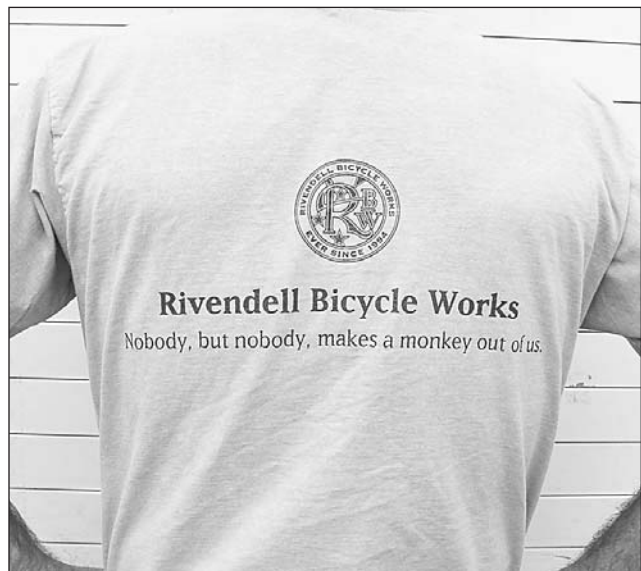
FAX this to: (925) 933-7305      Or mail to: **RBW Quiz Box 5289 Walnut Creek, CA 94596**

### New T-Shirt with a slogan which, just for the record, was selected by John

One of the worst things that can happen to a person is to have somebody, or a group of them, make a monkey out of that person, especially if you're the person. I think we can all agree on that. This T-shirt lets folks know that we feel immune to being made monkeys of, so folks shouldn't waste their time trying. When you wear it, you send out the same message about yourself.

Made of organically grown cotton dyed with clay, so as t-shirts go, it's fairly clean/green/expensive. A goldish corn in color, with dark blue ink. It looks like it was dyed by hand in a bucket, but it looks good. \$20

S: 22-496    M: 22-497    L: 22-498  
 XL: 22-499    XXL: 22-500



This is the back, the circle logo is on the front, sans slogan.



## 603: Halfway between 700c (622mm) and 650B (584mm),

it'll fit on 95 percent of the road bikes made. It'll double the bike's versatility and comfort.

It'll let you put fenders on an unfenderable bike. It'll turn a skinny-tire only bike into a cushy go-anywhere bike. But it'll threaten the status quo, scare people, and nobody wants to risk the first move. Will we do it, anyway? And do you want to be a part of it? Want to find out more? Okay, here goes...

In the old days, there were wheel sizes called 650A, 650B, and 650C; and 700A, 700B, and 700C. The 700 and 650 referred to nominal wheel diameters, in millimeters. The A tires were skinnier (less puffy), the Bs were mid-sized, and the C tires were fat. But they all measured out the same, about 700mm or 650mm.

For this article to make any sense to you, it's important to understand that, so it bears repeating: All of the 700 series of wheels—meaning 700A, B, and C—had about the same diameter—700mm. All of the 650 series measured about 650mm. But the tire volumes varied a lot, as did the wheel diameters. Basically, it went like this (for the 700 series):

**700A: 640mm rim + 60mm of tire = 700mm**

**700B: 635mm rim + 65mm of tire = 700mm**

**700C: 622mm rim + 78mm of tire = 700mm**

If you're thinking those are some honkin' tires, don't forget that the tire figures include the tire on both sides of the rim (say, at 12:00 and 6:00). So the 60mm 700A tire, which lists at 60mm up there, comes from 30mm below the rim and 30mm above it, and so on for the others. Look at the tire volume for 700C. You'll see that the original 700C tire was about 700x39.

It worked the same for 650 A, B, and C. Mike Barry explained this well in an earlier *Reader*, but it bears repeating now, just to drill it in and to introduce it to readers who didn't read that issue.

These days, the concept of achieving the same nominal diameter wheel with tires of different volume seems weird, since we deal with only with the smallest of the original three 700 wheels—700C—and just buy skinnies or fatties or something in between, as we like. As long as the bike has sufficient clearance, you can ride skinny tires on smooth roads and fatter tires on normal roads or trails.

The current way has the advantage of requiring only one rim, and just buying tires of varying volumes to fit it. But has two drawbacks: One, when you put a bigger tire on any given rim, the bike grows with the tire, cutting into standover height. Frankly, that's not the end of the world, but this is: As tires have gotten smaller over the years, brakes have shrunk as well, and the system has devolved to the point where road brakes crowd the wheel to the point where it's hard to mount tires that aren't super skinny (by historical standards, at least), and there's not room for fenders.

Those weren't problems with the old system. I'm not saying "let's go back," I'm just saying those weren't problems with the old way. There's a difference.

In any case, 622mm became the dominant rim size. Remember, this size was originally for fat 700c tires. But as roads got smoother and riders wanted to go faster, they put skinnier and skinnier tires on these 622mm rims.

Then frame makers started closing in the clearances around these smaller wheels. Fork blades got shorter.



Both photos show a 700c Ruffy-Tuffy and a custom-made 603mm rim with a cut-down and re-sewn tire that started out as a 700x37. The diameters are exactly the same. Coincidentally, a cut-down 700x32 tire has about a 674mm diameter—the same as a 700x23. Every once in a while, things just work out.

Chainstays got shorter. Brake bridges got lower. Sidepull brake manufacturers redesigned and retooled to accommodate the smaller tires and closer clearances, and quit making the earlier styles that fit over bigger tires and fenders.

The movement continued to the current point, where now it's hard to find a bike that'll take a 32mm tire. (Ours do and then some, but they're the exception.)

Let's say you have a normal road bike, and you want to ride a bigger, softer tire, because you want to be more comfortable, or you gained 50 pounds, or you want to ride it on fire trails. You try to mount a 700x38 tire on your rim, and it won't go. Or it barely fits, but almost grazes the chainstays or brakes. There's no prayer of a fender fitting, and it's December in Seattle, or Portland.

My fine chap, you are out of luck.

#### Go Back to the Future

You need air above the rim, for either a fatter tire, if that's what you're after; or a fender. Or both. And to do that, you need a smaller rim. Use a rim halfway between 700c (622mm) and 650B (584mm). That works out to 603, smack dab in the middle of 622 and 584. The radius, of a 603mm rim is 301.5mm, or 9.5mm smaller than the 311mm radius of a 700c rim.

That 9.5 is a neat number, because it means if you have a 700c bike with short reach brakes and the brakes are set between 43mm and 47.5mm (and they are), you could mount a 603 rim and just use long reach sidepulls. You still

have your sidepulls, the bike still looks the same, the wheel diameter is the same or close enough to it, and yet you're riding on more air, and may have room for a fender, too. It solves the problem.

But the 603 isn't just a solution to bikes with small clearances and no room for bigger tires. It works great for road bikes (like the Rambouillet or Romulus or any Rivendell design), even if the bike comes with longer reach brakes already, and already has clearance for a 700x38.

In this case, you mount a 603x38, and the overall wheel height is exactly the same as the original 700x27 that came with the bike. You can easily mount a fender. The only thing is, you need brakes with more reach. There's not a huge selection right now, but the Dia-Compe Mod. 750s work. And being the insiders that we are, we strongly suspect that next year there will be more brakes with the proper reach. The need is so obvious, and it will be filled by more than one maker.

#### Where Do You Get Rims?

Velocity is making them for us. Anybody will make them if you pay them, but Velocity is more progressive than many rim makers—they made us the 650B (584mm) rims, after all—and they don't hear about wacky projects like this and think, "Oh, wacky project." Tom Black is our factory contact, and he owns Velocity, so it's not like we have to go through sales reps and office workers to get to the decision maker. For this and their excellent rims, we're going to Velocity for the 603 rims.



Our Romulus bike with 55mm reach and a 686mm diameter 700c (622) tire. Room for a fatter tire or a fender, but not both. Still, this is fantastic clearance for road bike.



Our Romulus bike with a 603 x 37mm tire. It has the same diameter (686mm) as the 700c Ruffy Tuffy. But this tire has way more volume AND there's plenty of fender room. Shown with a Dia-Compe centerpull brake, used to reach down 9.5mm farther, to the rim.



A typical carbon fork, showing that is has the vertical room for a 603 fatty (37mm), but the blades are too close together. As you read elsewhere in this issue, there's no benefit to having the fork blades so close together.

### Tires are much Harder to Get than Rims Are

We're trying to get a 603 tire, maybe a 32, 35 or 37. It costs more than another tread pattern for an existing 700c or 650B tire. Since the diameter is new, more tire-making tools are needed, and we've had quotes up to \$17,200 for the new tools. That's way too much for us.

### Will the market accept the 603?

Of course not, in a big way, anyway. There's just not enough understanding. It's too new, and it takes a base of knowledge and perspective that most people don't have. It takes an all-out attack, with at least several makers and the media behind it, but it's way below their radar. They have bigger fish to fry and other more pressing issues. And, the more enthusiastic the pitch is, the more the seller comes off like a wacko. But, it is a fantastic idea.

### "Would I be able to turn my '82 Italian racer into an all-around road bike, comfy, fendered, and still fast?"

Absolutely you could. *You could take almost any frame designed for 700c wheels, and stick 603s on it, and make it more comfortable and versatile.* It's harder with carbon fiber forks, because they're so narrow. As you can see in the top right photo, the 603 gives you more room on top (so with a 35mm tire, you could fender it), but there's still the width issue. It's frustrating, how narrow those forks are. If limiting tire options was the idea, they've succeeded in a big way.

### Remind me again—what's the "603"?

It's the bead seat diameter. A 700c tire fits onto a 622mm rim. A 650B tire fits on a 584, A mountain bike tire fits on a 559. The 603 is halfway between the 584 of 650B size and the 622 of 700c size. It would be less confusing if we could talk of rim sizes by these numbers, not by the tire sizes that originally were meant for them, but have since shrunk. For the rest of this article, that'll be the way it goes.

### Let's say I just get a pair of 603 wheels. What then?

Good question. You'd need new brakes to reach lower, to the smaller rim. If you currently have normal Shimano-or-

Campy short reach brakes, you'd have to get Shimano long reach brakes. If you currently have long reach brakes, you'd have to go longer still (by 9.5mm), which right now, would mean centerpulls.

### But aren't centerpulls cheap and weird?

No, they're really good brakes. We have them, and maybe others do, too. And, we have reason to believe that next year there will be more brake options.

But back to the centerpulls. You'll need a cable hanger for the front, and that's easy; and one for the rear, and that's harder but still do-able. Dia-Compe makes several models, and others do, too. There are ways to make it work, and options will only improve. We're working on it now.

### Long term rim and tire availability?

If we go ahead with this, we'll be the only source of rims and tires. We'll stock the rims and tires as long as we're here, and we plan to stay around. If you wanted to stock up on tires, wrap them in plastic and keep them in a closet, and they won't age.

We prefer a more optimistic approach. It's a good wheel size. It makes bikes with too-short forks way more useful and comfortable. It makes bikes with fine-length forks even more versatile. The brakes you need are available now, and that will only improve in the future.

### So—are we going to do this? When?

We've got to do it. It makes too much sense not to. People will squawk about new standards, but that's okay. It's just a bicycle wheel, and it's a smart one. It's fun. That's it. If you want to help make this happen, send us \$10 in a **separate check** (memo: 603), and we'll create a \$10 credit memo on your account, toward any future order. Or send us \$25 and we'll do \$25, or \$100 for \$100. If we can raise \$12,000 this way, we'll come up with the rest. This could be fun.

—Grant

grant@rivbike.com

# How we made 603mm tires from 622mm tires, so we could ride 603 wheels.

Just in case you were wondering, and certainly NOT to encourage you to try this yourself, even if you had a rim to put it on, which you don't.

It's astoundingly easy. I used a Speedy Stitcher, a misnamed but strong stitcher you get at outdoor shops.

I'm quite good with it, having used one for 30 years for various projects. Hypothetically, if your 603 tires got slashed outside a bar in Timbuktu, you could use this method to make your own 603 tires from the local favorite size, whatever that is. I've done four now, and it's easy. Yes, I ride the tires, too. I know it's



1  
A 700c (622mm) tire is too big. We knew that going into it.



2  
Cutting the wire bead with dykes.



3  
After cutting both beads, cutting the tread with scissors.



4  
Fitting the whole cut tire on the 603 rim, showing the overlap.



5  
You want some overlap, so you cut about half of it...



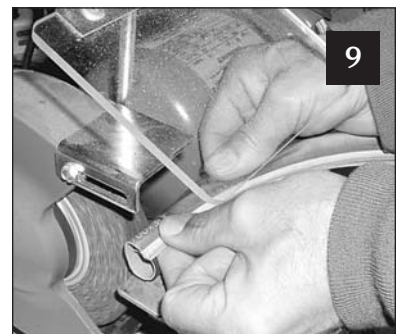
6  
This much came out. It's about an inch and a half (2.5 fingers).



7  
Fitting it again. Just checking. Lining it up (the overlap).

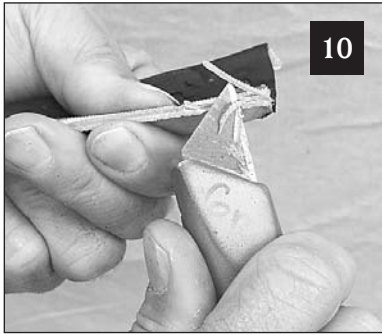


8  
Marking the overlap. Surprisingly, you don't have to nail it right down to the atom.

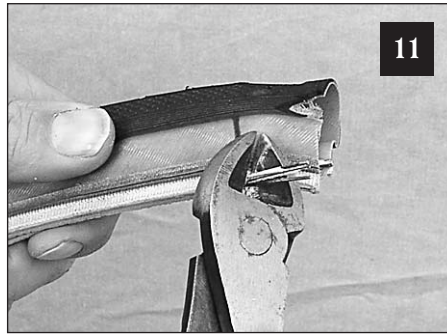


9  
Grinding down the tread, the part you tuck under the other part, thing.

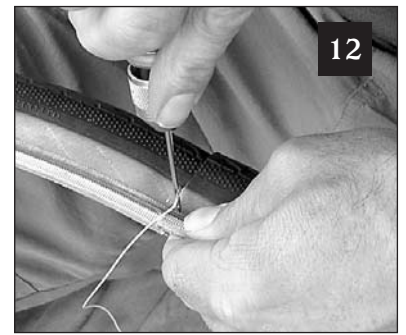




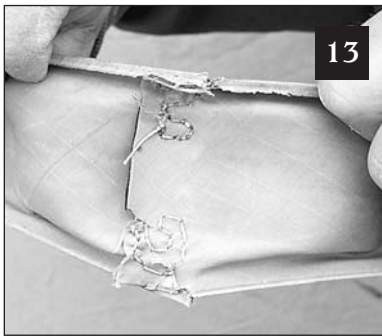
Shaving the casing away from one side of the bead.



Cutting the exposed casing. I did this on the section I ground the tread off. This then...



...fit under the normal part, and I stitched it up with a hand awl.



There is is, sewed up & ready for the Tour de France. If Lance rode 603...



The stitched-up tire from the outside, almost too pretty to look at. Makes you want to take off on a long, treacherous, high-speed descent, doesn't it? Me three. Panaracer must be proud.

## Does 603 Actually have a Future? Well, that Partly Depends on You, Actually...

This is where the fun stops. I thought, "Well, another \$5000 mold...can't do it NOW, but maybe Panaracer will split the cost, and we can pay it off over time. I'll ask." And I did ask, and found the startup costs for a whole new diameter cost \$17,200. That sounds almost like a fancy way to say "No!" and if Panasonic—who we know and like and eat food and laugh with—rejects it, then what are our chances with anybody else?

But, we are shopping it around. Maybe it's too expensive for Japan. But 603 is a good idea. It would fit virtually any 700c bike out there. You'd have to change your brake, but that's relatively easy, and I think there will be more brake options next year, anyway. FLASH: Innova says they'll do it. We still need help.

**In any case, we want to do this, so we have to raise money, and here's the plan:**

If you send us a separate check for this project, we'll give you a credit equal to the amount of the check. It can be for \$10, \$100, or \$1,000, even \$5.37. Whatever it's for, you'll get a credit for that full amount. **We want separate checks so we don't absorb the money into the general fund and not have it for the tire.** So that's what we'll do, and there's no way that it'll happen without some help. Come on, it'll be fun!

**Send to RBW/603 Fund. • Box 5289 • Walnut Creek, CA 94596**



Here's a country bike. You'll recognize it as a Saluki, but it could be any bike. It could be tig-welded, or even made of carbon fiber. But here's the look and features it ought to have—upright position, cushy tires, wide range gearing, and a friendly look.

## What this country needs is a good *country bike*

**Road bike** has come to mean a racing-style bike, with minimal usefulness outside the peloton. **Mountain bike** has come to mean technological whiz-bang bike for the inner bad boy. **City bike** means cheap bike with tacky accessories wrapped up in a boring package.

**Touring bike** has been used before, and conjures up an image of loading up your bike and hitting the road. Touring can be fun, but it's hard image to sell.

What hasn't been used is **country bike**. "Country" can mean lots of different things, from tree-lined streets in the suburbs to un-maintained county roads to woods, forests, and trails. Whatever "country" means to anybody, it's always just a little more pleasant than what you're used to, and more accessible and believable than racing, or mountains & high adventure.

A **country bike**...

*Should look like a road bike*, soft, with curves, and nice proportions. The handlebars don't have to be drop bars, but they should have curves, because straight-bar bikes look severe and don't feel right.

*Could be any old wheel size*, but heck, let's nominate 650B (584mm) as the front-runner. It lacks the gonzo-history of 26-inch (559mm) and the go-fast image of 700c (622mm). It was developed for touring the country roads in France, and that's the image we want. There's no weird baggage there, no performance history.

*A country bike should be made for 32mm to 42mm tires*. That's between modern road and mountain. It should fit

these tires with fenders.

*It should have brakes that can be released* enough to make tire installation and removal easy, or at least not hard. Cantilevers and centerpulls are fine. We could use a sidepull or other style, too, but except for some BMX models, nothing exists.

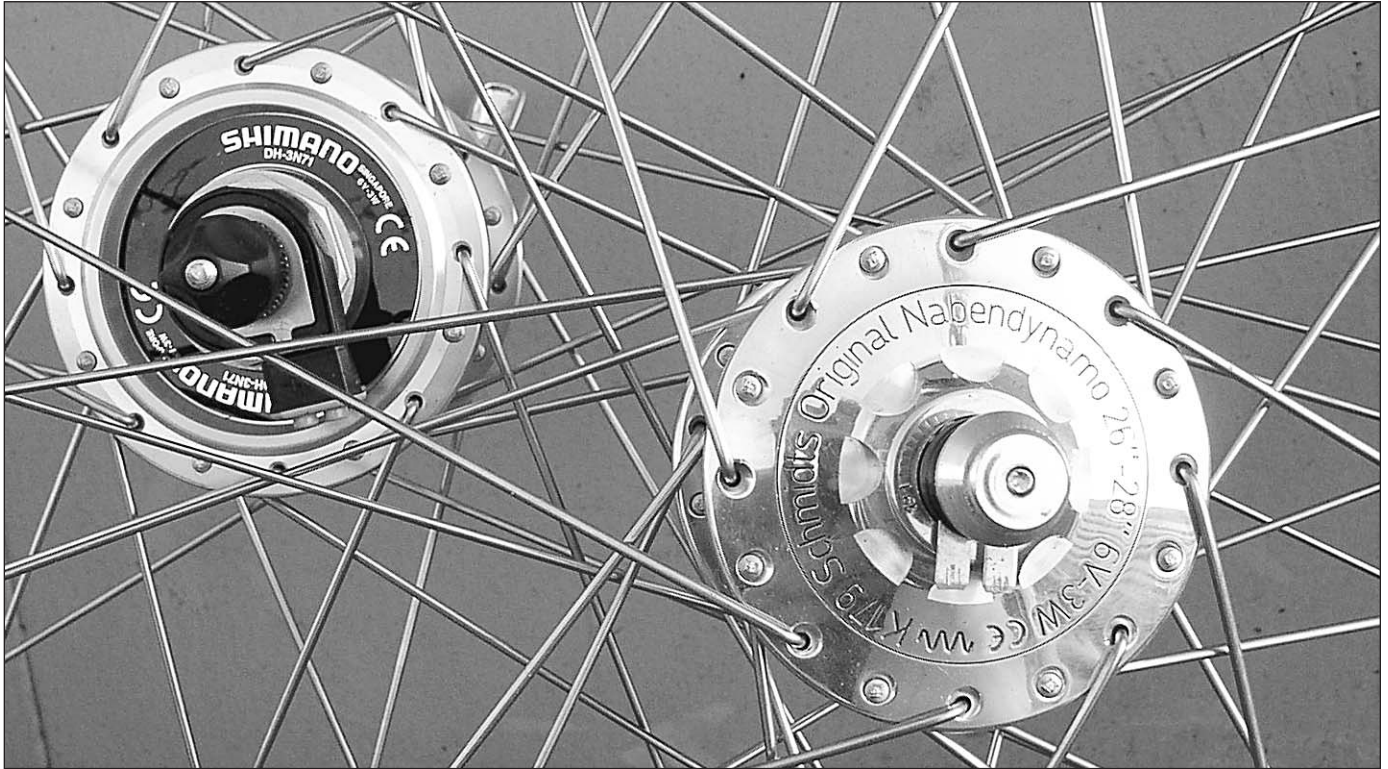
It should be ready for racks.

*You should be able to get the handlebars at least 2cm above the height of the saddle*, without resorting to extreme retrofits. The bike should look right. I don't know if the industry as a whole is willing or able to go back to threaded steer tubes, but they continue to make sense, especially for a country bike.

If you're thinking, *an old touring bike, or any pre-suspension mountain bike can do those things, just retrofit them with appropriate handlebars*, you're right, but you can't launch a revolution with old soldiers like that. Without a new category, country bikes will stay nameless and largely underground, with small numbers of bike riders making up their own bikes this way.

The category will make it happen in the mainstream, and that's what's needed to do the most good for everybody. When the volume can support it, we'll get new parts, better availability for everybody.

For the new category to happen, it will need the support of at least one big parts maker (guess who that'd be), and one manufacturer with volume and some vision. That's the tough part.



## Two Good DYNO-HUBS Scientifically Compared & Notes on LED vs Generators in General

One of the many ways people can be divided is by which kinds of lights they prefer, and want everybody else to prefer. These days, it's generator lights, which we'll refer to as dynohub lights, versus LEDs.

Since dynos don't use batteries, they're green, and allow an extra measure of independence that LEDs don't. The best ones cost a lot and you probably can't find them at your local shop.

LEDs powered by mercury-free batteries aren't as green, but aren't exactly ultra-brown, since the batteries and lights last so terribly long. They get better every year, are cheap, and everybody sells them and knows about them.

In this story we compare the two best dyno hubs: The Schmidt Original Nabendynamo (SON, it goes by) from Germany—the top-rated one in the world, by far the best known, the most expensive, and universally loved; and Shimano's latest and best dynohub, the N71, which Shimano markets as an "Ultra-level" model.

### Biases and Information Going into the Tests

Both hubs use magnets. The Schmidt has 26 of them. When you turn the axle by hand (both hubs), it feels terribly notchy, like a horribly adjusted hub. The resistance is disconcerting, something you'd never tolerate on a normal hub. It feels like a badly adjusted hub.

But Schmidt claims that with the light off, the amount of

resistance is equal to climbing an extra one foot per mile; and with the light on, it amounts to climbing five feet per mile. How they figured that out is far, far beyond me. Shimano hubs make no specific claims, but the hub feels about the same.

Both hubs look nice. The Schmidt is shiny, the Shimano has a soft, satin finish. Don't go picking one over the other based on this.

### Lights to Use with Them

The Schmidt is usually paired with German lights made by Busch and Mueller, since the U.S. distributor for Schmidt sells both. I think Schmidt and B&M see themselves as teammates in the light world.

Shimano makes its own light, and it is sleek and styled the way you'd expect from Shimano. But, either hub will fire up either light, so you could mix Germany and Japan in your system. For the light part of this test, we opted to use the Shimano light, for consistency, convenience, and partly out of laziness.

### Conk Lusions

The Schmidt won and it weighs 5 1/2 oz less. So maybe it's worth the much higher price. But the Shimano isn't that far behind—as you'll see on the next page. You won't go wrong either way, although no doubt each hub will attract its loud-mouthed fans.



**Is this the end-all/be-all of tests?**

No, but we did ten drops for each, tossed out the high and low, averaged the rest. The results were consistent, and repeatable. Equally important, these tests fit our Generator Hub Test Budget. In the photo here, Andrew's hand is NOT touching anything, so the weight is falling freely. The lower string just aids retrieval. He's standing on a container.

**The Equipment**

- Three otherwise identical wheels built up with a Schmidt dyno hub; a Shimano N71 hub; and a SunTour XC9000 normal hub
- Fork to hold the wheels
- Bike stand to hold the fork
- Shipping container to stand on
- Heavy & light cylinders as dead weights
- Thick hemp twine as a wheel yo-yo string
- Mark's Timex Ironman stopwatch
- A new-model Shimano light (for both hubs)

**High Speed Test**

We put the test rig atop a shipping container, 12 1/2-foot above the ground. We taped the end of a 12-foot length of twine to the rim, then wound it up and tied an 8-pound aluminum cylinder to it, then dropped it and timed the spin from the drop till the wheel stopped. We test both with the light ON and with it OFF

**Low Speed Test**

We used the same bike stand, fork, and procedure, but did it at 4-ft 4-in, and used a shorter length-of-twine and a 2 1/2- lb. weight, to simulate slow-speed riding. We did both Light On and Light Off tests.

In both tests, Andrew gave the countdown to the drop, at which point I started the clock and stopped it when the wheel stopped moving. That's how it worked. Good enough!

**Test Results**

**High Test, Light Off**

Schmidt: 21.02 seconds  
 Shimano: 18.26 seconds  
 SunTour: 97 seconds

**High Test, Light On**

Schmidt: 4.27 seconds  
 Shimano: 3.96 seconds  
 SunTour: N/A

**Reminders**

High test = 8lb weight  
 dropped from 12ft 6in.  
 Low test = 2.5lb weight  
 dropped from 4ft 4in.

**Notes**

Wheel: Velocity 650B, no tire.  
**Hub weights**  
 Schmidt with allen: 21.3oz  
 Shimano with q/r: 27.9oz

**Low Test, Light Off**

Schmidt: 15.67 seconds  
 Shimano: 13.32 seconds  
 SunTour: 80 seconds

**Low Test, Light On**

Schmidt: 2.46 seconds  
 Shimano: 2.37 seconds  
 SunTour: N/A

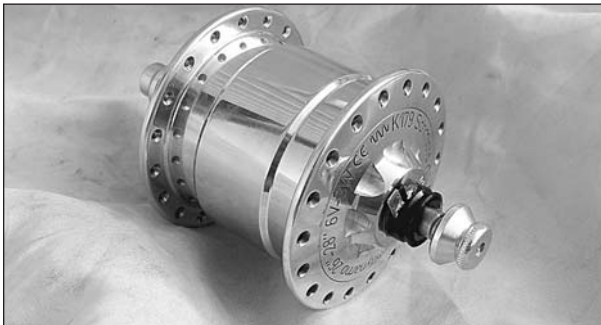
## Sterling is Our Resident Night-rider. His Thoughts...

Two years ago I got a Shimano Nexus NX-30 generator hub for my 20-mile nighttime commutes, and about a month ago, we got the new latest Shimano DH-3N71 generator hub, and I've been riding that on my Saluki. It's a big improvement over the NX30, with less drag and rolling resistance, though not as low as Schmidt. It's rated at 3 watts, and puts out good light.

For moderate speeds, about 12 to 16 mph, I can't detect resistance with the light on. I'm writing this before seeing the test results, so this is just my subjective feeling. In any case, it's an improvement over the older Shimano hub. At speeds of 18+ mph, I'd say it's about the same as the NX30. The resistance seems taper off at 22 mph and faster, or maybe I don't just notice it.

Overall, I like the new hub. Add to that the fact that the Shimano hub costs much less than the Schmidt, and it's a winner. When we received the Shimano -71 generator hubs, we also got some of the new Shimano LP-R600 lights. Once again, Grant asked me to field test the light and provide my thoughts. The LR-R600 has an On/Off switch, which operates the main light. It also has a built-in auxiliary LED light, which is powered whenever the hub spins. The main lamp puts out a decent beam, but tends to be a bit diffuse. I'd say the LP-R600 is adequate enough for city riding or for commuting, where one can rely on additional street lighting to see. For brevets, I'd rather use my Lumotec or the Schmidt E6 lights.—*Sterling*

## How To Get 'Em



**Schmidt Original Nabendynamo**

Rim	Price	Part No.
32° Mavic MA3 700c	\$325	18-204
36° Velocity Synergy 700c	\$325	18-207
32° Bontrager Maveric 26	\$325	18-206
32° Velocity Synergy 650B	\$340	18-205
36° Rigida Sphinx 650B	\$340	18-208
36° Schmidt hub alone	(see peterwhite.com)	



**Shimano N71 Dynohub**

Rim	Price	Part No.
32° Mavic MA3 700c	\$225	18-209
32° Bontrager Maveric 26	\$225	18-211
32° Velocity Synergy 650B	\$240	18-212
32° Shimano N71 hub alone	\$115	18-200



18-218 \$105

### Schmidt E6

A bright halogen light that puts out a square, focused beam that lights up the road directly ahead. The housing is waterproof. Set up is easy. The best choice so far for brevets or wherever brightness is extra important.

### Shimano LP-R600

It has a dedicated LED light that is always on and lasts forever; and an on/off switch for the main light. Set up is very simple. The beam isn't as focused as the E6 beam, so it's not as good for high-speed riding on dark roads. But it's an excellent for most riding, and our top choice for commuting.



18-201 \$58

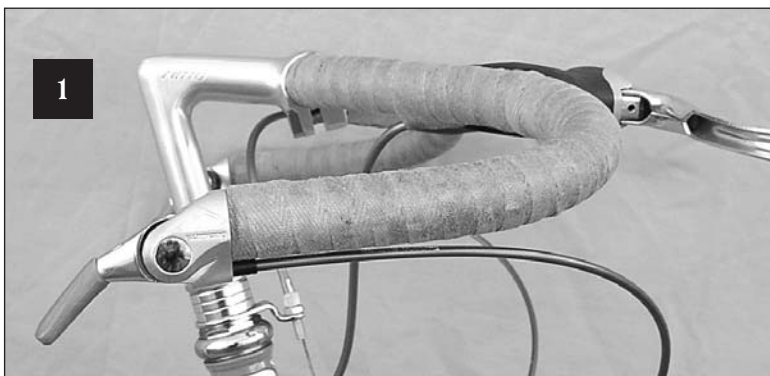
## Not the Last Word About Bike Looks

Even if I didn't know what it was for, I'd think a nicely designed and proportioned and outfitted bicycle was a nice thing to stare at. I like the triangles and circles and curves, mainly. But once you've got the basic shape makes a bike look good? Or bad?

There are things that make it go either way. Just like there are rules that govern proportion in architecture, and rules that can keep you on track when you're combining two, three, or four colors in a bedroom, there are also rules that can keep you from mucking up a nice bike. I don't know any of the architecture or color rules, but I know a few bike ones. Of course, it's your bike, you can do whatever you like, and you should! But over time, if you look at bikes enough and are the contemplative sort, you'll come to like certain things and not like others. Some looks are easy for anybody to like—a deep blue sky with sunlit, golden blonde clouds about half an hour before sunset. Some things are almost impossible for anybody to like—a shiny taffeta olive green and hot pink pants suit with matching purse and shoes, under a brand new leopard-skin pillbox hat. Most things fall between these extremes, and most bikes certainly do.

Another thing that affects how I feel about how a bike looks, is what I know about it, and associations I have with it. It's just like with people. You can't like the looks of the Hollywood starlet who ran over your puppy and thought it was funny (made up example); and with me, I have a hard time liking bike parts that look good on the surface, but I associate with bad quality control, or delivery headaches, or a vendor or manufacturer who's kind of hard to believe or get along with. There's not a lot of that going on, but there's not none. On the other side-o'-the-coin, when something has good people in it, and great value, and we have history of using it a lot with no problems, no failures, no complaints...then I like it a lot even if it isn't ultra-highbrow. The Sugino XD-2 crank is a perfect example of that.

What follows is what I like, so it's rife with value judgements that we may not share, and I'll say right off that I'm comfortable with my preferences, you should be comfortable with yours, and there's no right and wrong. Our purpose here isn't to stir up debate and establish rank, but to get you thinking about your own bicycle, so you can do it up the way you like best; and if you get a perverse thrill from "violating" the values expressed here, more power to you! —GP



### Stem and Bar Angle

When viewed from the side, the stem should seem to flow into the handlebar. This is easy enough with a stem that's roughly the same angle as the head tube (as shown above). It's not so easy with up-stems, and in fact, you wouldn't want to follow this rule with up-stems. Also and related, the lower portion of the drops should be five to ten degrees up from horizontal. This same look can be achieved with drop bars, especially ones with a flat ramp, like the Noodle.



### Tire-to-Frame Clearance

It looks best when the front and rear tires are about the same distance from the downtube and seat tube, respectively. Once you have your bike, it's out of your hands. It depends on the geometry of the frame. But tires that almost touch the seat tube suggest that the chainstays are too short. It could be a seat tube angle too slack, but usually it's the chainstays. There's nothing you can do to "make your bike look like this if it already don't," but it's another part of the bike to appreciate when it does.



### Spoked Wheels

These are the defining symbol of a bicycle. Not disk wheels, not molded tri-spokers, not mag wheels—spoked wheels. And once you're onto that, then laced spoked wheels (as opposed to radially spoked

wheels) look the best. Skinny wands of silver forming triangles within a circle—how can you beat that?

### Non-black Sidewalls

In the old days I'd've said "tan sidewalls," but with my only hope for a contented old age depending on my licensing patent #6499422 for SpeedBlend tires, I'll just rag on black sidewalls and leave it there. Besides, I truly like SpeedBlend tires. Black sidewalls make the tire look heavy and dirty. We sell some tires with black sidewalls, because they're good tires anyway. But I don't like the black.



Fourteen percent. The lower limit. This frame happens to be 60cm, with a 75.5cm saddle height, leaving 9cm of post showing. You know, I think it could go about 1cm lower, even.

### Visible Seat Post

On bikes that seem right to me, the visible portion of the seat post is between 14 and 22 percent of the seat tube length. The lower range, up to about 16 percent, makes a bike look country; the upper range makes it look racey. I like the country look. These numbers assume a B.17 with a 6.5cm saddle depth (SD), the distance from the low point to the top.

The formula I used here is:

$$(SH - SD) / \text{Frame size.}$$

Where SH = saddle height from center of bb, and

SD = saddle depth.

In a B.17, SD is about 6.5cm, but most modern saddles are about 4.5cm deep. The razor-blade saddles of today are about 3cm. They expose the whole clamp and I find that a hard look to like. The clamp shouldn't show much at all. On some saddles, even Brooks, that's hard to do.

Set your bike up for comfort, not looks. My bike is a 14 percent, not the perfect 16.5 that I'd like, but I'm not going to ride a smaller bike with lower bars just to hit a number. A bike that looks right and feels wrong is wrong.



Twenty-two percent. The upper limit for good looks. The same 60cm frame, but with a 79cm saddle, leaving 12.5cm of visi-post.



### Fender Set-up

This isn't the most stellar example, because we don't have any stellar examples around here. But it shows that the front and rear fenders are pretty much equally spaced from the tires, and that's the main thing. This is most possible on bikes with vertical dropouts. If your bike has horizontals, you've got to allow more room to remove the rear wheel, and that means the front of the rear fender will be farther away from the tire than the rear part of the fender is. That's perfectly okay, nothing to get funkyed-out about. Also, because we'll get mail about this: The fenders shown here are SKS fenders, our favorite, but they're not unimprovable. We'd like to see both fenders longer, especially the rear one, in back. We've installed a mudflap, and that takes care of rear spray, but we shouldn't've had to do it. They ought to make the rear fender at least a foot longer, and the front too...while they're at it, of course. It's always while they're at it. Nevertheless and all that said, this bike looks fine and works great in the rain. Our Nigel Smythe & Sons mudflaps are coming in July, and once they arrive—watch out!



### Saddle Angle & Position

This part of the bike looks best when the saddle is level, all leather, and is shoved back so that the post "enters" the saddle just forward of center. Usually that means shoving it back all the way. The post should be silver and say nothing. The clamp should be hidden or mostly so, and offset some. The one here looks fine. The best look, historically speaking and chock-full-o'-opinion: A Simplex seat posts on an Ideale (French) Mod. 92 brown saddle. That, actually, looks so good it almost turns my stomach, like too many egg nog malts. In 2005, it can look like you're spending too much time on eBay. The worst possible look, no offense intended to any of you who may have a bike set up this way: Black, logo'd suspension post with no offset. Skinny saddle that exposes the whole clamp part. Saddle shoved all the way forward on the clamp, and angled downward.



### Fork Rake

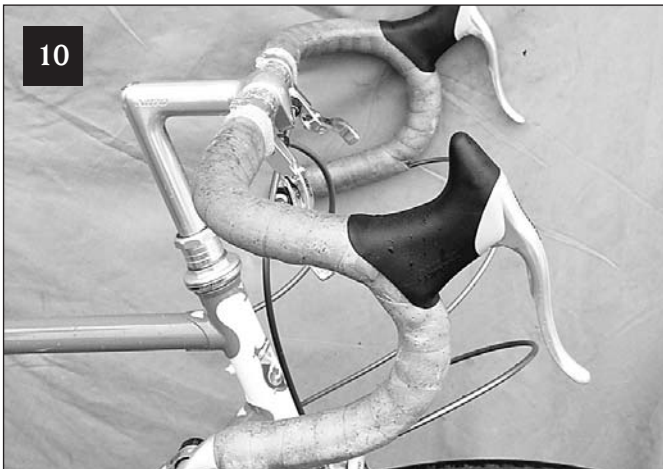
The thing that makes us more grumpy, bummed-out, and angry at the world is the surfeit of horrible-looking forks. The blades should tape to skinny. The radius should continue all the way to the end, and the centerline should aim through the center of the dropout. A beautiful fork is hard to make, and always worth it.



## Graphics

The paint shouldn't interrupt the shape of the frame with lots of color changes, or special effects. All one color is fine, but so is an offset head tube panel, and maybe even a downtube and seat tube panel, but that's it. Decals should be readable from 10 feet away when the bike is moving 10mph. Metallics should have fine flakes. Colors can be dull or bright. Any head badge beats any decal. All decals should have an outline, and letters should have some flourish. The Columbine downtube decal is especially nice. The GT downtube decal, on the other hand, takes up about ten inches and is unreadable, are not especially good-looking.

Seat tube decals should be placed about about 40 percent down the length of the seat tube, so, a bit above center. Downtube decals should go high, and the letters should be above the centerline of the downtube, so you can read 'em easily from a normal head height.



### Bar Tape & Brake Hood Color

The darkest a tape should be is one shade darker than the frame color, and lightest, about two shades lighter. With black brake lever hoods, try to avoid black tape, too. It's too bad brake lever hoods are black or nothing—why not settle for golden brown, or grey? But they are, so do the best you can with them. Also consider the frame:tape color, and even the tape:saddle color. You'll notice, if you look at bikes in this article, sometimes the bar tape is dark—like, navy blue, with black levers. It's not the end of the world, and looks better in color than it does in a b/w photo. But in general, something well between the extremes of black hoods on white tape and black hoods on black tape looks best.



### Lugs & Crowns Always Look Good...

...to me. Even the crudest lugs and fork crowns are more interesting than welds and unicrowns. Fillet-brazing is fine, has a unique look, but ultimately there's not a lot to see in a fillet-brazed joint, and invisibleness goes only so far. Lugs give you something to see, and in these lug-scarce times, I'm not going to come out and attack any live styles. I've got my preferences, but until lugs once again rule the world, I'm going to applaud them all. Same goes for fork crowns. The more the merrier, bring 'em on, give us your poor, your tired, and so on!

## Organicalize Your Bike with Cotton, Hemp Twine, and Shellac (or: How To Worry Your Clubmates & Become a Bully Magnet)



### Antennae, Anyone?

After twining your bars, leave a few inches uncut. You can always cut it later, but in the meantime, it's something to fiddle with on a ride. You can watch them fray over time.



**Unpredictable Frivolity**  
If your stem is all the way up (this one isn't, quite), you can fill up the space with a bell (not shown) or a wrap of bar tape and twine, shellacked, like you see here. People will ask, "what's it for?" and there's no real good answer. If you say "looks," they'll huff some, like you're an idiot. If you say, "to match the chainstay protector," they'll talk about you a day later. But it's your bike, so you can do what you want, and if you want the Jane Fonda as Barbarella look, go for it.



### Creative Chainstay Protectors

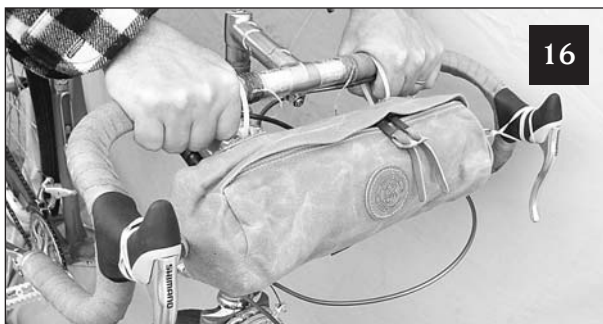
This one is shellacked cloth tape with twine—to match the handlebars on this particular bike. This was done after the build, but it's easier to do first thing. It looks manly, and where's the harm?



### Too much, too soon?

It caused a stir when the guys saw me doing this to my Saluki. "Look, it's just for a *Reader* story, to make a point" I said, and it was true at the time. But I'm keeping it, and for \$20, I'll do it to any bike or frame you get from us. I'll match the handlebar tape. Anything goes. Brian here, who probably won't do it to his bike, described it as "adding something organic to high-tech metal," and that may explain why I like it. Along the same line, but even more advanced: Find a wild bird feather, the bigger the better, and tie it to your handlebars. A million points for eagle, a hundred for hawk or turkey. They hardly weigh a thing.

## Quick & Dirty Works, Too, and Sometimes You've just Got to Do It



### Zip-Ties & Rubber-Bands

Zip-tie a Candy Bar bag to the handlebar, keeping it loose (leave room for your knuckles), then hook the sides to the brake levers, using rubber bands. The bag stays well out from the bar, zipper up, perfectly accessible. The rubber bands don't get in the way, and if the added bounce bugs you, use something less stretchy. Hemp twine is that.



### Duct Tape Mudflap

If all mudflaps were chosen on price, function, and ease of installation and customization—and I'm not saying they should be, just if they were—then every mudflap on every bike with mudflaps would be sporting duct tape mudflaps.

Scoff if you will, but bear in mind that these don't have to be permanent; and beside that, there are lots of colors of duct-tape, and you can shape 'em anywhich way you like. Go to town, duct-tape fellow!

At some point, even a special bike has to plow the fields and pay the rent, and it's fine to make a bike more usable with whatever it takes to do that. I realize that might seem contrary to our approach to other bike matters, and maybe it is. But I (Grant) have been making do and jerry-rigging forever, and it's hard to get it out of my system. It's fun, and nice bikes can handle it. Better than bad bikes, I think.—G

# Beausage

## Not “because,” not “sausage.” *Beausage*

From the runways of Paris to the streets of Calcutta and all points in betwixt—  
it’s the new aesthetic barometer that’s sweeping the world, and it all started with bikes

The Japanese term *wabi-sabi* refers to the beauty of things that aren’t perfect, or symmetrical the way you’d expect them to be. For example, a clay bowl that’s not quite round, or with a glazing that got too hot and looks blistered. A non-Japanese term, *clinamen*, refers to deliberately sabotaging an otherwise perfect craft-type object to make it look, according to some, better. To me and to Holden, that just seems phoney, like stone-washed jeans. Then there’s *patina*, the ageing and weathering that dulls certain metals and turns copper turquoise (refer to the Statue of Liberty). *Wabi-sabi*, *clinamen*, and *patina* acknowledge that a little imperfection or wear can make something look better. On a bike, there’s another one, too, which, I’m going to call *beausage*—the *beauty* that comes from *usage*. (Don’t bother looking it up.) With *beausage*, the object shows use, sometimes a lot of it, but retains its function and is as safe as ever.

In general, *real materials develop beausage*, and synthetics just look like old junk. It’s like a cowpoke’s old denim jacket, verses an old polyester leisure suit; or an old wooden chair, compared to an old plastic one.

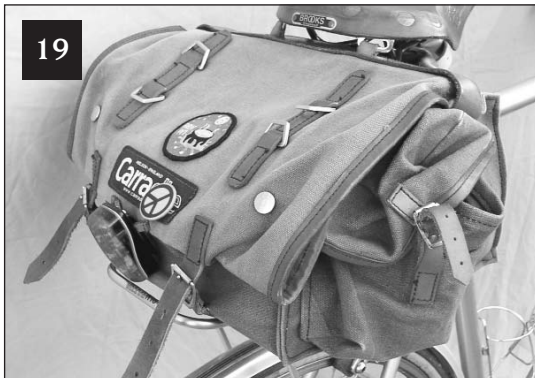
How about the dark spot the sun makes on the part of a tan tire sidewall that’s over a patch? Sure, we can count that. Well-used cameras and tools get *beausage*. I pronounce it “byoo-sij” and I may be the only one who ever actually utters the word, and I’m not sure it’ll be in my vocab when I’m 80. It’s not really sweeping the world, but I think a little of it, or even a lot of it, looks good on bikes. That may just be my excuse, for slobbishness, though.—GP



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### Raggy cotton bar tape

The bare spot adds interesting inconsistency to the feel of the grip, and it doesn’t bug me because I associate it with the fun that wore it out. Despite how it looks, it works about as well as fresh tape, and is no less safe. That’s important. But any more wear, and it’s not *beausage*, it’s just junk.



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### Sun-faded Bag

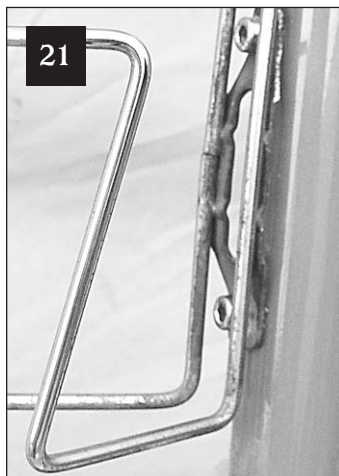
Weathering darkens all leather and lightens all fabric, and buckles rub belt marks on the straps. John’s Carradice looks way, way better now than it did spanking new. The older, the better-looking.



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### Old leather saddle

A brand new saddle looks like a lumberjack in a tuxedo, with slickered down hair. Leather improves its appearance with use more so than any other material, making it the *beausage* champion. This beauty has been gnawed on by a squirrel, which, technically, isn’t *beausage*, but we’ll count it this time.



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### Rusty Cage

Chrome isn’t permanent. It starts out, brand new, with teensy cracks in it, usually where it bends, but sometimes all over. You just can’t see it. Shiny steel looks good, but rusty chromed cages look in another way. My dream is to have a cage rust all the way through. It’s not my biggest dream, not even in the top ten, but it is a dream, still.

### Disappearing Decals

Decals without a clear coat can rub off over time. This one is from a 1981 Ritchey. We’re all for repaints and refurbishing, but it’s hard to look at this and not see the *beausage* in it. Nicks and chips, same story. If you just want another color, then repaint. Note: This is a rare example of how synthetics sometimes can develop *beausage*. Don’t go thinking the floodgates are open, though!



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# Good Things Review

## Bicycle—A History (a book)

By David Herlihy

This book has been reviewed by more experienced book reviewers than I, and in bigger publications than this, and all the reviews are say great things about it, but I doubt anybody who's read it has enjoyed it as much as I have. I know nobody has enjoyed it more.

I didn't expect it to be that way. I knew David Herlihy was a good writer, but I've never been THAT interested in what happened with bikes a hundred or more years ago, and I expected to glance through the book and then put it on the shelf as a reference, in case I had to look something up. I figured I knew the highlights of the old days and the evolution of bikes, and that was enough.

But I read it through in five days, and if I wasn't so busy and didn't need to sleep, it would have been one. Now I realize how little I knew about the evolution of bikes. Now I have a clear picture of how it all happened, and it helps me look at modern trends and see them from a future perspective. I can see how we fit in with the rest of the bike world, too. I think I know where we're at. Also, when I'm riding my Quickbeam and wish I was in the smaller gear, I think about the early years, and cower in shame at my whining.

Reading the book feels almost like being there. The personalities of the key guys come out, and the excitement of the times, and it's all just really good. Reproduced throughout are pages from bike catalogues, and promotional posters, and even letters from this big shot to that, or from customers to manufacturers.

Nobody in our lifetime will take on this topic, now that David has done such a great job of it. You don't have to care much about bike history to like this book a lot; you just have to care about it a little.



## Tivoli Model One Radio

It's made of real wood and metal. It's small, has great sound, catches more channels than most, and is designed by a fellow I'd never heard of—Henry Kloss—who died a couple of years ago and was apparently the King Kong of audio-type things. This is a great little radio, and it's only \$99 (no "dearth of nines" pricing policy there at Tivoli, I guess). You can get a Model Two, too, for another \$50, and I forget how that's different. Model Three is like the Model One with an Analog Clock Radio built in, and costs a more painful but not bank-breaking \$199. You can buy separate speakers that look the same way, for about \$49.

All in all, it's a good-looking, great-sounding, modular, compact (6x6x12), affordable way to go, and it's not even digital with plastic made to look like wood. [www.tivoli.com](http://www.tivoli.com).



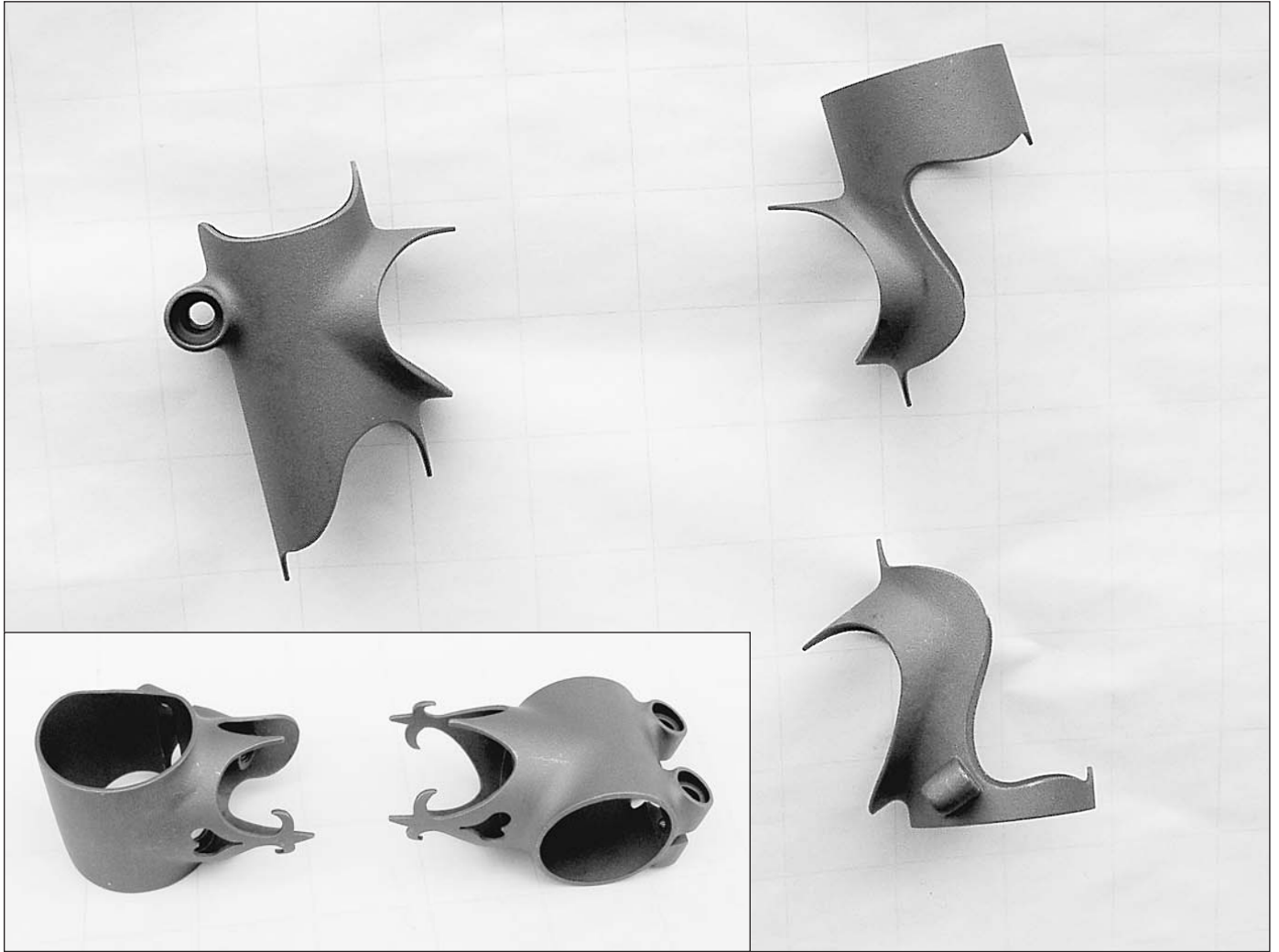
## Filson Waist Pack

If you don't always ride in a bike jersey, but you still'd like to carry a little gear back there, have a look at this fly-fishing pack from Filson. It holds a small camera and a few sandwiches, keys, lip balm, tools, and you can hang armwarmers on the waistbelt, if you don't mind the look. It's a light sage green, all cotton, not waterproof, has a metal zipper and hardware and a few more pockets than you'll need, both inside and out. But the main pouch is pretty useful. Has a Fastex belt buckle. It measures about 10" x 7" x 3". and costs \$64.25. [www.filson.com](http://www.filson.com)



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(just in case this page gets lost, we find it, and you want it back)



## Kirk Pacenti's New *Slant Six* Lugs & Stem Lugs described & 'splained by Kirk Pacenti

SLANT SIX isn't about old Chrysler engines, but refers to the compact geometry design. Many of my customers wanted a "modern" lug set that would allow them to use 1.125" steer tubes and carbon forks, and that's why I designed these. However, I figured if my customers want modern, I'd go all the way with compact geometry and larger diameters. The lugs are decidedly race oriented, with short points and spoons, built in cable stops. Nothing fancy, all business.

Although they're road lugs by design, they work perfectly with modern MTB geometries, and they're selling well among single-speed mountain bike builders. I plan of building myself a SS MTB with these lugs this summer.

And finally, I wanted this set to, in some way, keep lugged frames relevant in the 21st century. As you know, I love lugged bikes, but I don't like that they are viewed as 'retro' or 'old school'. To me lugs are the best method of building a bicycle frame. Now builders can build modern race bikes without compromise.

The stem lugs came about for the same reasons—popular demand, and I just like lugs. Rivendell came out with stem lugs several years ago, and another company has them (they sometimes show up at bicycle trade shows), and I like the idea, so here are mine. I think it's neat that these days, with all the emphasis on carbon fiber and high tech, that lugs and lug availability have never been better. Who would have predicted *that*, just ten years ago? The stem lugs are fancier than the Slant Sixers, with their fleur de lys and hearts, but they look good on any bike. Most modern stems are bulky, and bulk without some kind of beauty is just—well, just bulky and nothing to brag about. —KP



## The Atlantis before *our* Atlantis

A rare, limited production Frenchy-type bike from Bridgestone

This is the first bike I saw named Atlantis. It was designed by Bridgestone (Japan) employee Hiroo Watanabe back in 1981 or 1982. He's still at Bstone, and as far as I know, he still likes French bikes.

This Atlantis is Mr. Watanabe's production bike tribute to an Alex Singer; or at least close to it. Alex Singer was a French bike builder in the golden '40s and '50s, and even past that. You can still get new Singers, but Alex is long gone. Anyway, the lugs here are similar enough to Singer lugs to identify Mr. Watanabe's inspiration, and Singer it is.

It's a cyclo-touring bike. It's not intended for off-road riding or heavy loads, but for day rides, weekend rides, and rides of that nature. The front rack is actually a support for a large handlebar bag.

I don't have a listing for the geometry, but I measured some things on the bike, and it's a laid-back road bike, with a shallow head tube. The seat tube is steeper, about 73.5 degrees in this size.

The bike came in both 700c, like this one is, and 650B.

I first heard about this bike when the fellow who had it contacted me and asked if I wanted to buy it. I don't have the room or money to just buy bikes that I'm not going to ride; but I wanted the bike, and offered some kind of trade. Things got complicated with that, and after a while it became clear that he ought to just sell it

on eBay, which he did. A friend bought it and sent it to me, which was above and beyond.

At first I was going to do a makeover on it, but there wasn't room on these two pages for the detail shots I wanted to show (on the next page) and the "after" shots, where we, predictably, equip it with Albatross handlebars and mountain bike levers. We'll probably do that, though, since even though the bike is rare, it's not an ultra-collectable. At 55cm, it's too small for me to ride with drop bars. Robert and Mark here could ride it, but they aren't about to give up their normal bikes just because they fit this one.

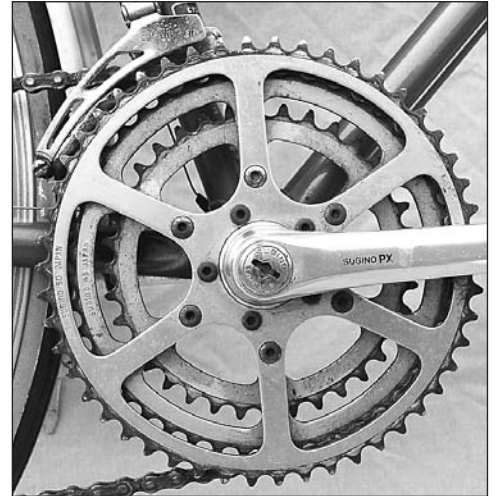
The idea of "making it over" in the way I've described—or any other way, for that matter—raises some interesting questions: Is it a shame to change a relatively rare bike such as this, especially when somebody conceived every detail on it? Does that dishonor the bike or the designer? Should I try to get new decals for it, and make it as pristine as its current condition will allow?

I'm going to put Albatross bars, a B.67 saddle, a taller stem, new pedals, and a different crank on it. Albatross-bar it, but I'll keep the original parts around. I have mixed feelings about changing it, but when I realize that the most you can do for a bike is ride it, it just makes more sense to do what it takes to make it more rideable. We'll fetch lunch on it.—Grant



LEFT: Japanese-made French-style handlebar bag support. Bridgestone went all out on this bike. They must really like Hiroo Watanabe. He is Japanese, he does work there, and he had been there a long time up to this point (1982). Proof that Bstone could do anything it wanted to, but we (as the U.S. division) never had this much clout.

RIGHT: Sugino knocked off the T.A. Cyclotourist crank, and used better hardware, but made it only in a 165 length. It is no longer made, and hasn't been made for probably 18 years.



LEFT: Brazed-on Dia-Compe Mod. 610 centerpulls, with custom fenders. Maybe they're Honjo, the top Japanese brand, and maybe they're Bstone's own. I'd bet on that, since Bstone makes its own fenders.

RIGHT: It's looking more and more like a Honjo now, with that wrap-around stay and the I-bolt and all, but I'm still not convinced, and it hardly matters. The fender-mounted reflector is a nice touch. If you use fenders that don't have that reflector, go to an auto parts store and get DOT-approved reflector tape. Adhesive-backed, no hardware or zip-ties needed, dang it.



ABOVE: The seat lug with a Dia-Compe brake cable hanger. On the smaller Saluki frames for centerpull brakes, we're going to use something like this, maybe exactly this. The 54cm and larger sizes will have the normal brazed-on stop.

Note also the fluted seat post, a type that the Japanese Bridgestone guys I dealt with referred to as a "rain-catcher."



ABOVE: The top head lug, with a mangy headset. This style headset, with the toothed interface, is, on one hand, easier to adjust, but harder to micro-adjust. I like it a lot, myself. Stronglight made a version of this, the V4, and it proved itself on tens of thousands of bikes. But the perception is that it's a cheap way to go, so you don't see it anymore. Bridgestone made its own headsets of this style, and this is one of them.



ABOVE: The lower head lug and fork crown, also showing the brazed-on brake mounts. All of these lugs are patterned after Alex Singer lugs. Not exact copies, but close enough. The fork crown was developed just for this bike, and was later used on the XO-1. Ironically, only 300 Atlantis bikes were made, so only 300 crowns were used. We used 3-times that many on the XO-1.



Rambouillet with double-Mark's racks. It mounts easily on any road bike. Good for saddlebags, great for baskets...whatever you want.

## Mark's Du-All Mini Rack

**This may read like an advertisement for Mark, but it's really about the racks.**

Mark Abele is a clever fellow and has an unusual mix of talents. He's the fastest local rider on the mountain on roads and trails. He got tenth and sixth at the National Cyclocross championships in masters and all-comers single-speed respectively. He's a bit of a weight nut, yet he rides lugged steel. He stays on top of all the technological developments, and yet he works here. He's the California State Champ at bar-b-cueing, or would be if there were such an event. He's so nice that he's the last person on earth that anybody could dislike, even his racing rivals. He knows everything about bikes, yet is patient with folks who know next to nothing.

And about a year ago he designed for us just the niftiest do-all, mount-anywhere rack and saddlebag support you could ever want, and now we have them here, and they're perfect.

It came about because lots of folks asked about mounting a small front rack onto their Rivendell road bike, or Romulus, or Rambouillet, or some other bike with sidepulls. Sidepulls make it hard, because you can't use

the hole in the crown, on account of that's where the brake bolt goes.

There are other racks that solve this problem. Gilles Berthoud makes a nice one, too. Mark surveyed the current selections, and came up with his own rack, which Nitto makes for us.

It's a front rack or a rear rack. It works with sidepulls, centerpulls, and cantilevers. It's a saddlebag support, a front back support, a basket support, and fits at least one Gilles bag, and we're having Nigel Smythe make us a bag just for it, which we'll have later this Spring. Lights mount to it easily.

It's just a good, all-purpose rack. Too bad it costs so much, but that's the way it is with fine, hand-made Japanese goods these days. Nitto racks are as nice as any you'll see. They're tubular Crmo, and plated with either nickel or chrome, not sure, in what Nitto calls its "dull-bright" finish. That's not a name an ad agency would approve of, but we like it.

Uncharacteristically, these racks are in stock now.





The bent-just-right slider mounts to the brake centerbolt, then clears the headset & positions the rack properly. The front tab holds a light, either an LED or generator. It's pretty versatile, with the hole and all—things go on easily enough. This is a great little rack here.



Mounted with the side rods to the internal rack mounts on a Rambouillet. Without the braze-ons, you clamp it (clamps included) or use the included center-slider mount, and attach it to the brake bolt. It fits to any bike, easily.



The rack comes with plenty of hardware, including a tab for front mounting, and a different one for rear mounting. It mounts easily on any halfway normal bike.



It prevents any saddlebag from dragging on the tire in the case of a really low saddle, and shifts the bag some to the rear, away from your thighs (some people can't stand it when their thighs graze the bag). See inset.



This arrangement is fantastic for large front loads. The basket is zip-tied onto the rack at 6 points, so it's not izzactly a quick-release set up, but you don't always need that. Just put a daypack in there. I use this for camping. It holds a ton, and there's no interference with my hand, either on the tops, hoods, or drops. The bike is from Osaka, the rack, from Tokyo, and the basket, from Kentucky...but who's counting?

## Particulars, Pricing

**Materials:** Tubular CrMo, plated

**Designed by:** Our own Mark Abele

**Made by:** Nitto

**Weight:** Between 11 and 14oz. depending on the hardware used.

**Good for:** Saddlebag support, small bags of various types, baskets, or just lashing on a sack full of something. And there's a light bracket on it, too.

**Article No.** 20-108

**Price:** \$88



Bhadra & Fuhais lure coursing—a competitive field event in which the dogs chase fake rabbits, pulled through a zig-zag course and attached to pulleys, because real rabbits aren't allowed east of the Mississippi.

## Saluki: The Dog So Neat They Named a Bike After It

by Jan Isley

A recent DNA study reported in the research journal *Science* confirms that modern Salukis are closely related to dog's most ancient wolf-like ancestors. Saluki roots extend deep into human history. It is safe to speculate that the first companion relationship between humans and animals was with a hunting dog. Evidence of this relationship is found in what we now call the Fertile Crescent in Iraq. At the ancient village of Catal Huyuk in 6,000 BC, an artist painted the oldest surviving picture of a hunter with his dog; a Saluki-type hound chasing a deer. Archeological evidence of domestication of this same type hound appears a thousand years earlier in Anatolia. Sumerians, creators of the first written records of man, recorded stories and drawings of these same hounds two thousand years later.

Carefully prepared Salukis were entombed with King Tut so that Pharaoh could hunt game in the afterlife. According to Arab tradition, ancient Egyptians were introduced to Salukis by the Silk Road caravans. The Bedouin, descendants of those ancient nomads, still live a nomadic life and still rely on the Saluki for their hunting skills and companionship. Devout Muslims consider ordinary dogs to be unclean. The Bedouin consider the Saluki separate and distinct from dogs, and often provide them a soft bed in the Sheik's tent. Thousands of years of archeological evidence, artistic records and modern DNA research leave little room for doubt that the modern Saluki is an ancient and noble creature.

The same bloodline that was first drawn out of the darkness to the warm fire of an ancient hunter sits by the fire in my living room. To the unfamiliar eye, Salukis seem skinny and frail; they are anything but.

Harsh, marginal subsistence for millennia where dinner was fast and often far away before the chase began has produced a phenomenally efficient hunting machine.

The AKC standard states: "The whole appearance of this breed should give an impression of grace and symmetry and of great speed and endurance coupled with strength and activity to enable it to kill gazelle or other quarry over deep sand or rocky mountains. The expression should be dignified and gentle with deep, faithful, far-seeing eyes."

Salukis are not for everyone. Their personality tends to be less doggy than most dogs and they generally lack the common canine desire to please their humans. As a rule, they are quiet and careful with their affection; aloof and horse-like, as some would say. They react well to fair treatment and respond in kind. They are faithful to a fault and become very attached to their family pack. Treat them harshly and you will lose their trust for life. For their own mental health (and their owner's), Salukis require room to run and regular use of it. Fences are a must; Salukis can catch cars and are not afraid to try. Whether called upon to earn their keep or simply guard their domain from suburban squirrels or the occasional jackrabbit, Salukis are without equal. Like people, Salukis come in many colors and personalities. If you have a Saluki temperament, you will not find greater companionship in the animal kingdom.

*Jan and his wife Carola and their salukis live in suburban Atlanta, Georgia. For more info on the dogs, and photos, visit their website: [www.saluki.to](http://www.saluki.to).*



The leaper is Celeritas (hard "c"). Einstein buffs will be pleased to know that the C in his famous equation stands for celeritas, Latin for...well, it's where accelerate comes from. Waiting her turn is sister Carmina. Jan's wife Carola is the leapee.



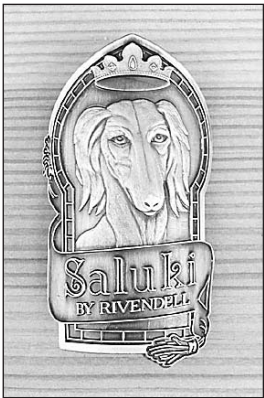
Alvin and Falu. Falu was English, Canadian, and American champion. Alvin might have been, too, but his name wasn't exotic enough, and the judges held it against him. Alvin was Carola's first saluki, and sort of gave her the bug.



Jan calls these the Fabulous Bees. Left to right: Badoura, Bharani, Bhadra, Bara, and Bodhidharma



Alvin and Falu. To me, those look like some fast dogs. Thank goodness they're friendly.



**The Continuing Saga of the Headbadges**

It was Jan Isley's passion for saluki dogs that inspired the frame that spawned the badges, so this spot seemed like a good place to show some variations. The one on the left is the original, lightest, aluminum, painted multiple colors, and made in Italy. It's the default badge. The one on the right is thick metal, pewtery or bronzy, and made in Rhode Island. It costs \$25 extra when you get a bike. Unfortunately, the two outer ones don't fit onto small Saluki head tubes, so we had the middle one made. Rhode Island. It's the default on 47, 50, and 52cm frames, but is available on any frame if you like the shape and have an extra \$25 to spend. These badges cost a lot to make.



Mark got this bike so he could have two Rivendell cross bikes for the races (you need a pit bike, too). Two years ago he got his first Rivendell cross bike, and flatted on the second lap at Nationals, and rode the rest of the race on his other bike. Now with two, that can't happen. This one is about 19 pounds race-ready, but here it is in standard dress for the local trails. Soon it'll have a Riv threadless lugged stem—not to imply that there's anything wrong with the Ritchey, but Mark likes lugs and he *does* work here, after all.

## Mark's New Cyclo-Cross Bike



This is a race bike and Mark is pretty strong and he has another Rivendell cross bike set up as a 44x36. So this one he wanted to go supersuper light on everything, hence the one ring, 42t. The derailleur isn't hooked up. It just stops the chain from falling off.



Personally, I'd reject this one-arm design on looks alone, seeing as how the arm is hanging out there alone and not sharing the load; but Mark wanted light, and Curt's a good brazer, and it's never going to budge in a million years, and if it does budge, I can say "I told you so." That's worth something.

# Rivendell

Above: The new downtube decal. It's less rounded, more Viking-like. We still like and have the originals.



The same lugs as for the Saluki, but carved up some, since it is a custom bike, and Mark wanted some extra metal removed. To save weight, he opted for a round head badge. We have a few of them, from the early years. It looks good with these lugs.



TOP: A new, panel-type seat tube decal. It goes only with the new downtube decal. It's the "Viking" series.



If you've read this issue from front to back, this is a familiar view by now. But it's an important view, too. Notice the good clearance all around, and the balance of clearance. The back wheel has the same good clearance at the chainstays. Yes, a whopped wheel will hit the brakes first, but you can loosen, open, or even remove them in a pinch. I've had to do that.

## Mark's Notes

I wanted a superlight race bike that weighed under 19 pounds. This bike, with race wheels, weighs 18.5 without anything too exotic. All the front derailleurs do is act as a chain keeper, so it doesn't fall off, and I could get something lighter to do that. But I'll probably race with it pretty much as you see here, except for the tires. My everyday tires, which work fine on trails, are the Panaracer Pasela 700x32 folders. I race with Panaracer Crossblasters, a cyclo-cross-specific tire I like a lot.

I was going to put a silver headset on the bike, and may still, but this is one I had when I was assembling it. The Spooky cantilevers are from eastern Europe, and really light, but quirky to set up properly, so I wouldn't recommend them for general use. The photos may as well be in color, since the bike is darkish grey. My other Rivendell cross bike is light grey.—Mark



## Who Rides an Atlantis?

**Name and Age:** John Hansen, 45

**Job:** Artist. Designed Romulus head badge.

**Hobbies:** Camping, cycling.

**Years riding as an adult:** 10

**Favorite Author:** Mark Twain.

**Favorite Movie(s):** High Noon, True Grit, Billy Jack, Blind Fury, Forrest Gump.

**Favorite Music:** Rick Derringer, Tom Waits, The Beatles, Johnny Cash, Snow Patrol.

**Typical Ride:** 0-30 miles around town, and a few sub-24-hour overnights (camping).

**Favorite Ride:** RAGBRAI. (Ride across Iowa)

**Dream Ride:** Go To California and do an S240 with Rivendell staff, and then ride home to Iowa. Or ride out and ride back.

**Other bike(s):** Bridgestone X0-4, Trek 1220

**Why this bike?:** Quality lugged steel frame that you could ride across America or go around the world with. It's an affordable, multi-purpose bike.

John is the artist who designed the Romulus head-badge, a job he got because after we already had the Rambouillet badge, he sent us a sketch of one that looked just as good, maybe a hair better.

**To be here:** Send image, posed as shown behind the left side of any of our bikes on a plain background, and with no harsh shadows. No need to hang up a sheet behind you, but it helps.

**B/W TIF or JPEG preferred, not required: 8-in wide, 200 dpi, TIF or JPEG to [John@rivbike.com](mailto:John@rivbike.com). And then....be really patient. Thanks.**

# Leave Us Alone

by Maynard Hershon

There's a big, air-conditioned Barnes and Noble bookstore three blocks from my home, with a café inside and lockable bike-parking cages outside. You can sit in the café and read any book or magazine B&N sells. I do not deny myself that luxury.

Sometimes I walk to Barnes and Noble; often I pedal. When I pedal there, I do not wear my helmet. I'm so used to wearing it on longer rides that I notice its absence. I feel light and cool but extra vulnerable - so I am wary-plus.

I note that many cyclists around Tucson, more and more each year, wear cotton cycling caps or cotton cycling caps with the tops cut off or baseball caps or warm winter hats or no hats at all. And they're not merely riding to the bookstore - they show up bareheaded for training rides, even the huge, wild 'n' wooly Saturday morning Shoot-Out.

It can't be a good thing, not wearing a helmet, can it? Why suddenly are so many guys (very few women ride helmetless) riding big road miles in big packs without them?

You figure you'd see a helmetless rider once or twice a week. Nope. I see them every day. Often, they're the majority in their training group. You count eight guys, one with a helmet, seven without. I don't believe that would have been the case a few years ago.

I haven't seen so many riders sans helmets since the '70s, days of leather hairnets, Bell Bikers, Skid-lids, hockey and mountain climbing helmets. Many options, none attractive.

In the '70s, when there were very few of us, we could pretty much trust each other. Traffic was thin as the all-beef patty. Helmets were crummy, heavy and hot. We'd say: Guys Who Need Helmets Wear Helmets. We don't need them so we don't wear them.

There are lots more of us now, out there on the roads. Thousands have learned to pedal. Hundreds can pedal in a straight line, solo on a windless day. Far too many cannot ride happily in a cozy pack and don't want to learn. They are ticking bombs when they sit in pace lines at big events like El Tour de Tucson or the MS150s.

Some riders of team replica bicycles cannot drag a bottle out of a cage or look back over their shoulders without loss of control. They couldn't tell you which hand works which brake. Carbon levers, though.

Traffic is awful. Drivers are impatient, inattentive, otherwise occupied, drunk and/or emotionally upset. Their vehicles are gigantic, effortless as gazelles, agile as hippos. They feature GPS, rear-seat TVs and huge driver blind-spots. That's the bad news.

The good news? Helmets are SO much better. They're light and fit great. Even cheap ones provide good protection yet allow gale-force airflow. They're even good-looking.

Why doesn't everyone wear one? Isn't it obvious? They're no longer cool. Why aren't they cool? Pros don't wear them. I believe magazine photos of Euro pros have provoked the change. Hard to miss the message, huh? Cool, fast riders, real hardmen, shun the helmet.

Some pros train and race without helmets. Hey, I don't have a problem with that. They're pros, after all, not fools - they know best how to protect their health. That's why so few abuse performance-enhancing drugs.

We're not pros, though, are we? We can't ride our bikes any better than we can drive our SUVs, but we yearn to be like the gods. We want to be mistaken for pros. We do anything we can to create that illusion.

We read the pro-race fan magazines and base training decisions on what pros do, clothing decisions on what pros wear and bike-buying decisions on what pro equipment sponsors provide. We buy carbon Colnago bikes, Assos clothing and carbon fiber bar/stem sets. We buy trick wheels and ultralight saddles.

Why would we not continue to ape our idols as we roll out from our garages, our USPS replica helmets still dangling on their hooks.

It IS tempting, isn't it, to leave that helmet hanging there. And not all that difficult to defend...

It's our decision, isn't it? We aren't going to harm anyone by not wearing a helmet. Any misfortune will be our misfortune alone. We can ride our bikes well enough to avoid accidents. We have seasoned judgment; we can sense danger in traffic and in the pack.

If something happens, we can ride right through it, through just about anything. And keep the bike on its wheels.

We know that things can happen, but they haven't happened to us. If things did happen once or twice, they haven't in a long time. We've served our apprenticeships in cycling. We've reached a level where we don't need training wheels and don't need helmets.

If we're required to wear them at some event, we do. We aren't dead-set against helmets, understand. We recommend them for those who need them and enjoy wearing them. We'd simply prefer not to wear them ourselves.

Our choice in this hasn't got anything to do with vanity or the emulation of so-called heroes. We don't need helmets so we don't wear them.

We've heard the horror stories, the I-wouldn't-be-here-to-tell-you-this-if-I-hadn't-been-wearing-mine stories. We're sure helmets are helpful in certain circumstances, but we intend to avoid those circumstances - and people who get in our faces to insist that we wear the damn things. Leave us alone.

We'd never tell anyone what to do or what to wear. We'd surely appreciate it if others took the same attitude toward us. Leave us alone. It's our head and our decision. Don't tell us about the limits of medical insurance and how far you have to drop a human head to stop its functioning. We've heard all that stuff.

We insist that if something happens to us, it was our choice, for good or for ill. We're not wearing them. Nothing will happen. Hey, and if it does, we probably won't hit our heads. We're not wearing helmets. Leave us alone.

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