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# THE RIVENDELL READER

Issue No.

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Winter 2005



Winter 2005



## A QUARTERLY FOR BICYCLERS



## Saddle me up my big white goose

**T**he last issue had an article by Rory Cameron, about converting 700c road bikes with skinny tires and no-to-minimal clearance for fatter ones or fenders, to smaller diameter, puffy 650B wheels with fenders. I don't know how many of you read it, but it started a monumental mini-movement. About the same time, I don't know and it doesn't matter if this next thing happened before or after the article, but member Ken Stagg speculated on one of the forums about this sort of thing, and then another one of our members, Ed Braley of Maine, started converted some of his 700c bikes to 650B. So far he's done five.

The basic idea is this: Lots of road bikes are designed so that they fit only skinny 700c tires, and have no room for fenders. This is exactly the common & bad way to design bikes, and we don't do it that way, but the fact is, there are forty-thousand bikes out there that are like this.

Putting on 650B wheels in place of the 700c ones makes them way, way comfortable on all roads, makes them suddenly suitable for rough roads, and gives you tons of room for fenders, so you can ride them on wet and muddy roads. All in all, it's a

smart way to make a mediocre and not-so-well designed bike that isn't all that practical, into a smart bike that works better for anything short of speed-racing. I'm not saying 650B wheels will do this for any 700c bike. I'm just talking about the ones that weren't so well-designed in the first place, and can't take a puffy tire or fenders. A well-designed 700c bike is still a good bike, but there are tons upon tons of not-so-well designed ones that need a 650B makeover.

The conversions are easy for anybody who doesn't sweat at the sight of a wrench, and the cost to convert isn't all that much. The wheels may cost about \$300 if you buy new ones. New brakes may be \$50. But if the new 650B wheels are way more useful than the old hard skinny 700c ones, and if the change turns an unused bike into a fun one, then you still win.

Most of you know that our two most recent bikes—the Saluki and the mixte models (called the Glorius and Wilbury, for women and men respectively) are designed around 650B wheels, and there may be more in the future.

There are two main Good Things about this wheel size. In the

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THE RIVENDELL READER

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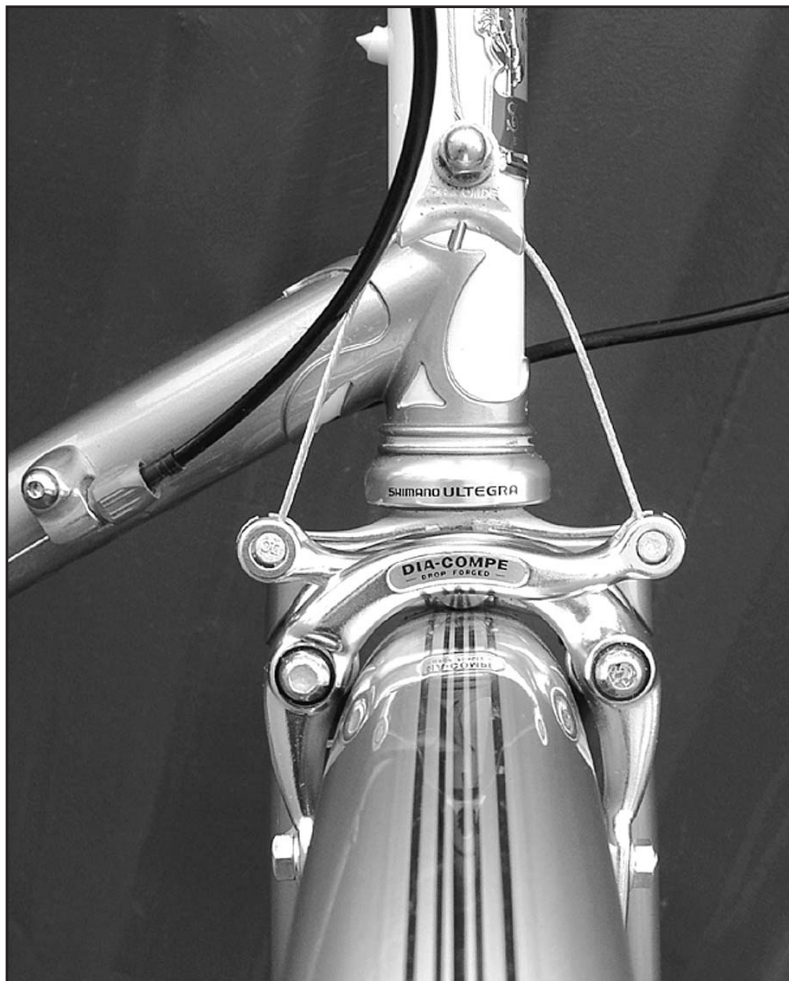
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smaller bike sizes, it lets you (or me, in Rivendell's case) design the frame better. Not better than with a 26-inch wheel—which is also a good size for smaller frames—but way better than with a 700c wheel. Then, since most 650B tires are chubby and soft, they add a measure of comfort to a bike that has to be felt to be believed. A 36mm wide tire inflated to 50 psi? Don't spend your entire amateur career avoiding *that!*

Whenever there's a new thigamajig around, there's a tendency to puff it up at the expense of the status quo. It happens with Moustache Handlebars, which seem to threaten folks who really like drops (I like both, equally). It happened with road bikes and mountain bikes, and it's still happening with Shimano and Campagnolo. That phenomenon hasn't yet happened to 650B/700c/26 (known also by their respective bead seat diameters of 584mm, 622mm, and 559mm).

It has to get close, because there has to be a reason for the new one, and the reason has to key off of a deficiency of the old one, whether it's real, fake, or just exaggerated. Smart, and I'd say *unimprovable* bikes can be made with all of those tire sizes. It's just that with 650B, it's harder to design a bad one.

Ed Braley talked about his view of the differences between wheel sizes this way:

**“These 650B machines are amazing. The bikes are transformed, and all for the better. In my frame size (52 to 54cm) I'm beginning to see of my 700C bikes as limited-use speed machines, because they just can't perform as well in the universal mode as the 650B bikes. With few exceptions, a true 700x28C tire is about the limit, whereas the 650x38B fits quite comfortably, and is quite fast compared to it's 700C counterparts. The bigger 650B tires feel just as fast as mid-sized 700C tires, and they allow the rider to go almost anywhere on the bike, in comfort.**

**Why didn't we do this sooner? It could be that the dominant players in the US bike market didn't think we were ready, or they didn't know. Or maybe they just didn't think. In the 70's we were sold on racing bikes, and then in the 80's and early 90's mountain bikes were hot, and now racing bikes are cool again. You can factor in comfort bikes, event bikes, and the other fringe elements, but what about nice, all-around bikes for people who really like bikes?—Fast, lightweight, go anywhere, anytime, kind of bikes.**

**It's time to reclaim these nice bikes and this 650B wheel for practical purposes. The 650B is like the lost and missing link in the system. My converted bikes are relatively unchanged in their road going manners and largely improved in their utility, at the expense of a little of their competitive edge for racing.”**

Maybe you agree with all of this, maybe just some, and maybe you just find it interesting, and will see for yourself in time, maybe. But the fact that one qualified bicycle rider can feel so strongly about this strange wheel size—*that* ought to be important to big manufacturers who don't really know all that much, but at least want to sniff out trends and explore possible new markets. If Ed Braley can like it, so can thousands.

Ed Braley is far from an exception, by the way. There's the 650B Society in France. Jan Heine of Seattle has been a 650B advocate for a few years now, and there are handfuls of riders all over the country who go nuts for 650B wheels, for the same reasons that Ed states so clearly.

But the amazing thing to me is that the U.S. bicycle industry in general is way beyond clueless and a million light years out of the loop when it comes to this wheel size. You could say



This 25+ -year old Raleigh Supercourse was no great shakes until Ed Braley converted it to 650B. Now it's ready for anything, even dirt.

“650B” to a dozen product managers from the top 18 bike companies, and they'd either never have heard of it, or might have heard of it, but consider it a dead size, go on home.

You *know*, at some level, that big companies are not innovative. The innovations and revolutions come from the squeakers and squawkers, not giants and Giants. Once you've grown to a Certain Size, there's too much at stake to innovate. Innovation by nature goes against the trend, and that's a hard road to take when you've got to sell your innovation to 500 dealers and all of your sales reps.

Big Media isn't a big help, either. They'll be all over change, so long as their advertisers initiate it, but that's unlikely for reasons mentioned in the previous paragraph.

The good things and innovation will come from bicycle riders, not bicycle writers, or even bicycle designers. Something may start on a drawing board, and even make it to production without much support or fanfare, but if nobody buys it, it dies and doesn't happen again.

I would love to see Trek and Specialized and Giant come up with well-designed 650B bikes. If anybody at those companies reads this and wants to try one, we'll send it to them. The same goes for Bianchi, which is much smaller, but tends to be more progressive. And the same goes for anybody in the media. In the meantime, we're going to do what we can, and if nobody but you guys pays attention or cares, that's okay. But don't quit paying attention or caring, please! That would be a disaster, not to mention sad.—Grant

links to photos of Ed's conversions:

[HTTP://FOLKS.HARBORNET.com/kstagg/650b/](http://FOLKS.HARBORNET.com/kstagg/650b/)

to the French 650B club:

[HTTP://CYCLOS-CYCLOTES.ORG/650/INDEX.HTML](http://CYCLOS-CYCLOTES.ORG/650/INDEX.HTML) and

[HTTP://www.CONFRERIEDES650.ORG](http://www.CONFRERIEDES650.ORG)

to Ken Stagg's 650B site:

[HTTP://www.FREEWEBS.com/650b/](http://www.FREEWEBS.com/650b/)

That ought to hold you for a while. Late-breaking news related to 650B (continued & most humble apologies to all you folks who aren't into it): A 650Bx34 is coming in late Spring. It'll be a lot like a Ruffy-Tuffy, but may have SpeedBlend sidewalls, and don't go classic on me, please. Tharain't nothin' wrong with some color here and there. It is not “against all we stand for” or anything like that. It's color that works! —GP

catalogue flubs: p 11: LS blacky price is \$48; p 74: Dia-Compe centerpull part number should be 15-111. Sorry.

## Hand Probs

I've just started commuting again on my ca. 90 B-Stone MB-1. I'd had lots of hand problems and finally got diagnosed as some ulnar nerve damage—basically carpal tunnel syndrome in a tunnel. My short commutes on the MB-1 brought it right back again (I'm OK on my road bike), so clearly the bars have got to go. The big question: Have you heard anything specific about the relationship between handlebar shape/location and wrist/hand problems? All I've ever heard is "don't ride your bicycle if it hurts," which isn't helpful.

My guess is that an albatross or dove on a high stem would be good. Have you ever heard anything to suggest that the width of the bars matter? There seems to be about 5 cm difference from dove to wide albatross. Or would some other bar be more advisable? The periscope would put the bar higher but is (in my opinion) less attractive than a roady-style stem like the non-deluxe technomic. Any thoughts on that from the health point of view?

Have you ever head that thumb shifters can contribute to hand/wrist problems? I can't tell if that's part of the problem too. Many thanks—*John Lindow*

**Forget about looks, just take care of your hands. Put on a Periscope or a DirtDrop 100mm stem and Albatross bars--the 56cm wide CrMo ones. Get cork grips, which are fatter, super comfy, and will spread the load more. Cut the grips down from the closed end, cutting off 15mm (basically the thickness of the solid plug at the end to free up more space in front of the brake lever, for another grip position. Use bar-end shifters to keep that area free, and wrap that part of the bar with tape, maybe cork tape, for padding. I haven't heard that thumb shifters contribute to or exacerbate CT problems, but bar-end shifters will be good. Twist-shifters, too. These things matter more than bar width.—GP**

## Another Hi-Bar Vote

I bought a Technomic stem and at first thought, no way do I need all this stem. I thought I only needed a little more height. The white tape on my bars was dirty only on the tops, so I clearly wasn't using the drops at all.

I put the new stem on, jacked it up to the point where it started to look odd by normal standards, and rode up the street. Wow. I couldn't believe I was on the same bike. I now ride in the drops a lot (the tape proves that), and my back doesn't hurt after a 50-mile ride.—*Name lost, letter real.*

## Head Probs

The data presented in the article "The Helpfulness of Helmets" by John Franklin (RR 33) points out that with increasing helmet use in the United States, UK and Australia, injuries to cyclists have increased, rather than decreased. Other data suggests these countries have high rates of cyclist fatalities compared to European countries, where helmet use is almost zero ([www.cyclehelmets.org](http://www.cyclehelmets.org)). Pedestrian deaths match this trend, indicating that the differences between countries are caused by differences in traffic patterns.

Franklin suggests that helmeted cyclists feel invulnerable and take more risks ("risk compensation"). It is difficult to empirically test this hypothesis. We looked into it and couldn't find any statistics on whether cyclists who suffered head injuries were wearing helmets or not. Accident statistics are meaningful only when comparing distances traveled (accidents per mile), and those distances are notoriously unreliable for cyclists ([www.kenkifer.com/bikepages/health/risks.htm](http://www.kenkifer.com/bikepages/health/risks.htm)). In the United States, there are other factors that can help explain the statistics—increased road traffic, more distracted drivers, and relying too much on helmets and too little on education.

The increasing promotion of helmets for cyclists in the U.S. over the past 15 years also coincided with profound changes in traffic: SUVs, pick-up trucks and minivans, which make it harder to see cyclists, handle poorly, and cause greater injuries in crashes than cars, have become increasingly popular.

Car advertising has shifted from luxury and status to performance, and aggressive driving has become the norm. Cell phones have become popular, distracting drivers from looking for the unforeseen, such as a cyclist or pedestrian. Add to that the increasing perception of cyclists as alien weirdos who should "get off the road" (who hasn't heard that from a passing pickup?) have all made the roads increasingly dangerous to bicyclists.

Compare this with Europe: Everybody cycles, "light trucks" are rare, cell phone use while driving is illegal, and drivers are used to watching for cyclists. Correct cycling techniques are taught in elementary school in many European countries. It is not surprising that in North America, cycling injuries could increase, and that North American cyclists try to protect themselves with helmets, while Europeans don't see this as necessary.

An emphasis on helmets at the expense of correct, defensive riding may also have contributed to the problem. The main causes for bicycle accidents are "beginners' mistakes." Riding on the wrong side of

the road, poor bike handling skills, night riding without lights, riding "invisibly" (hugging the curb, not taking the lane when appropriate, weaving in and out of traffic between parked cars). When limited bicycle safety resources are allocated to helmet promotion rather than rider education, then unsafe riding practices might increase, not because of "risk compensation," but through simple ignorance.

So what can we do? Encourage more people to cycle. Then the public will see cyclists as humans like themselves, with families who would miss them if they were killed. By riding considerately and interacting pleasantly with drivers, we contribute to such a perception. And we should ride defensively, and avoid "beginner's mistakes."

We both wear helmets because risk compensation can be offset by riding defensively. That a helmet offers protection when your head hits a solid object is hard to deny. But the problems of cycling safety go far beyond helmet use, and need to be addressed on a societal level.—*Jan Heine, Mark Vandekamp. (Jan is editor of Vintage Bicycle Quarterly; Mark is a Research Associate at the University of Washington.)*

***John Franklin noted, as Jan and Mark did, that more people ride and drivers are more careful when more people ride. But encouraging more people to ride is hard. People ride a bike when it has immediate, personal, positive consequences—like, they get there faster and don't have to deal with traffic or parking. Fitness and health are deferred (and so, weak) consequences. Benefits to the earth are deferred & weak & not personal enough to be strong motivators for most people. The feeling of physical exertion is an immediate consequence, but is positive only if you're fit, and many folks who don't ride aren't, and when that's the case, it just ain't fun.***

***I liked J & M's point about cell phones. I've been nearly hit by cell phone users several times, and no doubt most of our readers have, too. I'm for the European way. And remember rodeos in schools? Maybe it's time to bring them back—GP***



## Project Buffalo

### A bike for riders who weigh 350lbs or more.

Imagine that you weigh 350 pounds, or even more. Many people do—and they're among our membership, too. Aside from a handful of 60-pound industrial bikes made for hauling loads around acre-sized warehouses with flat floors, I don't know of any bike made that's appropriate for such riders. The frames aren't up to it, the wheels aren't up to it, and even pedals and cranks could use extra muscle.

It is especially important for large people to ride. Standing around and walking is hard on the joints, because their weight isn't distributed as it is when riding. Pools and gyms are not attractive options for overweight folks, yet it's critical to get some cardiovascular exercise, and to build up lean body mass, to burn calories. The best way, by far, is riding a bike.

After a few conversations with some of our heavier rides, we took on the task of building a tig-welded prototype, with the idea that we'd nail the design and then figure out the lugs needed. A nice thought, but it would require \$25,000 in lug tooling, and that nixed it. But we still had the prototype made. I designed the frame and Kirk Pacenti made it. He used the strongest, biggest tubes he could get. We ordered appropriate

parts, built it up, test rode it around the building, and shipped it off to one of our members to ride for a while, then passed on to another fellow.

Bummer about the cost of lugs, though. Since we couldn't afford that, I pitched this to Dwan Shepard, of Co-Motion.

Co-Motion does a great job with tig-welded tandems and singles, and has experience with and access to some monster-sized tubes, just what this bike needs. Developing new bicycles always takes time, but it seems Co-Motion is serious about this bike, and I'm betting something good will come of it within a year or so.

Although the working name for the bike, here, is "Buffalo," it's been called to our attention that large lesbians are sometimes referred to as buffalos, and so it might be offensive. We don't want any part of that. Dwan and Rivendell member/Co-Motion employee Alan Cline suggested *Bison*, and once the project is theirs, they can name it whatever they please—but *Bison* sounds good to me, and I bet that's what it ends up being. I've spoken with Dwan about the *Bison*, and he's moving on it. Slowly but surely. More about that on the next page.





To get the bars higher (to take weight off the rider's hands), we left the unthreaded steer tube long, and filled in the space with headset washers. This was also our way of paying respect to the ancient, yet time-honored practice, among certain tribal types, of lengthening their necks by the stacking of rings. Plus, we couldn't find a perfect picture of a buffalo on the internet. That was the main thing, the lack of a top-notch buffalo picture.



We needed a low top tube for a low standover height, to make it easier to mount. This bike is a 56cm, but we dropped the top tube about 3-inches. On the production model, it'll be lower still, and easier to mount.



The fork is a Co-Motion tandem fork with a disc brake mount. Disc brakes stress forks a lot, so the blades have to be super stout. Since this bike begs for super-stout forks anyway, we figured what the heck on the disc mount. We didn't put a disc brake on this prototype. The test rider lives in Minnesota, where it's not hilly. We did put one on the rear,

though. I imagine a production model, if it ever happens, would have disks on both wheels—at least as an option. A big rider going down a steep hill on a loaded up bike should have something more than skinny V-brake pads to slow the bike with.



There's nothing especially heavy-duty or "big bike-ish" about this derailleur, but we're showing it because it's a neat design with features you don't see all over the place. The cable pulls directly, no need for housing; this reduces friction. Not noticeably, but at least theoretically. The big, 15t lower pulley wraps up more chain than a normal 12t one, and allows a shorter cage because of it. Nevertheless, this is one monster of a rear derailleur. Shimano made it last year for expensive comfort bikes. Did I say it's a whopper? It is.

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## Design Issues

Ordinarily, stiffness isn't all it's cracked up to be, but it matters much on a bicycle designed to carry 350 pounds or more. So to make the bike stiffer, we had it made with tubing diameters that, compared to what we're used to, were huge. I forget the numbers, but I think the downtube is 34.9mm, compared to our normal 31.8mm; and so on.

To maximize the rear wheel strength, Rich here built a 48-hole nearly dishless wheel on a 145mm rear hub. The tires are key to wheel strength, too, and the Buffalo has 26x60mm Schwalbe Big Apples. The headset is threadless, oversized. The stem is a prototype Nitto clamp-on style, and the bars are CrMo Albatross. Ideally, they'd be 25.4mm constant diameter, but ours are that at the clamp, and taper immediately to 22.2mm—so they fit all the normal stuff. But some BMX parts are made to fit 25.4mm bars, and that would seem better. Semifamous Friend Kirk Pacenti (lug designer, seller) happens to be a crackerjack Tig-welder, and he built the prototype. He used a stock Co-Motion tandem fork, then brazed on the disk brake mounts. On this bike there's a disk in back, not in front. Probably a disk in front would be good, too—although I knew Chris wouldn't be going down any steep hills, living near Minneapolis and all.

—Grant

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

Our design will be similar, but with changes. All of the tubes will be larger. We'll likely use our telescoping seat post on it, with the lower portion will be 34.9mm, and the upper portion, 29.8mm. If we use this post, it will help us improve the standover clearance even more.

I think a rear disc is a great idea, but I'm not too keen on a front one, too. If we designed a fork specifically for a front disc brake, we'd have to sacrifice other fork qualities.

Other parts: We'll put together a package that's similar to the parts in our tandem kit, and offer the frame and fork alone, or as a complete bike.

Price & when: about \$1,540 frame & fork, \$3,070 whole bike

Anybody interested should contact me:

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# Buffalo rider Chris Hoffer says...

**Chris has 200x as many miles on the Buffalo as anybody else, so we asked him to review it in 200 words. This is what he sent, and it was hard to hack it down.**

I didn't even know they had stereos in operating rooms, but I was flat on my back in the operating room when the cardiologist was snaking a stent into my 39 year old heart, when a nurse turned one on. The cardiologist asked: "you like music?" as he began to sing along with "Maniac" from the Flashdance Soundtrack.

I knew then I needed to make some changes in my life.

The following day, July 17, 2004, I was discharged. I was using 80 units of insulin per day, my cholesterol was over 200, and I weighed 422 pounds. Yes, 422 pounds. I had to change my life.

The next week I started working out in the Cardiac Unit's fitness center. To get a baseline, I walked a mile as fast as I could, dragging my exhausted, sweat soaked carcass over the line twenty minutes later. After I was able to breathe normally, they told me the best thing I could do was walk, or "bicycle—if you can."

Bicycling. As a younger man I cycled quite a lot. I started with a red Schwinn Typhoon at about age five and never looked back. By college my friends and I rode bikes across Minnesota, me on a Trek. How that guy became the pre-corpse lying in an OR being serenaded by his cardiologist is a long story, but it started in Law School. Too many trials over too many years steepened the slippery slope. Drinking too much and eating like an idiot sealed the deal. Eighteen years after I first walked into Law School, I was a physical mess. I had not been on a bicycle for years, but the phrase "bicycle if you can" echoed through me.

A few months before I had talked to Rivendell about how much weight one of their bikes could handle. This call led to a discussion about the lack of availability of bikes for the really heavy, and how this group, with over-stressed joints and many medical problems, could benefit from cycling. The problem was finding bikes that were up to the task. Grant had been thinking about it, and I offered my bulk as a test rider if he was to ever delve further into the matter. I went back to work, getting ready for a trial, and didn't think much of it again.

Then came the afternoon when it felt like someone had parked an RV on my chest, and my subsequent musical entertainment by a cardiologist.

Out of the blue and shortly after my stent was placed, Grant contacted me and said a prototype bicycle was being sent to Kenwood Cyclery, a local Rivendell dealer, for me to ride and give my feedback. The prototype's working name was "Buffalo." I was down to Kenwood Cyclery in a flash to be fitted by John Coleman there.

Cycling, for these past months, has become part of my life again. I try to ride the "B4" (Big Beautiful Burgundy Buffalo) everyday, and I work out at the cardio center twice a day Monday through Friday, I walk daily—up to six miles on Saturday and Sunday. I've started tai chi classes, lift weights,

and now eat well, about 1500-1600 calories per day. Breakfast is no longer eggs, toast, hashbrowns and bacon. Now it's oatmeal with nuts and blueberries, or yogurt with toast and a schmear of peanut butter. For lunch and dinner, it's usually something like soups, sandwiches, pasta, and sushi. I drink red wine about three times per week.

How is the Buffalo? Visually, what strikes me most about it, is that the Buf looks like—a bike. This is not damning with faint praise. Think about it: this bike is being asked to carry more weight than tandems carry. The fact that it does not look like the love child of a mountain bike and riding lawn-mower is quite a feat.

The riding position is sensible with slightly raised bars. This is critical for heavy riders. Riding the drops is a non-starter for a heavy person—too much weight on the wrists and arms, and depending on the size of one's stomach, leaning over is simply uncomfortable.

The bike is a very stable mount. In the stability vs. nimbleness decision matrix, factoring in a four hundred pound rider going downhill, the nod goes to stability. That said, I often found myself swooping from curb to curb on residential streets just to feel the sensation of the quick turns. If I put playing cards in the spokes, I could be five again.

Problems? Just getting on the bike was initially a challenge. Swinging a leg up and over is just awkward when you are heavy. Most of you reading these words don't give a passing thought to getting on bikes. To gain some sense of this task for a heavy person, get a two hundred pound buddy to climb on your back. Now try it.

The best things about the Buffalo for me are twofold. First, I fell in love with cycling again. Riding a bike, rushing through the crisp Minnesota autumn air, made me feel light and alive. The sheer sensations of riding are so sweet. I still walk many miles per week, but it is, forgive the pun, just too pedestrian. A bike is freedom. Somewhere between five and forty years old I had forgotten that.

The other best thing about my days with the Buf are the results. When this saga began, I was 422 pounds. That was July 16. This morning, December 2, I weighed 321 pounds. That 101 pound loss has been transforming; I am off insulin, my cholesterol is 106 (with meds), and I feel fantastic. Biking, in conjunction with walking, lifting, cardio workouts, tai chi and eating properly, has been absolutely key. I could not have done it without cycling.

When I get to 275, I'm buying an Atlantis. There has been one other major factor, indeed the major factor, of my success in turning my health around; I fell in love with a wonderful woman. Could the secret of life be so simple? Could it just be to love someone and ride your bike every day?

I think it could.

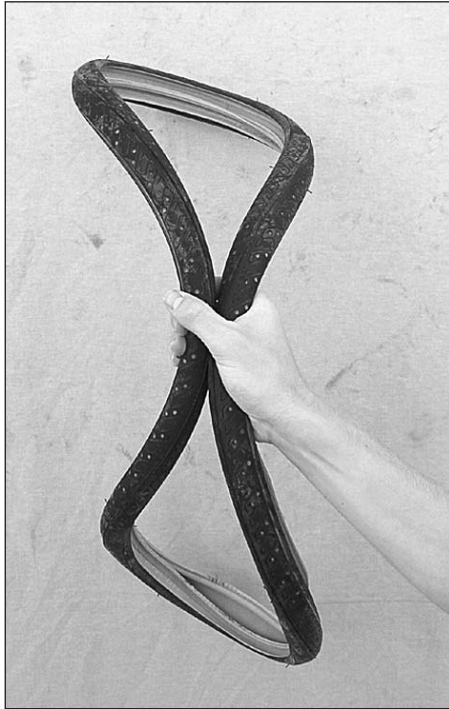
—Chris Hoffer



# How To Fold a Wire-Bead Tire

You hardly ever have to do it, but it comes in handy now and then, and since this is not the kind of thing you're likely to read about anywhere else, we thought we'd show you. If you have a tires around, do this fifteen times in a row, and from that point on, you'll never, ever forget how. Fifteen is the magic number, remembrance-wise.—Grant

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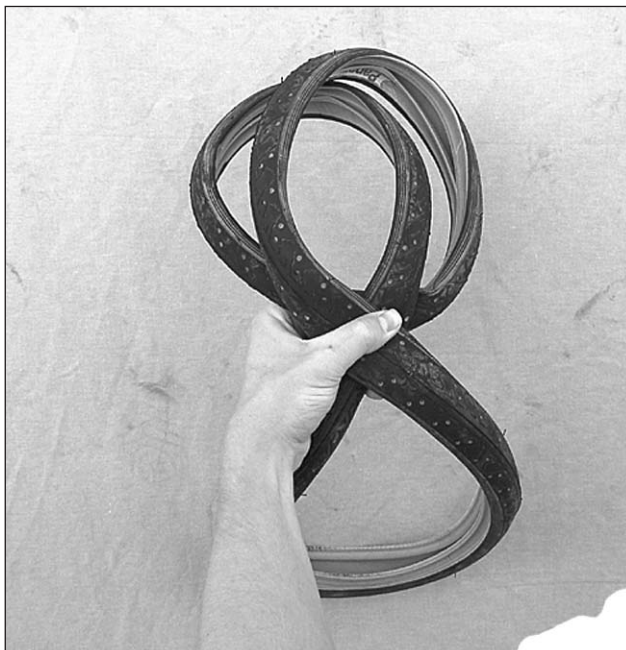
## Step One

Start by holding the tire out in front of you, at 9:00 and 3:00. Bring the 9 & 3 together in such a way that the 12 & 6 fall away.



## Step Two

Hold the 9 & 3 with one hand, and pull the 12 down behind them, so the tire looks something like this, a 3-loopy thing.



## Step Three

Lay one of the top loops over the other one, forming more or less a figure-8 with a double top.



## Step Four

Fold the top double-loop down and away from you, tucking it behind the lower loop and making a single, triple-decker loop. Now that's one fine looking steering wheel. (tie the top and it'll stay closed like that.)



# How To Fold a T-shirt

Friend Shawn showed this to us on a recent visit. He got it either from a Japanese woman in Hong Kong or Taiwan, or a Chinese woman, possibly in Japan. It is both useful and a fine parlor trick.



**Step One**

With the shirt face up and flat, pinch 1) the far shoulder, halfway between the neck and the sleeve seam; and 2) the body of the T-shirt halfway between the shoulder seam and the bottom hem.

Like you see there.



**Step Two**

With your right fingers still pinching the shoulder seam, lift the shirt up and cross it over to the lower hem (at the same latitude). Don't drop what you already have pinched, but pinch the lower hem (getting both layers) too. So now you have lots going on in your right hand.



**Step Three**

Keeping your pinches, lift the shirt and uncross your arms. Give the shirt a little shake, and it will flatten out, with one sleeve sort of hanging down toward Mother Earth.



**Step Four**

Flish the low-hanging sleeve away from you, then lay it down, and fold the shirt back on it to get a rectangular. Now you're ready to turn pro.

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—Grant, on behalf of the whole crew here.

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## Mixtes

Mixte (“mix-tee”) bikes are usually called “girls’ bikes” in this U.S., but in most cycling countries of the world women and men ride them, because they’re easy to ride and easy to get on and off, since their main feature is no top tube.

There may be a strict technical, historical, linguistical difference between a what somebody calls a mixte and what I call a mixte, but what I call a mixte is any bike with a diagonal tube (sometimes called a lateral tube) that meets the seat tube in the lower half of its height, or thereabouts.

The diagonal tube can be a single tube or two small tubes, in which case they’re called “twin laterals.” They can be straight, curved, or straight with a curve, and can stop at the seat tube, or continue, via two “lower seat stays” to the rear seat stays or rear dropouts. In fact, there are so many mixte variations that the old expression *there’s more than one way to skin a cat* is being replaced with the more PC *there’s more than one way to build a mixte*.

### What the mixte design does, good & bad

Mixtes are easy to get on and off, and easy to mount with a high load in back, such as a child in a carrier, or a bag of groceries in a basket. You don’t have to lift a leg over a high top tube, or swing it back and high enough to clear your rear-cargo. Even without the rear load, it’s easier to get on and off, and for lots of riding, especially urban and downtown riding, that’s a huge benefit.

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The drawback is that the frame isn’t as well triangulated as a regular “diamond” type frame, and therefore isn’t as laterally stiff. But stiffness has always been overrated as a frame quality, because it is easier to sell to an unanalytical public. For the record, the Glorius & Wilbury flex so little that I can’t even tell. In any case, a little perceptible flex is a small price to pay for the benefits of this design. But I can’t perceive any, anyway, and if I can’t, probably you, your mom, or your granny won’t.

But since the diagonal tube is longer than a top tube would be if it had one, and then, if there is an extra set of stays (for stiffness or brake mounting), there’s between 5 and 12 ounces of extra (but necessary) metal, too. *That’s ounces, not pounds.* And as a percentage of the total package—frame, parts, and you-da-rider, it’s still a small amount. I’d say it’s better to lose 12 ounces off a slightly pudgy human frame than to lose it off a bike frame that has no extra fat to begin with. Every tube on the Glorius and Wilbury frames is dimensioned correctly and there for a reason. A 56cm frame weighs about 5.5 lbs.

### Good Mixtes, Past & Present

There haven’t been a lot of what we’d call high-end mixtes, past or present, just a few. I’ve seen a Cinelli mixte on eBay. Mercian in England still makes one. Schwinn made a Paramount mixte, and Richard Schwinn’s current company, Waterford, makes one called the Diva—with lugs and all. And no doubt over the decades, many builders have made one-offs for their children, wives, and paramours and blackmailers, but these days when you try to fish one out, the pickings are slim. We’re happy to add to it with the Glorius and Wilbury.

I think the Glorius and Wilbury are the first (and will likely be the last) mixte frames to ever have a set of fine investment-cast lugs made just for them. Joe Starck built our first lady’s mixte from our cast lugs, but he had to cut them up and braze them back together in the proper geometry for the frame. One of the lugs had parts of three.

The new cast lugs save a lot of labor, but because of their detail and intricacy, they’re still much more labor-intensive to braze; and we’re proud to say they strike fear in the hearts of whoever paints them.

You can read more about the Glorius and Wilbury on the next pages. To the right, you can see three of many styles of mixte frames.



There has been much heated debate within these hallowed walls about whether this bike is a mixte or merely a girl’s bike. It’s a mixte to me, but I’m not a technically nit-picking bicycle historian. Anyway, it’s a lugged, 3-speed Schwinn, made in Taiwan sometime in the late ‘80s, most likely. It has 650B wheels, and note the straight-then-bent diagonal tube.



Low-flying bird’s-eye view of a Bridgestone mixte, with twin laterals. This is the more traditional way to make a mixte, and no doubt there are those who’d say, “No twin lats? No mixte!” Note that the lower seat stays join at the dropouts. Note also that if the chainstays were slightly longer, there’d a been room for a brake bridge behind the seat tube, for a centerpull. But this bike was made in 1987 or so, and centerpulls were considered old & funky back then. So Bstone had to loop the cable up. No huge deal, it still works.



A more common way to make a mixte, and the only drawback is that you need to loop the brake cable up along the seat tube, since there’s no bridge behind the seat stay on which to mount a brake. A V-brake in back would eliminate the S-bend.



A 56cm Glorius set up for comfortable, upright riding. That's an 11cm stem. You can set one up with drops if you like, just use a shorter stem. Ideally, this bike would have a wider saddle, but we didn't have any at photo-time.

## The Glorious Glorius & World-Beating Wilbury

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These are the best mixte frames ever made more than one at a time for a former first lady, and yet there's no way we'll sell even a hundred of them this year. It's because they're mixtes, and mixtes get no respect. All they are is fun and easy and extra comfortable, and among most cyclers, that combination generally gets snickered at.

Whatever you may think, the Glorius and Wilbury are about as anachronistic as bicycle frames get these days, and they build up into unbelievable bicycles.

### Riding Them

You can fall asleep on this bike within twenty yards, it is so comfortable. No matter who you are or what you're used to, this bike is instantly your mate. The riding position is chair-like in a good way, and the steering is soft and easy. If you want to be super comfortable on a bike, you will be on one of these.

A local non-bike rider woman who usually gets her exercise at the gym and by hiking in the hills got on the Glorius reluctantly and was won over instantly. She pedaled it easily up the hill she thought she'd never be able to climb. The upright position gave her confidence on the steep descent. She actually wanted to ride it again, and if you knew her like I do, you'd know that's saying something.

My wife and ten-year old daughter ride the prototypes on trails, and with the standard, non-knobby Panaracer Col de la Vie 650B x 38 tires. My sixteen-year old daughter, who has an Atlantis and a custom and rides at least 5 days a week, said it was the most comfortable bike she'd ever been on. Ex-Rivendell employee Andrew assembled the latest prototype, then took it for its first ride and said about the same. It is comfortable.

### Are They Slow? No.

Considering the kind of bike the Glorius and Wilbury are, it's perfect way to pedal, and the bikes are as frisky as you are. There's no excess weight, no cheap, heavy tubes to soak up the heat of a white-hot MIG-welder. These bikes are made with the same quality tubing and the same care as all of the Toyo-built. They are better designed and better built than 99 percent of the "pro" frames sold today. But they're made for a different style of riding, where comfort and ease of riding matter about a thousand times more important than maximum speed. As always on a good bike, when you pedal harder and faster, the bike zips right along.

### Stopping (and Slowing) Them

They have centerpull brakes, the classic style on mixtes, but we also considered cantilever and V-brakes. We have rideable samples with all variations, and decided on centerpulls. Centerpull



brakes work well, look good, and make perfect sense for this bike. With brake cable routing along the diagonal tube, the look is tidy, and the brakes work great.

The Dia-Compe Mod. 750 centerpull is truly, truly, honest-to-Buddha, I-never-thought-I'd-use-this-expression, an *oldie but a goodie*. If you have any memory of sidepulls at all, it's probably of them on crummy bikes in the '70s. Burn those memories now. If you don't have any memory of these brakes, then let me tell you: They were almost revered back then, and rare as chickens with earrings. When they disappeared almost for good in the '80s, throngs mourned, wars stopped for a week, and hospitals closed by the thousands, as a wave of spontaneous healing spread over Pangea.

The real fact is, when you set centerpulls up right with today's excellent cables and housing, you'll feel guilty for every bad thought you ever had on their account. They're plenty rigid, They set up easily and keep their adjustment. The clearances are ideal for semi-chubby tires and fenders, and their symmetry looks good. The mechanism is simple, and so easy to understand. There is no mystery whatsoever. It is a logical design trying to survive in this sometimes illogical time.

### Fendering Them

This couldn't be easier—even without our beloved zip-ties. The front brake reach (related to the fork length) allows you to use the fender tab on an SKS fender without modifying it to clear the tire or the brake arms. The rear fender is almost as easy and even more slick: There are fender bosses under the upper seat stay bridge and brazed onto the kickstand plate between the chainstays. So, if you venture out in the sleet, you can do it without throwing road spray all o'er yourself and the bike. The fenders on the bike shown are SKS 26x50mm, and they work perfectly.

### Racking Them

Two eyelets on the rear dropouts make racks easy. Use the top one—the lower one is for the fenders. In the Spring we'll have a Mark (our employee, Mark Abele)-designed mini rack that'll fit on the front or rear. But probably the most useful rack will be our part number 20-095, a Nitto-made saddlebag support. If you want to put an Adam or a Hoss on these bikes, it's perfect. If you'd rather go with a Kentucky-made Wald basket, it's even better than perfect. The bikes will take full-on rear racks, of course, and for touring that's the way to go. But for day rides and shopping and commuting, I'd just get the saddlebag support and either a basket or a Hoss (or Adam). They mount by zip-ties, and that is not a shame.

### Special Comments on the Seat Tube?

Yes. A normal seat tube has a butt (reinforced lower section) about 150mm (6-inches) long. But a mixte frame needs a much longer butt, because the diagonal tube is brazed to it, and you don't want to be brazing that tube to an unbutted section of a normal seat tube. So we designed and had made a custom mixte seat tube with a butt 340mm long (about 13-inches). Toyo will chop the butt to the appropriate length for each frame size, and the opposite end is 0.6mm., so these frames fit a 27.2mm seat post, just like our other frames.

This is a smart seat tube, and you can't just buy one like it off the shelf. But for this type of bike, it's the best way to go, so that's that.

### Coloring Them

We want to show off the lugs and details, so the only paint style option is Fairly Fancy, with every lug window filled in, and cream everywhere we've ever put it. From a distance, it's no big deal, but up close, watch out. We have two painters. Rick is the local fellow, 21+ years experience painting, and he does a superb job. Or for an extra \$300 Joe Bell will do it. His work is unequalled, and you pay for it. They're both buddies with us, and with each other. It's not Rick vs Joe, or anything like that.

### Three stock colors (with cream filling)

*Periwinkle*, a light bluish purple.

*Some Undecided Green*. With fine texture to it.

*Red*. Like a Ferrari fire engine.

Other colors run from \$50 to \$100 extra. The painters like to paint in batches by color, so they don't have to clean their spray guns, or something. That's why the upcharge for other colors.

### Sizing Them

**50cm:** For riders up to about 5-5 1/2.

**56cm:** For riders up to about 5-10 1/2.

**60cm:** For riders 5-10 to 6-3 or so.

### Naming Them

*Glorius* for women; *Wilbury* for men.

Even though *Glorius* has a masculine Latin ending, it sounds feminine, like Gloria and glorious.

*Wilbury* sounds like Wilbur, so makes sense for a boy's bike. There was a music group called the Traveling Wilburys. It's not named for the group, but being a bicycle, it is good for traveling.

### How To Get One

Ninety frames are coming in late March, and they're the only ones we're making this year. A non-refundable deposit of \$300 gets you on the

waiting list, and we'll ask for another \$400 before the bike goes to the painter. You pay the balance when it's back here from paint and ready to ship.

**Price: \$1400/frame & fork; \$2,600/bike**

That's more than most mixtes, but our goal with the Glorius and Wilbury was to make the finest, nicest, most well-thought out mixte bike we could. It turned out to be more expensive to make than we'd expected, but rather than price them where they ought to be, we're pricing them low to sell

them fast. It's not the most respectful way to treat such a special bike, but that's the way it is. If we ever do them again, they'll cost more. If you compare them to other frames on the market, the amount of work, the materials, the paint—you'll see that \$1400 is quite low.

In any case, we'll be getting them in late March, and they'll be painted in the order they were ordered. We should be shipping finished frames and bicycles sometime in April and May.



Seat tube decals. They're supposed to look like rings. The his and hers show on the back side of the seat tube, where nobody will actually see them, but the G and W are up front and proud. When you order two at a time, you save \$100 off each one. (Yes, his & his and hers & hers get the deal, too.)



## Our Standard Glorius-Wilbury Parts Kit

**When you order a frame, we give you a form showing this and all other options/upgrades, and so on. Give us till Jan 25 to get it all together.**

**Headset:** Tange Levin (\$25).

**Seat post:** Nitto Crystal Fellow (\$55).

**Saddle:** You pick.

**Stem:** Nitto Technomic Deluxe. (\$42) Use a long one.

**Handlebar:** Aluminum Albatross (\$50)

**Grips:** Cork (\$15)

**Shifters:** Shimano 8-sp bar-end shifters (\$60)

**Cassette:** Shimano or SRAM 11x32 (\$30)

**Derailleurs:** Deore LX Rapid-Rise rear (\$48); Shimano generic triple front. (\$35)

**Brakes:** Dia-Compe Mod. 750 (\$35). With Kool-Stop Eagle2 pads (\$25).

**Brake levers:** Dia-Compe Silver ones (\$25).

**Wheels:** 32-H Velocity 650B rims, rear is asymmetrical. SunTour front hub, Deore rear. (\$285)

**Tires:** Panaracer Col de la Vie 650x38 (\$56/pair) With 650B tubes (\$12/pr).

**Crank and BB:** The Sugino XD-2 with Shimano or Tange sealed bb to match. (\$155 combined crank and bb).

**Chain:** Shimano 8 or 9sp, depending (\$22 or so).

**Fenders?:** SKS 26x50 (\$38 or so).

**Subtotal for the parts:** \$978

**If we assemble it:** Labor, \$210.

**Kit total pre tax (in Ca.) and freight (UPS Ground):** \$1188

**Complete bike as shown here:** \$2,588. Yowza! That's a lot for a girl's bike, but what a bike it is!

### Reasonable Options and/or Upgrades

1. Brake levers: The Dia-Compe Blue ones (\$45) are super nice, and if the blue doesn't bug you, consider them.

2. Remember, this bike here, as spec'd, still has no saddle. Put on a B.17 or a B.67 (wider, with springs).

3. Ultegra headset? The Tange is fine, but if you gotta have sealed bearings & wanna save 1.5oz, get the Ultegra.

4. That's all. This is a great bike—it will last a lifetime with just occasional replacements of the wearables, and you can bet somebody will be happy riding it immediately and in 50 years.

We're also investigating some other shifter options. The bar-end shifters work great and are a fine choice, but super new riders might prefer one of the new Shimano styles that are even more no-brainer than indexed bar-enders. By the time you read this, or shortly thereafter, we'll probably have a bike built up this way, and on our website. So, if you're interested in other possibilities, stay tuned or call us up.

### DROP BARS ON THE GLORIUS & WILBURY?

Yes, just use a shorter stem. The missing top tubes are longer than the real top tubes on bikes designed for drop bars, but the upslope is greater, too—4.5-degrees, and that makes up for some of it. Then just use a shorter stem—a 7 or 8, when you might ordinarily use a 9 to 11. With a Moustache H'bar, surely a 7cm if you're a shorter woman. But don't, whatever you do, dismiss the Albatross bar outa hand because it seems too tame, and you're already using up your tame quota on the mixte frame itself. No, don't do that. The Albatross handlebar is ideal for the Glorius and Wilbury. It oughta be your first choice, and if it is, it will probably be your final choice. Unlike most swept-back bars, it offers you an extra grip just ahead of the brake levers, and that extra grip makes a huge difference when climbing hills or going all-out on the flats. Because of the sweep-back on the Albatross bar, you can probably easily use an 11 or 12cm stem, even if you...don't think so.

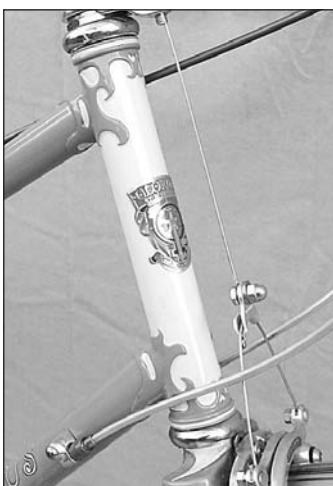




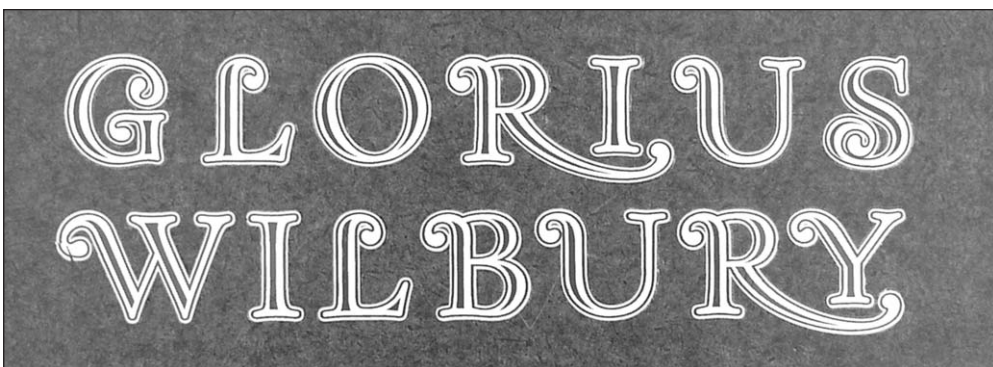
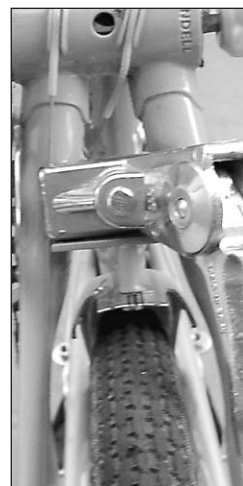
Here's an unfendered Wilbury, 56cm, with a 12cm lugged stem and otherwise a normal package. In this case, we put on a short cage XT derailleur and a 12x26t cassette. With the triple up front, you still get less than a 1:1 gear, and that'll cover you for all but loaded touring or the steepest hills.

**TUBING:** A custom-for-us mix from Japan's Tohoku-Miyata. We already told you about the seat tube. The other tubes are right out of the Rambouillet Pile. The top and down tubes have 0.8mm butts and 0.5mm bellies. The fork blade is 1.0mm, and tapers to a svuper svelte 12.5mm (custom for us, and it's the best fork blade made). It's all top-quality CrMo equal to any used for bike frames.  
**WEIGHT:** A 56cm frame = 5lb 7oz. The fork = 1lb 6oz. The extra stays and plugs and kickstand plate make it heavier than a non-mixte frame, but it's the best way to make the bike, and it's still a light frame. Not ridiculously, dangerously light, just normal light.

Too bad this this is black and white. However, if you want to see this and other photos of the Glorius and Wilbury in color, go to: [www.RIVBIKE.com/html/BIKES\\_MIXTE.html](http://www.RIVBIKE.com/html/BIKES_MIXTE.html)



**FAR LEFT:** Glorius 56cm head tube area. **Left and RIGHT:** Kickstand plate area from top (left, on an unfendered bike) and bottom (right, on a fendered one). We had special plates laser-cut then brazed onto the chainstays, perfect for kicksands. Then, onto the plate, we braze a threaded fender boss. As the underside of the upper seat stay bridge also has a threaded boss, and so fendering is easy as eating a country pie. The best fenders we've found for 650B x 38 tires—and they fit perfectly with the brakes, as though they were made for them—are the SKS 26x50s we sell (part number 27-002, \$38). They're 46mm wide, and snug inside the calipers without touching. If you want to get fancier fenders, just make sure they're no wider than that. We like these plasticky ones.



Final downtube art. The bikes won't have both—if you're a girl, yours will say Glorius, and if you're a boy, it'll be a Wilbury. I think these are nice-looking decals, but the black-and-white photo doesn't show them off well. You can see them better at [www.rivbike.com](http://www.rivbike.com)



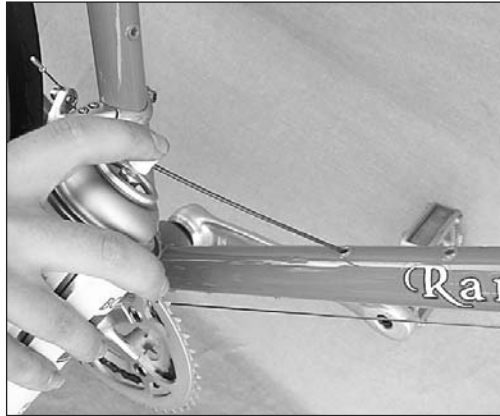
The Wilbury badge. The Glorius one looks about the same. The Latin translates to *suave country traveler*, and that's exactly what you'll be on a Wilbury.

## Rustproofing assembled bicycle

Steel frames last even without this. But if they could talk, they'd thank you for doing it. Use Boeshield Spray, FrameSaver, or your favorite anti-rust spray.



Seat tube and top tube. Remove seat post and you can get at both the top tube (you'll see the hole) and the seat tube. But not simultaneously!



Down tube. Most bikes have bottle holes here. Spray and tilt & turn the bike all around. Repeat.



Seat stays. Often there are brazing vent holes. Sometimes builders fill them in, but we don't. On this bike, see also the rack mounts.



Fork blades. Most real forks have brazing vent holes somewhere on them. Usually two per blade, one high and one low. Look hard!



Chain stays. Find the vent holes near the dropouts and spray away. It is easier, but not necessary, to take the wheel out. Same as fork blade.



Head tube. The least likely tube to thank you for spraying, but you might as well. Remove the stem first. Don't let it drip onto the tire.

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### Now that you're worried, what you can spray it with...

- 1. FrameSaver.** Framebuilder Peter Weigle developed or co-developed this cosmoline-based goop, and we used it for years, and it works great. The only reason we (I, Grant) stopped using it is because I was spraying 8 frames a week way back then, and slob that I am, I'd get it on my arm hairs, and I couldn't get rid of the smell. But if you're more careful and have to do only a frame or two or three (a can will do four to five frames), don't hesitate to use FrameSaver.
- 2. Boeshield T9.** Boeing's waxy and less smelly and sticky goop, presumably made for airplanes and not bicycles, but it works great. It's what we use here, because it's more slob-friendly. Also works as a chain lube.
- 3. Go to your hardware store.** There are a number of anti-rust sprays out there. They cost about the same as FrameSaver and Boeshield, so it's not like you're going to discover how much the bike industry rips you off for a "specialty" product.



## New and Incubating



The Robusto (top, based on a Brooks Pro) and Titanico (B.17). There will also be a third model, the Settebello, based on the Brooks Swift.



Side views of the same saddles. When Tom is in full production in the U.S., he plans to modify the frame slightly, and add another 1cm of usable rail, a good thing.

### Selle An-Atomica Split-Top Leather Saddles

Cycler & retiree Tom Milton is working on a new line of leather saddles (company name: Selle-An-Atomica) with slots cut out for—well, you know why they do that. He's sold about 110 of them so far, and up to now they're modified Brooks Pro, Swift, and B.17 models, which he calls the Robusto, Settebello, and Titanico, respectively. Besides the slots, he also offers options with thin leather laminates on the underside, to add structure to make up for the loss of structure when the slots are cut. Or, you can get the slots without the laminates for less money, but he says the saddles won't last as long without the laminate. There are three slot shapes, currently. Tom is working with old leather-molding firms in the midwest, to make the tops here (so he won't need to buy Brooks saddles); and with another maker for the rails and framing. The saddles come in a variety of colors, since he strips the Brooks saddles and re-dyes them. He's done a lot of work on this, and seems to have discovered how to make it work. Current prices range from \$59 to \$199, and supply is iffy. Currently, sold only through his website: MCMWIN.COM.

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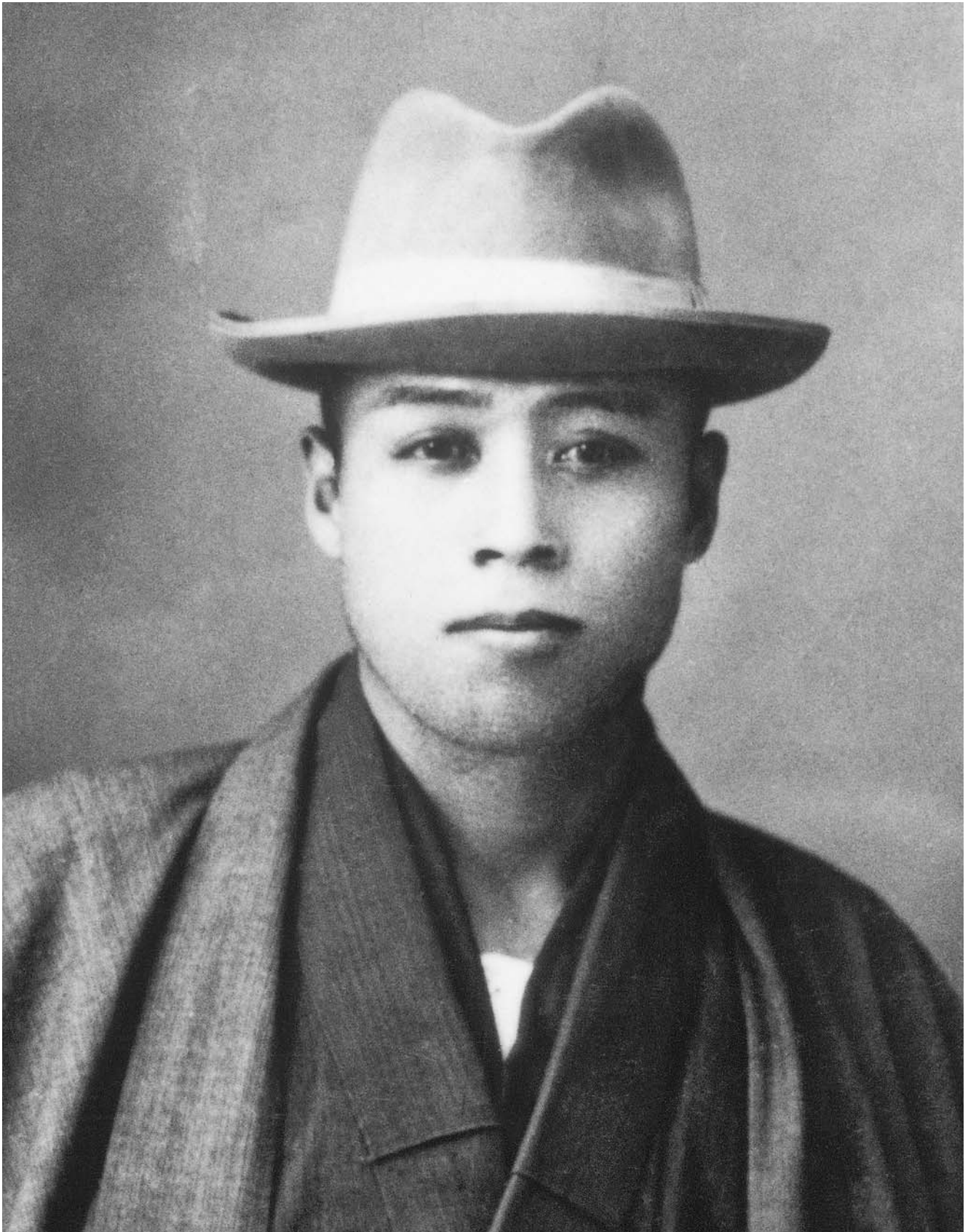


mudflap. But they're still noisy when debris gets between the tire and fender, and are still expensive. I think we'll carry them, but we aren't sure. The SKS fenders are pretty slick, quieter, and more adaptable.

### Honjouillet Fenders?

A Japanese distributor, Tokyo San-Essu, distributes some Rambouilletts over there, and being Japanese and close to Honjo, asked the fender-maker-to-the-kings to make some Rambouillet-specific fenders. Then we got some samples. There's also a hammered ("turtleback") version, not shown in this photo.

We have always had mixed feelings about Honjo fenders, and still do. On one hand, they are lovely and rigid and extremely well thought-out. And the problems with past models—adapting them to any given bicycle was always a challenge—well, this Rambouillet-specific one solves that. We like the full coverage—see how the front fender covers a lot more tire? That's good. You don't even need a



Shozaburo Shimano in 1921, the year Shimano Iron Works was founded. He was 27 years old.



If you've been around bikes for any length of time at all, you may have heard of Shimano components. But did you know that it's a family name? Do you know who started it, and what led him on that path? And the obstacles he had to overcome on the way? Read this and you will.

—Grant

## Shozaburo Shimano and the long ascent

Shozaburo Shimano was born in 1894, the first of what would be five children of Masakichi and Kuni Shimano. The same year, Japan went to war with China, and it was all too much, so Shozaburo was handed off to his paternal grandparents to raise.

He began school at age 5, but was a poor student and a frequent truant. At the age of eight, and after three years of bad grades and cutting, he quit school for good, and started working as a laborer in the fields. He was popular with the other worker children, but a handful at home, so his grandparents lateralled him to his aunt's family, the Yamauchis, who had a son about the same age as Shozaburo. It was with the Yamauchi family that he finally found his home and his place in the world.

Shozaburo and his same-age cousin, Kazuo, became friends immediately. Both worked in the family business, a metal shop, where they discovered they liked and were good at cutting and shaping metal.

When they were 15, they'd gained enough skill to be hired as apprentices to a local knife maker, and a year later opened their own knife making business. Business must not have been booming, because after only a few months, both Shozaburo and Kazuo went to work at the nearby Takagi Iron Works, where they learned more metal skills, including how to work a lathe. After three years, Shozaburo became a journeyman lathe operator, and in the interest of expanding his metalworking skills, left Takagi to work at yet another metal shop. This job-hopping was helpful to Shozaburo, as he always did good work, and his increasing network of business associates and friends helped his own stock. That, plus he was learning new skills and refining his existing ones. By 1914 and at the age of 20, Shozaburo had long grown out of his incorrigible years as a child, and had become a young man with good people skills and good metal skills.

Shozaburo and his friends were fascinated with metal, and talked about it constantly, at work, at home, or just out and about. Shozaburo had strong opinions, was vocal about them, and was always well respected.

His immersion in the world of metals was giving him a good education, but he was poor, and often borrowed just to get by and buy food. History records that he always paid his debts.

In 1918, the 24-year old Shozaburo got a job as foreman and lathe operator at Daikatsu Iron Works, a bicycle parts maker. The same year, and largely because of the good reputation he'd won in the community, his mom and dad invited him back home to live. If it were I, I'd have said, "Too late!" but Shozaburo was delighted, and moved back home.

It was a good thing he moved back home, though, because within 3 years, a post-WWI depression forced the closing of Daikatsu Iron Works, and the young whirlwind and metal whiz was again out of work. But he had a place to stay, at least.



The original sign for Shimano Iron Works, made at the time of the company's founding, in 1921. It is stamped sheet metal, about 4 feet tall x 8 inches wide, about 4-inches thick around the edges, and roughly 7- to 8-inches thick down the middle (approximately the shape of a Clark bar). It is now kept at Shimano's world headquarters in Japan.



But by now Shozaburo had learned plenty and had enough experience that he was dying to make stuff on his own. So in 1921, he and friend Ichimatsu Koizumi rented 900 square feet, borrowed a lathe, and formed Shimano Iron Works.

At first they got work by walking a cart through town to pick up broken-down machine tools to haul back and fix. It was a bare-bones existence the first year, but by the end of year two things had picked up enough to hire four employees and buy more machinery. That's when Shozaburo got the bike bug.

### The Twenties

Actually, he'd been thinking about bikes for several years now—at least since his job at Daikatsu, the bike parts maker. So Shozaburo and Ichimatsu started making 1-speed freewheels. The rear derailleur would not be invented until 1937, sixteen years later.

Shimano freewheels sold well in the Osaka area, but Shozaburo knew then there was more potential than that, and within a couple of years, he was traveling to Tokyo and Nagoya to try to sell them. Tokyo suffered an earthquake in 1923, and the local freewheel makers were out of luck, so Shozaburo had instant customers.

Still, the best freewheels were the British BSA (British Small Arms) brand. BSA's logo was three crossed rifles (not arms), and Shozaburo thought he needed a logo too, so he copied the BSA one, substituting halberds (spear-like weapons) for the rifles. And at the same time, Shozaburo and his partners knew that Shimano freewheels weren't as good as BSA's, and they were obsessed with finding out why. After months and months of long hours, late nights, and countless experiments, they discovered the secret was in how they were heat-treated. After more experimenting, Shozaburo and crew discovered the right process, and success followed. Shozaburo was fanatical about



One of the early freewheels. Shimano still makes single-speed freewheels.

improvements, not just in metallurgy and finish, but just as much in machinery and process. He was nuts for efficiency and quality, and designed lathes and developed processes that insured consistent, high quality freewheels that his customers could trust. By the mid-'20s, Shimano Iron works was housed in a 2,152 square-foot factory, had 30 machines, and more than 50 employees.

Despite Shozaburo's efforts and progress in the '20s, the depression in 1929 hit hard, freewheel orders fell dramatically. He had to borrow money from relatives to pay his staff before closing the doors.

### The Thirties

But he kept working on ways to improve, and within a year had recovered enough to make 60,000 freewheels—well down from a high point before the depression, but pretty high considering the economy. At this time, early '30s, Shimano began exporting freewheels to China and Southeast Asia, and by 1937 had re-emerged as a company with 130 employees, 80 machines, and a 270,000-square foot factory in what remains the current headquarters site. Then China and Japan went to war, and the government made Shimano use some of its manufacturing capacity for the war effort. Still, by 1939, the factory was able to make just over 100,000 freewheels.



The early logo, borrowed from the 3-rifle logo of early rival Birmingham Small Arms (BSA).

### The Forties

Business was booming, and Shimano was growing in size and reputation. In 1940, Shozaburo decided it was high time to incorporate as Shimano Iron Works, Ltd. Then the War happened.

World War II caused another drop in freewheel production, as the government again made Shimano allocate a large portion of its production capacity to making bombs and other war-weapons. Then in June of 1945, our American fathers and grandfathers dropped bombs on Japan, destroying a 5,400-square foot factory east of Osaka, and left the area in rubble. Manufacturing capacity was reduced to almost nothing.

At the end of the war, Shozaburo was depressed, and had no choice but to close down again and lay off his entire staff. He was so sad that he stayed in his room at home all the time, and for almost two years following the war, hardly ever even went outside. People had no money for bikes and just weren't into them. They were riding dilapidated bikes with rope on the rims, because there was no rubber.

Then management, which presumably included Shozaburo, tried to sell refurbished 3.3.3. freewheels from the bombed factory. They told buyers they were "reconstituted" freewheels, so there was no decep-



Assembling 3-speed hubs and, presumably, band brakes in the early '60s. Shimano still makes 3-speed hubs and band brakes.

tion, but the freewheels didn't hold up, and for a couple of years there, "Shimano" meant mud.

But bicycles were still the cheapest way to get around, and after the war-damaged jalopy bikes finally wore out, the bike market rebounded with unprecedented demand for new bikes—which of course, needed new freewheels. And after the defeat in WWII, the government was afraid the manufacturing industry would be crippled, perhaps leading to another depression. So it encouraged factories that made war weapons to switch over to consumer products, including bicycles.

In 1946, Shimano added its second component—bicycle hubs. Following that, complete bicycles. Shozaburo gave some money to his eldest (18 years old) son, Shozo, to start his own business, which he did in December. The government's allocation of raw materials favored makers of complete bikes, so to take advantage of the law, young Shozo started The Shimano Bicycle Company.

### The Fifties

Shimano Iron Works absorbed The Shimano Bicycle Company and with the raw material allocations restrictions discarded, that was the end of the bicycle division. A new company was formed, Shimano Industrial, Inc., and was back to making bicycle parts, but business wasn't good. The bike industry was in a slump, and Shozaburo was tending more to the industry, trying to figure out how to help it, than to his company. He became a key figure in the promotion of bicycling in Japan, holding lots of titles in various organizations, among them the Japan Cycling Association. But one thing he did accomplish for the good of his company was cold-forging. It was a breakthrough that improved quality and efficiency, and was key to future Shimano products. One of those products was an external (not internal) 3-speed hub. It helped sales a lot for a few years, but the



Shozaburo's oldest (of three) sons, Shozo at 30, the reluctant President.

cycling environment in Japan, and the high cost of bikes (about twice what a young, 20-something employee made in a month) kept business and bicycle riding down. On top of that, most of Japan's major roads were unpaved.

The Korean War ended in 1954, and although that was a good thing overall, it hurt the Japanese domestic bike industry hard. In the years



preceding it, the government had required bicycle makers to produce set quotas of high-quality bicycles and parts (to help the war effort); but with the war over, bike makers were now on their own, and many closed down for good—including five of Shimano's best customers. Shimano was near bankruptcy, and couldn't get bank loans. Finally, Shozo Shimano, Shozaburo's oldest son (then 26 years old) saved the company by securing loans from many of the company's good customers.

Shozaburo died in September, 1958. He was 64 years old, and his company was in trouble. The bike industry was shocked by his death, and honored him properly for the work he'd done, and Shimano Industrial appointed his oldest son, Shozo the new president. He was 30 years old.

Shozo didn't want to be the president, but nobody else wanted to, either, so he took the job under the condition that he could quit with no ruckus if he couldn't turn the company around in 3 years. His challenge was to get people off their mopeds, motorcycles, and cars, and onto bikes. Up to that time, bikes had been transportation, but they weren't as fast or easy as motor vehicles, so the only hope of succeeding would be to promote bikes not as work vehicles, but as healthy, recreational vehicles.

That inspired Shozo and his younger brother Keizo to develop the Shimano 3-speed hub which made it easier to pedal up hill. At the same time, they were modernizing their factories and processes to increase efficiency, and some of the process changes caused a rift between the younger workers there, who welcomed the change, and the older guys, who preferred to concentrate on craftsmanship. Through the diplomatic leadership of Shozo and Keizo, both sides were able to work together, and the company became stronger for it. By 1960, the 3-speed hub was a raging success, people were riding bikes more than ever, and internal company issues were all fine.

### The Sixties

One of Shozo's strengths was promotions, a big part of which was listening to customers, and educating the sales staff, dealers, and bike riders themselves. That's the same kind of things Shimano still does, but back then it was unusual for a manufacturer to take such a leadership role.

With continued success and refinement of its cold-forging processes, Shimano now had the manufacturing

capacity and know-how to export bike parts to America. They set up a sales office in New York and sent two guys to work there—Shozaburo's second son, Keizo, and a fellow named Torao Kawamoto. Their goal was to get the Shimano hub onto the high-volume, mass-market American bikes, namely Huffy, Roadmaster, and Columbia.

It was tough, because Japanese parts had a bad reputation then, and the American companies were closed-minded about Japanese hubs. Keizo and Torao priced the hubs at \$5 each, but the Americans offered only a dollar. Shimano didn't cave, and didn't get the business.

Since American bike makers wouldn't spec the hubs, Shimano decided to get them onto Japanese bicycles, and sell the whole bikes to America. Hub sales were up for use on Japanese bikes for the home market, and the hubs had proven to be reliable. In June ('63), Shimano struck a deal with Columbia, and from that point on there was much less resistance to Japanese hubs.

In the early and mid-'60s, stingrays were the rage in America, and Shimano wanted in on the trend, so it established Shimano American Corporation in 1965, to help collect market information to send back home.

Shozaburo's youngest son,

Yoshizo, could speak English well, and was named President. Shimano's monthly production of the 3-speed hub was a whopping 100,000.

As always seems to be the case shortly after a success, sales began to fall off a cliff, and Shimano had to respond. Those of you over the age of about 45 may remember that during the height of the Vietnam War, there was a new interest in lighter-weight, multi-gear "English racers" and ten-speeds. Shimano jumped on that trend with its first model, the 3.3.3. The competition at the time wasn't British, as it was with the hub-changers, but the French company, Huret. By the late '60s, Shimano had a 60/40 sales lead over the Huret Allvit rear derailleur. The lead wasn't entirely due to superior function—the Allvit worked well—but due in large part to a willingness to do business.

### The Seventies

1970 was the year of the first Earth Day in America, one of the catalysts of the Bike Boom. By now, Shimano had grown in capacity and reputation to take advantage of the huge demand for bicycles. SunTour was there, too.

Shimano, under the leadership of the three brothers



Yoshizo Shimano, July 1965, upon being appointed President of Shimano American.





Shimano's first rear derailleur, the 3.3.3. Introduced 1965.



Shimano's first indexing derailleur, the Positron (1974). The indexing was in the derailleur body, not the shifter.



Shimano's first "pro" derailleur, the Crane, part of the first Dura-Ace group in 1973. There was never a "Crane" anything else, just this. It shifted better than Campy's best, but didn't index.

(Kozo, Keizo, Yoshizo) were formidable competition for anybody, and a breakthrough came in 1973, with the introduction of Dura-Ace. Up till then, the only complete groups were from Campagnolo and Zeus. Japanese stuff had always been sold piecemeal. But Shimano was changing its positioning and strategy.

Campagnolo still had better finish and details, but Shimano parts worked as well, and in some cases, better. Shimano sponsored a successful pro team in Belgium, Shimano/Flandria, and within a year or two, Shimano parts had finally gained respect among racers.

The early '70s were fertile and productive at Shimano, with improvements, refinements, and innovation happening at unprecedented rates. In 1975 Shimano introduced its "systems" approach to the bicycle world, and three years later (1978) came out with the Dura-Ace EX and 600 EX component groups. By this time, Dura-Ace's reputation had been totally made over. Campy still had the edge in prestige, and some Campy parts still had a better finish and details, but from a purely mechanical perspective, Shimano was the leader.

Ironically, the real news at Shimano wasn't at the top end, but one

notch down, at the 600 (now Ultegra-level) group. This was the first time a complete group had been made at less than a wealthy chap's price, and for the first time you could buy a mid-priced bike that worked as well or better than Campagnolo. What they gave up in finish and long-term durability was made up for in price—for \$450 you could get a bike that worked great.

### The Eighties & Nineties

The confidence & competence Shimano accrued in the '70s lead Shimano to introduce its least-successful and most controversial groups ever, the aerodynamic Dura-Ace AX and 600AX.

The brakes were tiny and odd-looking, had minimal clearance, and didn't work as well as Shimano's normal sidepulls, and all in all the feeling was that Shimano had gone too far. The groups had quirks that the still-conservative racing community wasn't ready to accept. These AX groups had a market life of a couple of years, and then Shimano went back to normal.

Then in 1981 the mountain bike boom hit. Yoshizo Shimano reported it to Osaka from America, and Shimano studied and ramped up for it. The first successful mountain

bike group was SunTour's XC, which came out in 1980 (or so, really close to that). Shimano followed in 1982 with its Deore XT group, which borrowed indexing from the road groups, and added ruggedness and a different look. The commercial success of Shimano's indexing and the struggles of SunTour at the time resulted in Shimano taking the lead in mountain bike parts, and nothing's changed since. By this time its Dura-Ace group had evolved in finish to be equal to Campy's best, and in function they were better. By the late '80s, Shimano parts were regarded by most cyclers as equal or better than Campagnolo.

In recent years, Shimano has branched out into easy-riding commutable bike parts and groups, has "groupified" low-end parts so that beginning riders with small budgets can have a good experience.

Shozaburo's early success at the Iron Works was built on his drive for better products, more efficient and better manufacturing processes, and his personal reputation. Behind the flash that we know as Shimano today, the core principles and practices remain the same. Shozaburo would fit right in, still.



# Interview with Kozo Shimano

## President of Shimano American Corp.

**GP:** What does “Shimano” mean? Not in the big sense of the word, I mean the characters.

**KOZO SHIMANO:** Well, *Shimano* has two characters. The first is *shima*, which means “island,” and then there’s *no*, which means “field.” So I guess it means “island field,” like a farm in Japan might have.

**GP:** When Japanese people hear Shimano, do they hear the name, or do they think “island field”? When an English-speaker hears the name “smith,” they think of it as a name, they don’t think of a blacksmith, so I was wondering.

**KS:** I think they hear the name. But the name means something. But I was raised in the US, so I’m not fully immersed in Japanese culture.

**GP:** I’m just curious: How does *Shozaburo* translate?

**KS:** *Shozaburo* is written with three kanji (characters). I am not sure of the first character, *sho* but the last character *ro* is part a name that is typically given to boys, like in the names *Taro* or *Jiro*. The middle character, *zabu* is the same character as the number 3. This character has been passed on to his sons Shozo, Keizo, and Yoshizo—it can also be pronounced as “zo”. Numbers are typically included in a boy’s name to indicate ‘age amongst siblings’ - *Ko-ichi* for the first son, *Ko-ji* for the second son, *Ko-zo* for the third son, and so on. But the Shimano family does it differently. Every male descendant of Shozaburo has the number ‘3’ (‘zo’) in his name. For instance, my name is “Kozo,” but I am the oldest.

**GP:** How much Shimano history do you know, how old are you now, and how old were you when you realized that your family’s business was so colossal?

**KS:** I know an interesting mix of family and corporate history. A handful of people know more family history, and a handful of people know more corporate history, but my knowledge of the two is unique. I learned it growing up, from what I’ve read, from what I’ve experienced, and from talking with my dad, my uncles, and with coworkers who worked at Shimano so long.

**GP:** Most of what I know about Shimano’s history, I read in the Shimano 70th and 80th anniversary books. Have you read those, do you ever come upon anything in them that you didn’t know?

**KS:** Well, I was one of a few who proofread it and set the type, so I guess I know everything in those books. As for how old I was...it’s been part of me since I was born. It’s always been there. But it’s never been as big as it is now. In the ‘60s, we were struggling to export overseas, and in the ‘70s our business grew because bicycle sales took off in America. Then in the ‘80s it was mountain bikes. And in the ‘90s, everything else.

One of the interesting things I remember growing up was I always felt that other people, like my friends’ dads, had more interesting jobs. I thought a friend’s dad who worked for the NY Yankees was great, because he got tickets to the ball games. And, someone whose uncle owned a music shop had lots of musical instruments. I just saw my dad go to work and come back, and I knew that we sold bicycle parts. But I never fully realized what the family business was about, which is kind of nice, because it let me have a normal childhood.

**GP:** You don’t have any accent, from growing up in New Jersey or for being Japanese. How is your Japanese?

**KS:** (Laughs) It’s good enough to get by. In the right environment I can

pass as a native Japanese person, but I feel more comfortable in the US.

**GP:** When did you realize that you’d work at Shimano? And how old are you now?

**KS:** I don’t know when I realized that. I’m 42. Growing up, it was more a matter of — What do you want to do? What do you like to do? What are your strengths and weaknesses? I was never told, “You are going to work in the family business.”

**GP:** How many siblings do you have?

**KS:** I have one younger brother. He works in the business, and there are also two cousins and two second cousins who work here, all male. Women marry and become part of their husband’s family—it’s part of the Japanese culture thing, you know.

**GP:** What was your first job here, and what were the entry requirements? Was your position inherited?

**KS:** Well, as I’ve said, I grew up in the US. I think I was 3 years old when my dad moved the family from Japan to Jersey, to start Shimano American Corp., based in New York at the time. It was basically a sales office to sell to parts to Huffy, Murray and Columbia bikes. So I went to public school in New Jersey, and to Johns Hopkins for college. I graduated with a degree in biomedical engineering, and wanted to work somewhere other than Shimano as my first job. So I worked at Asics, the shoe company, for about a year or so, working to start their bicycle-related products. They were interested in entering the cycling market, which they did for a few years. I worked there for about a year, and when Shimano made the decision to enter the footwear market, I thought it would be best that I leave Asics and work for Shimano.

But, it was decided at that time that if I was going to work at Shimano, that I would have to start at Shimano headquarters in Japan. That was a big decision for me to make at the time, and I decided that I would go to Japan to work. And I had my choice of where to start, and my choice was to start in the bicycle R&D area. I have an engineering degree, so I was qualified to work there. I started as an entry-level R&D engineer, just like anybody else would have. My last name didn’t hurt, but I think I’m well qualified.

**GP:** If you weren’t here, working at Shimano, you would have been in bioengineering?

**KS:** Not *bioengineering*; *bio-medical*. It’s slightly different. I think it only matters if you’re in one or the other. Yeah, I think I’d be involved in bio-medical, some kind of sales or marketing job that requires a technical degree. That’s what I enjoy most.

**GP:** What is biomedical, anyway?

**KS:** Biomedical engineering involves artificial limbs, for one thing, so it’s almost like being a doctor. I have friends who went to medical school and became doctors, and one of the overriding reasons for them to become doctors was that they derived satisfaction from helping other people’s lives get better. And, that’s kind of like what we do at Shimano.

**GP:** What other hobbies do you have besides cycling?

**KS:** Golf, ice hockey...softball—any kind of competitive sport, watching and playing. Photography, too. And I like things I can do with my wife and children. And fishing, which I don’t get to do often enough,



maybe once or twice a year. Fishing is interesting, because although it may seem solitary, for me it's a social hobby, because I usually go fishing with somebody else. And it's a good way to spend quality time with kids, family, or with customers, business relationships. I like that. We used to have a company baseball team, which sounds good, but it took up entire weekend days, which are family time for me.

We have a Shimano basketball team, and an ice hockey team, too. We're in a league.

**GP: Are they deferential to you, when you're on the rink? Is there hard checking? Does anything get—**

KS: —oh, there's incidental contact, but that's about it, and I'm just one of the guys on the team. The chairman of Sun Microsystems has his own hockey team too, and when he's on the ice he's just one of the guys. That's the way it's got to be. When you get back to work, yeah, there's a difference.

**GP: What is a particular skill or strength that helps you in your daily work? And what did you learn at college that helps you here everyday?**

KS: What is my strength? I guess I see myself as the person that bridges the cultural gap. The folks in Japan see me as Japanese, until I interact with non-Japanese people, and then they say, "Wait a minute, he's American." I think it's my knowledge of both cultures that allows me to bridge the gap—the marketing gap, the communications gap, and the gap between engineers, scientists, and non-technical people, too. I am able to almost understand what a non-technical person thinks. It's difficult, but I'm getting better at it. Another one of my strengths is keeping the peace between the cyclists and the non-cyclists here in the U.S. office. It's good to nurture the two distinct groups, but you don't want any infighting amongst the two.

**GP: What would they fight about?**

KS: Marketing plans, sales plans, ideas on products. The non-cyclists have different opinions from the cyclists, and if we're designing something like Dura-Ace, or XTR, we defer to the cyclists. But further on down the line, it becomes more of a recreational product. You can't always listen to the person who's riding XTR and Dura-Ace, but they're the ones who have final say. That's what they argue about.

**GP: Aha. That explains a lot. I think. It explains why the recreational road groups are just cheaper versions of the racing groups, with the same crank bolt pattern and gearing range. I think it would make way more sense to have a 110 big bolt circle—on any crank, I think, but especially at the low end. The guy who's looking for a \$500 road bike—it's a good bet he won't be happy in the hills with a 39 x 25.**

KS: Well...in a perfect world, that would make sense. But in the real world there is no guarantee that a person who buys Dura-Ace or Ultegra has the legs and lungs to use them, either. That's the difficulty in designing product. It's not fair to pigeonhole people into certain categories, based on those two criteria.

**GP: But if you went to a 110 pattern, it would satisfy the needs of all the cyclists. And every crank maker except for Shimano now offers one. You can still put a 53/42 on a 110, if the fit racer in Florida wants that.**

KS: But there are other performance characteristics you lose out on by using those large chainrings on a 110mm bolt pattern.

**GP: Like what? Chainring flex?**

KS: Yes, and deflection. When you get up to Dura-Ace and Ultegra, that

becomes a concern. Then it comes into the part of, OK then we have tooling for two types of crank arms. So these are all business decisions that we have to look at carefully. We haven't ruled out doing the compact drive, but you have to balance the pros and cons. One factor that comes into play is image. Meaning, you see Lance Armstrong riding a Trek bike with Dura-Ace, that's got a 53/39 on it. So, when you decide you want to buy a road bike, because "I want to be like Lance," you want to go buy a bike with Dura-Ace, with a 53/39.

**GP: Okay...**

KS: Now, say a person decides he's going to ride a bike because he saw Lance on TV, and wants to ride just like him. He's going to want the same bike, a complete replica. It can't be, "well it *looks* like his bike...but somehow it's *different*."

**GP: I don't know about that. Do you think that guy at home watching the Tour is even tuned in to his chainring sizes?**

KS: It's not a matter of whether he knows the difference or not. It's the look, the aesthetic. So that person—he or she—is going to want a bike that looks exactly like Lance's bike. In that case, I can see that person saying "OK, well, I live on a town with a hill, so I'm never going to make it back home. So I'm going to put this thing in my car, and go somewhere where it's flat. Take the bike out of the car and ride around." That could happen. I mean, where I live, there is no flat land. It's either uphill or downhill. So, I've learned to be able to ride up certain hills, or know where the easier hills are.

**GP: What gearing do you ride?**

KS: Right now I'm going back between a 52/39 and trying some compact drive cranks to see what the difference is.

**GP: Well, you're the perfect candidate for a 110 or a 110/74. You and hundreds of thousands of others.**

KS: I've ridden lower gearing. It makes me feel strong, because I can go up hills that I couldn't before.

**GP: Well, just based on the last five minutes here, I predict that you will make a 110 within two years. It's not as though you haven't done it before, with all those mountain cranks in the '80s and '90s. So, even without you coming out and saying "Yes, we're going to do it." I see some good news there, and you don't have to address that.**

KS: Like I said before, we're still looking at doing it, and we haven't made a decision one way or another.

**GP: Well, when you make it, please just make sure it's a 110, not an "almost" 110, like Campy did, with the hidden bolt offset just enough to require a Campagnolo chainring.**

KS: (Laughs). Well, if we do it, it's going to mean designing specific chainrings again. So. It's not something we can do overnight. There's a lot more to chainring and cog design than there seems to be when you just look at a crank. You have to design it so that when the shift occurs, the chain is placed exactly on the next chainring. When it doesn't match up perfectly, that's when you get the chain slippage, and then you get the spinning and the uncomfortableness when you get jolted. That's what really goes into the design of chainrings and cogs, making sure the rollers go exactly into the valleys of the teeth.

**GP: But you've made tons of 110's before, with all those mountain bike cranks in the '80s and early '90s.**

KS: Right, we have. But we've done it for a 48/38/28, and a 46/36/26, and when we develop cranks, we look at how the chain moves from one specific-sized ring to another. It may seem unnecessary to do that,

*I am able to almost understand what a non-technical person thinks. It's difficult, but I am getting better at it.*

and I know other makers may not, but it's how we approach the design, and I think it makes a small difference. It's a funny thing—you try hard to make something work perfectly, and the closer you come to perfection, the harder it is to notice. But you'd notice it if the shift wasn't as smooth. So we're careful, and sometimes slow. But there's more development going on behind the scenes than we let on about.

GP: I respect that Shimano has a higher standard, but saying that you're pausing on the compact crank "for further study" sounds fishy, given your history, skills, and so on. It can't take *that* long.

KS: Well, if you're an experienced cyclist, there's a way that you can adjust your pedaling and your shifting so it works. I know our reputation is so much as the high end and in racing, but we're looking out for the person who hasn't ridden a bike in ages, who just wants to hop on a bike and go. He or she is not going to know to ease off the pedals during the shift. We watch out for those riders, too.

GP: And those are also people who often have the money to buy the top end stuff.

KS: Right. And I think that's the appeal of our parts. I know, Grant, that you're into the "simple is better," and for us, what we look at is, simple for the rider. They don't have to worry about anything.

GP: Well, yeah, you know...I don't draw a line as hard a line as people think. I think of myself as a moderate.

KS: Well, I think your take on simpleness, and mine are different, but we're seeking the same result. Your version of simple is not to complicate the bike with all these gadgets. We want our parts to work equally well for anybody. We want to take the bike out of the equation, so the bike is something that they don't have to think about. Which is kind of like what you're saying—have the shift occur, have the brakes work. And they shouldn't have to think: "OK...I need to stop way up there, so I should start braking way back here." Or, "I'm approaching the hill and I'll need a low gear to get up it, so I should downshift before I actually need the gear, because if I wait that long I won't be able to shift." That whole entire thought process, we want to take out of the equation. You just go out and ride. And that's what we seek.

We want to make the bike quieter, so you can enjoy nature and not have a noisy bike—so you can enjoy what you hear other than the bike moving. As you're riding, you can think about things other than what to do on the bike, which is one of the reasons why I like to ride. It helps me think out things at work, or at home, when I'm by myself, and I don't have to worry about what to do on the bike. The bike is just something that you ride. And that's what we seek to do—help people enjoy the ride. And not have to worry about the bike.

GP: I think the scenario you paint about pre-planning the braking and shifting is a bit of an exaggeration, but I get your point. From my point of view, though, being a "bicycle rider" implies a certain amount of skill that comes with experience, and once those skills are in place, the "human-to-bike interaction" becomes a satisfying part of the experience—sort of like manually advancing the film on a well-made camera, or—I imagine—slicing raw fish, or rolling sushi, or chopping wood. It shouldn't disappear, at least not in all cases. I don't require a bike that disappears *that* much.

It's like the technological capabilities have advanced to the point where using the tools dumbs us down as bike riders. Before radio, a lot more people could sing and play the piano, and before the knitting mills, more people could weave and knit. It's tempting for manufacturers to advance the technology as far as they can, because that's what manufacturers do, and it's what we expect them to do.



Left: Unidentified man exiting restroom.  
Middle: Kozo, grandson of Shozaburo  
Right: Nervous interviewer, with watch.

But as Shimano, you also have the ability to make the finest, purest parts ever made, and I'd just like to see you keep those things alive.

KS: That's quite a speech, Grant, but I think you're slightly off base. If you look at our line, you'll see we cater to beginners and advanced riders. There are people who don't like automatic shifting. So there are all of these different interest groups, just like people who make frames—Rivendell and Colnago and others, do. In the case of lugged frames, the lugs are an artistic element that some people appreciate and some might not. Lugs have been around forever. But now, you're getting people who enjoy tig-welded frames, or titanium. Take somebody like Mr. Colnago—I don't think he can ever look at a tig weld and say, "That's beautiful." But to others, it is, and to some people molded carbon frames are beautiful. It's in the eye of the beholder.

GP: I understand that, and I know the world of bikes is big enough for all different styles, and I'm also glad that bigger makers are not attacking our market. So it's sort of an interesting thing; we're out there championing and cheerleading lugged steel frames and all that, and yet, it's sort of like the organic farmer, you know, who says "Hey, everyone should be doing this." And then when Safeway starts selling organic produce, he squawks because he's not the main source anymore.

Anyway, on a related note, do you remember a Shimano fishing reel from the '80s, called the "Technique Master"? It had a computer chip and an electronic motor that "automatically applies a bobbing movement to the line, reducing fatigue by freeing the fisherman from manually bobbing the line. It allows everyone to fish with the same technique as the pros." Is Shimano approaching bicycling in the same way, sort of taking the user out of the equation?

KS: Well, that reel was sold only in the Japanese market, and it serves a purpose for those people that want to go out and their main thing is not fishing, their main thing is just catching a fish and bringing it home to eat. There are all kinds of fishermen, and that reel was designed for just one of them.

GP: When I read about that reel, it wasn't clear to me that you were just targeting just a very specific market, namely the non-fisherman market that simply wanted to go out by a lake and catch dinner. There was another fishing reel, called the Calcutta 200. It was simple, but it was introduced sometime maybe around 1991 or so, and at the time I heard it was Shimano's response to criticism over its "over-technological" reels, with computer chips, and so on. That's

what I'd like to see happen in at least one group of components.

KS: Well, let's talk about that. The Calcutta was introduced around the same time as the original XTR components were introduced. It was a traditional looking bait-casting reel, but it was basically to design to be the best reel in that category. That's what the original XTR was. We wanted to design a mountain bike group that, if cost was of no concern, how good can you design it?

GP: But with the Calcutta, you still had to know how to cast, to thumb the spool lightly to get your distance without getting a bird's nest, so in that sense it wasn't...well, it wasn't, like your modern groups tend to be, where sure, they're user-friendly, but the user never learns any skills beyond pushing buttons.

KS: Right. Well, that's, I think XTR is the same way, where it's state of the art, it's actually designed for the enthusiast or the high-end rider, but if you were not one of those people you could still buy the group and ride. Same with the Calcutta reel. It's state of the art, but if you were not at that ability, you could still buy the reel and try to figure out how to use it. And I think the version we came out with last year, which is the DC, which stands for Digital Control, we've embedded a computer chip inside the spool that somehow controls the free spooling of the reel. So it's a little bit more difficult to backlash. But it also helps the enthusiast by freeing up the reel more — there's less resistance, so you can cast it further. So there's something there for the beginner and something there for the enthusiast. And that is quite an achievement.

GP: There's a fine-line difference, though. I'm not as familiar with the reels as I am with the bike stuff, but from what little I do know about them, they don't take over as completely as the bike parts do. I know it's important to attract new people to the market. I'm not saying, "let's make the hurdles high so only determined athletes with no other recreational options will ride bikes." I'm just saying make one group for riders who want the quality and looks of your best stuff, and some of the advancements—Hyper glide, for instance—but want to have a little more hand in operating the bike than, say, electronic shifting gives them, or indexed-only shifting. I think my main thing is keeping the friction option alive, as it is in the bar-end shifters.

KS: I think that's one of those things that, it's just a difference of viewpoint on what is state of the art, and what isn't. I was talking with the folks from Discovery Channel the other day, and we were talking about technical advances in bicycles. The group I was speaking to have recently become cyclists, so all they know are dual-control levers and indexing. They were simply amazed when I had to explain to them, "Oh, back in the day, the shift levers were not inside the brake levers. The brake levers were just brake levers. And you actually had to reach down there to the down tube to shift, and fish around until you found the right gear." They were dumfounded, thinking, "Why would anyone want to do that?" So, we look at the bicycle as a whole, at the riding experience. So, yes, if we put our mind to it, we could probably design better downtube shifters, yeah. But, then you have to ask yourself, "do we really want to do that?"

GP: Well, it's all really a matter of perspective. The original derailleur came out in 1938, and anybody who squawks at having to reach to the down tube to shift should try a seat-stay mounted 1938 Campy derailleur sometime, because that is truly difficult. And people even raced cyclocross on them. I think our ability to create labor-saving devices has gone beyond the "help" phase and is now fostering a generation of people who grow up increasingly dependent on technology to replace simple skills. It's not at the point where

it threatens the survival of the species, but it affects the survival of cultural practices and attitudes. The shift is happening in all fields, but the only one I have even the faintest hope of influencing is bikes. And, to that end, I would love to see Shimano make a Dura-Ace quality manual group that didn't target the Discovery folks.

Do you think there is there a point at which the tools we use to enjoy nature no longer make a contribution? What I mean is, how good does something need to work, and how much should it do?

KS: That's something that we've always struggled with over the years. When you come out with a new product, an innovative product, how much better does it need to be, or should it be? And, it's kind of hard to say, because—well, say we came out with new brakes that work 10 percent better than current brakes. Ten percent is probably on the cusp of—of not being able to feel the difference. So, consumers will look at it and say, "Why get that? It's just same as the old one." So that brake won't be successful. But what if we make a brake that's so much more effective that the braking feel is different? Some people won't adapt. And they'll crash. So where do we draw the line? You have to hit it right on the mark.

GP: Okay, let's move on. Do you ever go into bike shops, and if you do, do you pay with plastic, or a check, or cash? And if you pay with plastic, does the salesperson ever see the name on the card and make a fuss? What's it like for a Shimano to go into a bike shop?

KS: Oh, I've had different kinds of various experiences going into bike shops. They are on the front line of sales, and what they hear from the consumer is fact. During your days at Bridgestone, when you filed market reports with the head office—

GP: —I never did that. That was a problem?

KS: Well, we do, and we send those reports to the head office in Japan, and discuss them at the office here. And every so often, there'll be someone in the crowd who says: "No. That's not true." And I say, "I'm not debating what you think. I'm telling you what people are saying. I'm just reporting that fact." There's really no discussion. That is the fact.

GP: How do you collect the information? Do you query the bike shop employees?

KS: No, it's more informal than that. I'll walk into a shop, see what kind of bikes or shoes they have, what accessories...how the accessories are displayed, how the shop looks, and things like that. And then I would try and compare that with other shopping that I do, personally. I go into sporting goods stores and clothing stores, to see how that compares. It's more of a comparison, not true market research thing.

GP: And you can trust it? Even though it's a random sampling, and so informal and subjective?

KS: Right. If you do enough of it and consistently hear the same things, I think it's reasonably trustworthy.

GP: Okay, but now get back to the recognition issue, like when you pay with a credit card, do you get recognized?

KS: Well, every so often, they'll look at the name and say: "Oh look, it's the same name as the bike parts." And I'll say, "Yes, it's part of the family." And they go, "Wow."

GP: And do they say to other employees, "Hey, come over here, meet a Shimano?"

KS: Sometimes I get that, sometimes I don't. This past September, I was in a bike shop in the Washington, D.C. area, talking to the folks in the

*The fellow looked at my business card and all of a sudden it seemed like he had trouble getting words out, so I helped him along.*





Marisa, Katherine, Martha, Man in Sunglasses, and Melanie.

shop. They didn't know I was in the industry, and they asked what kind of bike I ride, what I'm looking for. I said, "I'm just looking around." I walk around the shop for maybe half an hour. I happen to know the name of the person who owns the shop because I've done some research, so as I'm leaving I give them my card, and say, "Can you please give this to so-and-so?" The fellow looked at the card and all of a sudden it seemed like he had trouble getting words out, so I helped him along and said, "Oh, I thought I'd come by and look at the shop. I heard you guys just opened, and I wanted to see your shop." And he got his breath back, and said "Oh, okay." Things like that.

**GP: How is it for your family? Your wife, for instance.**

KS: My wife and I've been married for about two years now, and she's still amused when people are amazed by that name. She started Pilates classes, and her instructor noticed the name. She thought nothing of it. But then, after awhile, she said, "I've got to ask. Is that any relation to the bike company?" She goes, "Yes, as a matter of fact, my husband works there, runs the office." Her instructor says, "Oh, that's so cool. We use all that stuff."

**GP: Do you have any children?**

KS: Yes, two daughters, and one stepdaughter.

**GP: And, how old are they?**

KS: Melanie is 14, Marisa will be 11. And Katherine, my stepdaughter, is 11. And my wife's name is Martha.

**GP: Will any of them ever work here?**

KS: I've left that open for them. I think they're too young to know if they will or not. But if they do, they'll probably be the first female Shimano family members to do that. I hope we're past the cultural

issues that would rule it out. It would be interesting, the clashing of the cultures.

I think my ex-wife was not comfortable with the fact that the family was involved with this business. So she wanted to separate the family and business life as much as possible. So they haven't really been exposed to what Shimano's all about.

My stepdaughter, Katherine is only starting to feel it, so it's hard to say if she'll grow into it also.

**GP: It's hard to separate business from home life, if you're really into the business. In my case, I have one of the few 10-year old and 16-year old girls in the country who notice even on a passing glance, whether bikes have lugs or not. Anyway, which Shimano parts are you most proud of, and why?**

KS: I think the dual control levers are one of them. Because that was something everyone said could not be done, when it first came out.

**GP: That happened in '86? '85?**

KS: Late '80's, I think it was. In '87 or '88, something like that.

**GP: Let me tell you my recollection of that, my interpretation at the time. And I am open to being corrected on this. In 1986, the Shimano mountain bike levers were the four-finger levers. You know, the sort of modified motorcycle levers, big levers. And that year, the hot thing was "two-finger" levers, like BMX riders used. The popular one was the Dia-Compe Tech-5 model. People were using the Shimano shifting, but with the Dia-Compe levers. And what I heard is that Shimano had huge stocks of unsellable 4-finger levers, and then the next year, coincidentally, the lever and shifters were integrated, so you couldn't use Shimano shifting without the Shimano brake lever. How far off is that?**

KS: I think that there are two different ways to look at that, one negative and the other positive. I think with—when I'm talking dual levers, I talking about the original Dura-Ace. But with the mountain bike ones, while we were developing them, there were two problems we wanted to solve. One, we had to reduce the weight, because we couldn't get it as light as thumb shifters. And, one of the ways to do that was to eliminate the band, and attach it directly to the brake lever.

The other problem was that alignment became very critical, where the shift-levers were placed. If it wasn't placed in the right place relative to the brake levers, you couldn't reach it. So another point was to be able to place that in the right position relative to the brake levers, was to attach it to the levers so the rider couldn't put it in the wrong place.

If it's taken in a negative context, yes, Shimano wants you to buy both. But in the positive context, we did that to make the product perform better. That is the way we look at it.

But the dual control levers for the road is, to me, one of the most important things we've done. Another is Hyperglide-type shifting in back, with the chainrings with the pickup teeth in front. I'm combining that with SIS—indexed shifting—because to me it's one and the same. Even back then, we were reaching a point where there was a whole generation of people that had grown up never knowing what it was like to use friction shift levers. Now, we're getting to the point where there's a generation of people that don't even know what downtube shifters are. I think that's an advancement. Few people understand what it was like to watch a black and white TV set, or have a rotary dial phone, or having to walk to the TV set to change the channel. Those kinds of things are such advancements that you can't comprehend what it was like before they existed.

GP: Yeah, but, just because you can't comprehend what it was like doesn't make them advancements. I mean, eventually there will be 15-year-old kids who won't be able to comprehend what life was like before video games. And so, that in itself is not—

KS: —well, that's not good. You know, there are things that are not good. But in looking at it from a cyclist's point of view, to me—well, one of my personal favorites is the dual-control levers. It just changed the way people ride bikes. I mean, you can shift while you're standing. You can't really shift while you're braking, but you couldn't before anyway.

GP: You don't need to. How many of those "advancements" were made necessary by indexing? What I'm getting at is, friction shifting is more tolerant of non-Hyperglide cogs, and chainrings without pickup teeth and ramps. I agree the chain and cog interface has improved dramatically, and I know this wasn't the goal, but it's also helped friction shifters, a lot because it's—

KS: —it's interesting that one kind of helps out the other. Because with STI-type shifting, mountain or road, you're out of the saddle a lot of the time, and if the shifting's not smooth, you're going to straddle that top tube soon, and this gives you peace of mind, allowing you to shift whenever you want. So to me those are good advancements. I mean, for road bikes, SLR braking was something that was hard to comprehend when it first came out, too. But I guess most people take that for granted now. One of the unsung heroes is the aerodynamic component group that we came out with in the early '80s. A lot of people pooh-poohed that. I mean, it was a little too far ahead of its time.

GP: Yeah, the timing was wrong. I bet if it came out now it would be a hit. The thing I liked about the AX was the pedal, how it sat lower.

That made so much sense. I had it on three bikes, and the guys I rode with used them, too. But I guess they had their problems.

KS: The problem was that they weren't a standard size. You had to get a specific crank for those specific pedals.

GP: But that's sort of the direction that Shimano's going now, with the Hollow-tech 2 cranks, with the integrated BB and spindle. And that brings up the question, how much thinking about, or how much thought or concern do you have for backwards compatibility?

KS: Backwards compatibility is a big concern, but at some point you have to make a decision—do you stay tied to the compatibility issue, or is the advancement great enough that it's okay to go ahead on your own? And I think with the Hollow-tech 2, with the bottom bracket, usually the buyer buys both at the same time, so we think it's okay.

GP: That brings up inter-brand compatibility. When Shimano first started exporting to the U.S., that compatibility was common. There were some unworkable combos, but an amateur home bicycle mechanic could piece together perfectly functioning drive trains using two or three or four brands. I remember my race bike, in the late '70s, had parts from thirteen countries and seven makers, and it worked perfectly—by the standards of the day, at least. How much do you think about things like inter-brand compatibility when you design components?

KS: We license our technology to companies, so they can use it if they want to.

GP: OK. Are there any parts that you or your dad would like to sort of, pluck from you history? You've made so many parts, and some flopped. What do you wish you hadn't made?

KS: It's not just my dad. There are uncles and other family members involved too. But to answer your question, no—I don't really think there's anything that I would like to have NOT developed, because developing products helps to make you smarter. It's like the old adage that if you don't make any mistakes, you're not learning anything. And that's our belief. If you don't take risks, there are no rewards, and you're not finding your limits. There are probably products out there that, maybe it was good to develop them, but they weren't ready to bring to market.

GP: Are you talking about the 14-cog cassette of a few years ago?

KS: Its one example. We thought that was the limitation of the current design. It's something that may not necessarily make it into the marketplace, but we've patented it. But what I'm thinking of is the "Airlines" group, with the air power shifting. I personally looked at as an exercise on the development prowess of Shimano, but somewhere between the development of it and bringing it to market, there were too many compromises. It sold, but not as well as we'd hoped, but as a company, we were proud that our employees were able to develop it. Kind of like what Honda does in their internal design competitions, where they allow employees to design products that are not necessarily Honda products, but are advanced products, like robots and other items that they can come up with, other ideas. They're not necessarily going to market with these products, but it shows the intuitive thinking of many of their employees, which I think is good exercise.

And five or ten years ago, I was heavily involved in a shifter for mass-market bicycles—Pacific, Huffy, Roadmaster, and so on. The thing I learned from that was that you cannot make too many compromises to come up with a product that's workable for everybody. Because by the time that we put in everyone's ideas, the shifter was a huge beh-

*I don't think there's anything that would like to have NOT developed, because developing products helps to make you smarter...if you don't take risks, there are no rewards, and you're not finding your limits.*



moth of a product, and looked ugly. It worked OK, but it was not what people were looking for. So, you can't regret making mistakes, because you can learn from them.

**GP:** Let's talk about comfort bikes. Shimano is focusing a lot on them, but how big is the market for high-end comfort bike parts?

**KS:** Well, with those products, it's basically to show what can be done, like Dura-Ace, or XTR. But with the high-end comfort components, we're trying to approach the non-enthusiast cyclist, and it's a learning process. The potential there is great, because you're looking at a US population of, what, maybe 280 million, only 100,000 to 200,000 are bicycle enthusiasts.

**GP:** But the thing that'll get people onto bikes is places to ride safely, not better-working parts. That's what I think, anyway. "Here's a bike that shifts itself, but you still gotta pedal it seven miles through traffic" or whatever. Do you ever feel like you're going up against an infrastructure that is so geared toward the car and so against the bicycle that no matter what you do with parts, it's not going to matter? The statistics that say that 85 percent of all car trips are 5 miles or less. But for somebody who rides a bike, 3 miles to the store is a big deal. If you're going to do 4 days worth of shopping to go to the store, a 3-mile trip feels like more than it sounds, and most people won't do it. The payoff to the planet seems to be minor and distant compared to the immediate challenge of pedaling the bike.

**KS:** Right, so we need to create a better environment for bikes, so it won't be so challenging. That's where organizations like Bikes Belong, and the LAW, come into play. Because they are supposed to look out for the interests of the bike industry. But many companies don't support these advocacy groups, because they're saying that they don't want to get involved in politics. But you've got to stand up and say your piece, or you'll never get your way.

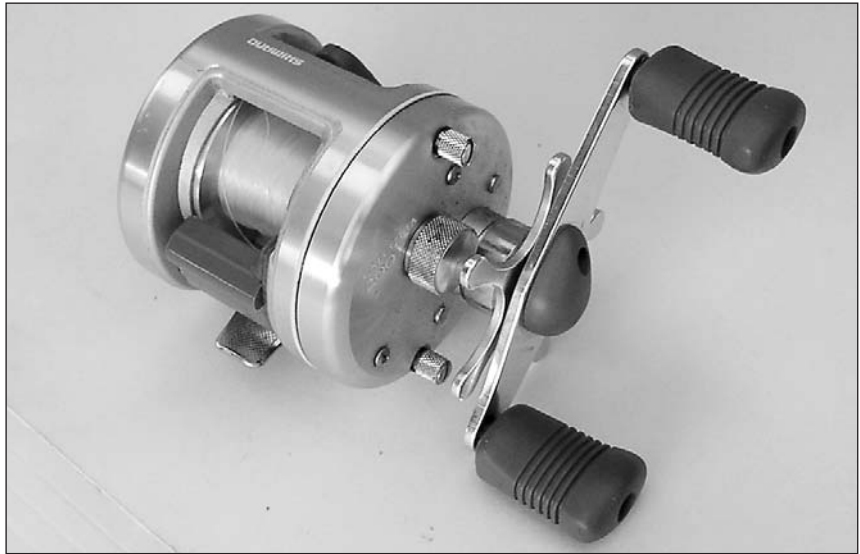
**GP:** Some of the bike advocacy groups have what—well, what some people think of as radical agendas, where they're trying to get bike access to everywhere. Bikes Belong is a good organization, but do you think bikes belong everywhere? In the wilderness, for instance? I think that since bikes are machines—and increasingly high-tech ones at that—they don't belong in pristine wilderness. I'm concerned that when bikes get to the point where they weigh ten pounds and have three-inch tires puffed up to 25 p.s.i. and electric assist so any slob can pedal into the faraway alpine meadows to have a party, that's what will happen. The best way to keep a place pretty is to keep people out of it, and I'd hate to see bikes become the vehicle of choice for people who don't belong there.

**KS:** Of course not, but that's not my point. I'm not saying, "Everyone—go ride Yellowstone! Go ride Yosemite!" If everybody in Los Angeles went to Yosemite over the weekend, it would kill the ecosystem. My point is, we need a more bike-friendly environment for everyday riding, and like the idea or not, politics is a way to get it.

**GP:** Okay, I get it. Now, on a lighter note, is the bike market in this country declining, flat, or increasing? And in which segments: road, mountain, comfort, commuting, recreational?

**KS:** I think it's slightly increasing right now. Everyone's enthusiastic about the market, and I just hope sales go along with the excitement.

**GP:** Sales have been around, what, 13 million bikes per year for the last 20-something years? 12-13 million per year? Here's something



You can't just skim through, looking at photos and reading captions. This makes sense when you read the actual interview. Now, what we want, is a bike-group equivalent of this level-wind fishing reel, the Calcutta 200.

I've wondered about. If you're a big company like Shimano—you're making super good stuff, these are durable goods that are made to last more than 10 years. But you can't have that happen—it's the same way with a big bike company like Specialized or Giant or Trek. If you're Trek, you've gotta build 650,000 bikes a year or whatever they're up to, and yet it's a flat market. It's like you're a cobbler on an island with 100 people who wear sandals all year round or go barefoot, and you've already supplied 100 pair of sandals that'll last for ten years, so what do you do next? For you, for Shimano, what is the ideal replacement or upgrade schedule?

**KS:** Well, before I get into that, let's go back to the bike sales figures you cited. Yes, it's maybe 12 to 13 million, but only about 3 million are sold through bike shops, and the rest come from mass merchants, department stores, and so on.

**GP:** And those bikes have changed a lot in the last few years. Now they have Shimano parts, and Schwinn labels on them, and things like that.

**KS:** And they're made in the same factories, basically. So they use one less tube of CrMo, and fewer coats of paint and don't have a clear-coat. But it's the same guy building them.

**GP:** Well, let's get back to the topic here, the "ideal replacement schedule." What is it?

**KS:** I'm not sure. Pros use a group or two during the Tour, and sometimes they'll replace them even faster because they don't want any failures or mis-shifts. It's hard to say exactly how long something will last. It depends on use. As for the schedule, it's not like a car company where they say OK, every three years we're going to come out with a new model. It's more like, what is state of the art when we introduce it, and can we design something better? If we can, then we do. There really is no set timetable for our products. It may seem like there is, but there isn't. Of course we'd like riders to buy a new group every year, but we don't make it any less durable, to encourage that. That wouldn't work, anyway. So, we're looking at ways to expand our customer base, and to help get more people riding bikes.

**GP:** One solution, at least long-term, might be the China market. You must have your eye on that. Will Shimano develop lines for traditional Chinese bikes, or are you betting that China will become westernized and like the same parts as everywhere else? And is the

western-centered bike culture a good thing, or just inevitable? Is China your biggest potential for growth?

KS: The Chinese market is by far the largest market, but in China they ride really low-end bikes, at least by U.S. standards. I think it'll be easier to get more people to ride in the US, than it is to sell more bikes in China. So the potential for sales I think lies in the US, but to realize that potential, we have to figure out how to appeal to people that don't ride. Everybody rode a bike as a child, but most give it up as they get older.

GP: Well, there are lots of reasons people don't ride, but one of them has to be urban planning. Commutes are long, and cities aren't all that bike-friendly. We're not in Holland, you know. But, another thing—and this is something that sort of crept up on me over the last several years, and right now it's sort of at the boiling point. I think people who don't ride bikes go driving down the street and see cyclists all costumed up, and it makes cycling seem too foreign to them. There wouldn't be that gap if the cyclists were dressed like you and I are now, and just happened to be riding a bike. The message they get is, "You can't just ride a bike. You have to change how you dress, too." They go into a bike shop, and the sales people say, "Well, you want to be efficient, so you gotta have the shoes, you want to be fast, so you need the tight clothes, you want to be seen, so your clothing should really stand out." There's also the fear factor, where they have to get the cycling clothes just to be safe.

KS: Well, I think the bike industry, as a whole needs to address the concerns of people who are not riding. If you go into a bike shop, and pretend that you know nothing about bicycles, the kid in the bike shop is not going to wait on you, because he thinks you won't spend any money, or not enough money. Try that sometime, Grant. Go into a bike shop and pretend you know nothing. It's quite an experience.

GP: I have done that. I usually feel a little bit guilty for taking the time. When I go into bike shops, the things that I look at are things that are, you know, a little. I look at a lot of the bikes, and I see that the front brake, the pads are at the top of the slot, and the rear brakes they're at the bottom of the slot. And if a spoke breaks, the wheel's not going to roll. I look at that, and my blood boils and I just have to leave. So I have a hard time going into bike shops. I know that there are some good shops out there. But we're getting off track. Let's go back to China and that market. I heard the Chinese government is discouraging cycling, and that cycling in China has declined by 70 percent in the last five years. Do you know that to be a trend, or have you heard anything that would corroborate that?

KS: I haven't heard that directly. But what you say makes sense, because as countries become more and more developed, they tend to go away from bicycles to other modes of transportation. And, when you travel throughout Southeast Asia you can see countries in various stages of progress. They go from walking, to bicycles, to scooters, and finally to cars. It's a problem, that bikes are perceived as not advanced.

GP: Your grandfather helped popularize bikes for recreational riding, in Post WWII Japan, didn't he?

KS: He saw that the future was in cars—for carrying loads and general travel, so he wanted to help develop a recreational use for bicycles. He helped promote the idea that bikes could be fun, recreation—yes. The three-speed hub helped a lot, as you may know.

GP: Let's change topics now. If the market were growing explosively, what effect would that have on product development?

KS: That's an interesting question. I've never thought of it that way. I guess it would speed development, because there's more revenue. But if there's less revenue, there's less money to put back into development of product.

GP: But if it were growing in leaps and bounds, wouldn't there be a tendency to put more effort into sales and less into product development? It seems that way.

KS: That would be the easy way out. But sometimes it's not the best way. Maybe that's why some other companies have not succeeded in the past, but I think it's a matter of generating excitement for the product. Not going to the store and buying it just for the sake of buying, but going to the store and buying it because that's what you want. And that kind of excitement is, I think, what Shimano's all about.

GP: How were you affected by SunTour's fall, in the early '90s, and how did that affect product development? And does Shimano right now have enough competition?

KS: I think we have plenty! It's a competitive market right now, so we won't get complacent. With SunTour, the competition was fierce but gentlemanly. They had good parts, and so did we. Sometimes ours were better, sometimes theirs were better. So it was a good competition. But yes, it was fierce.

GP: What SunTour designs or products did you think were sort of standouts? Or ahead of their time, or inspired Shimano, or had an effect on the way you designed or made parts?

KS: I think their original XC mountain bike group was good, and that's where they jumped ahead of us. It made us fight harder. And SunTour's slant parallelogram rear derailleur was one of the keys to indexing, and it was a SunTour patent. But SunTour's problem was that they didn't address other key parts to a successful indexing system—the cables, housing, and so

on. They tried to do it with just the slant parallelogram, and it just can't be done with that alone.

GP: What about Campy? Campy is totally road, which is true to its roots, but kind of limiting. It must make you glad that Shimano's roots are recreational, and not so limiting. Comment on that.

KS: Campagnolo makes fine components, there's no doubt about that. But yes, we have a wider range, more variety, and that helps us overall, of course. But at the top end, we look at ourselves as—well, I should just say we don't consider ourselves...we don't take a back seat, let me just say.

GP: Do you have plans to do more than 10 cogs on a cassette? And at what point will high-end rear shifting go internal?

KS: We don't have any plans to go beyond 10 right now, but yes, there could be more. But the more you put in...well, there are other factors that come into play when you just add more cogs. So, it's hard to say which way that'll go in the future.

GP: From looking at your direction, I get the feeling that somewhere in Shimano there's a notion that external shifting is seen as "refined but archaic" — about as good as it can be, but really, the future is in internal gears and electronic shifting. Will that happen at the high end, and if it will, when?

KS: There are a lot of things that come into play when making decisions like that. So it's hard to say when things will change. When there's enough of a technological advancement, so that costs come down, weights are reduced, and it becomes more efficient. Then we can consider other things.

*...Mr. Colnago—I don't think he can ever look at a tig-weld and say "that's beautiful." But to others, it is, and to some people, molded carbon frames are beautiful.*



GP: Will people still be shifting derailleurs in the high-end road market in 20 years?

KS: Well, I hope so, because that's one of the core competencies of our company, so—

GP: Well, you can do anything. But you think 20 years, probably?

KS: It's possible. Hard to say. You know, 20 years is a long ways out.

GP: But if you had to bet?

KS: I don't think I'd bet on anything for 20 years.

GP: Have you heard of the Bridgestone Klimatic derailleur from the mid- to late-'60s?

KS: I'm not familiar with that. I think I've heard the name.

GP: It was the predecessor of the Positron, in that it was an indexed system. It was not a commercial hit, but when I started working at Bridgestone in late '84, early '85, they had this bike there, called a "Roadman" bike, with the Klimatic derailleur on it. It was the first modern-day indexed derailleur and it was different from modern indexing derailleurs in the same way the Positron was—the indexing was in the derailleur itself, not the shift levers. And that's sort of an interesting design. Because if you're going to make indexed-only systems with no friction option, as the modern Shimano and Campy and SRAM systems are (except for the Shimano Bar-end shifters), if you have indexing in the derailleur, it makes all the other integral parts of the system, that now have to be index-specific, unnecessary. If it's in the derailleur, you could use any shifter, cable, cable routing, housing, and nothing would interfere. So it would seem to have benefits to have it in there. And that's what the Positron had, also.

It seems to me that the modern systems with the indexing in the shifter are not as well thought-out; either that, or the indexing is in the shifter so the buyer has to buy the whole system, and not just the rear derailleur. Obviously this makes good business sense, and I'm not saying it's a bad thing, but it's just interesting to me that back in the old days with the Positron, the shoes were sort of on the right feet, so to speak. If you get what I'm saying.

KS: Well, the overall philosophy of Shimano on how to design a better product, when we're focusing in on where the human body contacts the bicycle. So that would be in the feet, the saddle and the hands. So we want the feedback of the riding experience as close to those points of contacts as possible. So if the indexing is in the shifter, it gives better feedback than if it was through the cables to the derailleur, which is far away. You get that immediate feedback on whether it's shifting or not. So, yes, Grant, if the detents were in the derailleur it would make for a more reliable product. Theoretically, it makes more sense. But what we came up with was, we came up with such a reliable derailleur, that the detents didn't need to be in the derailleur. They could be in the shift lever instead.

GP: But if they were in the derailleur, it would never come out of adjustment.

KS: But from the rider's biofeedback point of view, if the indexing is in the shifter, it is easier to feel than shifting if the indexing were in the derailleur.

GP: That is true, but it's false feedback because the real action's happening somewhere else.

KS: Well, we designed a rear derailleur that was so reliable and precise that we could index the lever, and it would still shift. And that's when my uncle said, "Well, go ahead with it."

GP: Well, my personal perspective, I'm glad that it is in the lever, because it allows me to use Shimano derailleurs in friction mode.

Shimano has bicycle, fishing, golf and snowboard divisions. What else is in the plan, and do you think you can achieve, or do you even want to achieve, the same presence in those as you have in bicycles?

KS: That's a good question, too. Yeah, fishing and bicycle product are our main sources of income. That accounts for about 90 percent of our business, those two products.

GP: And bicycles are a little bit bigger than fishing, right?

KS: It's about twice as big. It's about 60 percent bikes, 30 percent fishing, 10 percent snowboard boots and bindings, and golf clubs, which are both sold only in Japan. And we make some automotive gears and shafts for engines and transmissions.

GP: Are there other industries you've got your sights on?

KS: We'd love to have another major business revenue-generating area, but it's not one of those things you can force.

GP: Is there a lot of pressure just having such a huge company, with so many jobs. You've got more than 1,000 employees.

KS: Worldwide, we have about 6,200 employees.

GP: I thought I read it was around 1,000.

KS: I think that figure must not have included a lot of the facilities we have in China, Singapore, Malaysia, Czech Republic, and Italy. Because the number is closer to 6,200.

GP: I believe you. It's a huge responsibility keeping all those people employed. I'd be nervous about it. In our company, we have 10 employees, and I think I could cut it in half and do fewer things and have a less stressful life, but then half the people would lose their jobs, and that would be no good.

KS: It is a lot of responsibility. I'm dealing with about 150 people here, and more if you consider the outside sales reps. I can't imagine what it's like to oversee a company with 6,000 people. So, it's—well, like Stalin used to say: "If one person dies, it's a tragedy. But if 1,000 people die, it's a statistic." I think that's what it becomes when you're talking about 6,000 or more employees. I remember my uncle, Shozo, took pride in the fact that he knew every employee's name. He was dealing with about 800 people. I barely know everyone's name here.

GP: Yet, it's possible that one day you will have those 6,200 employees, and more.

KS: Yes, it's possible.

GP: What impact do you want to have on Shimano? You're 42 now, presumably you'll work until you're 70. But what do you want to be your legacy to be, or the mark that you left? Shozaburo started the company and brought it along. And your father and cousins brought it into the modern age.

KS: That's a question that I've always been asking myself. "What do I do?" I don't think there's any pressure to do something, but there's plenty of time to do it. But I don't see myself as doing the same thing my dad did, or that my uncles did. I can see that sort of thing in Valentino Campagnolo. I feel sorry for Valentino. There's a lot of pressure on him to do something beyond what his father did, and yet his

*...what is state of the art when we introduce it, and can we design something better? If we can, then we do. There is no set timetable...*

father was overpowering, larger than life. It's not the same here, and I don't have that pressure. I do things in my own way, which are different from the way my dad or my uncles did. It's not better, not worse, just different.

**GP: What's different?**

KS: Well, I manage in a different style. I approach the business in a different manner. I don't know what my legacy will be, but I feel responsible to make this a better company than it was when I came in. I'm the third president of Shimano American Corporation, but the first one raised and educated in the United States, and to me I feel that's an important aspect that may go unnoticed. I live in a country that I believe is mine, in a culture that I understand as my own, and am raising my children and family in this country. That gives me an understanding beyond what the previous two people could ever imagine, and I think that's a strength that I bring to this position. The folks in Japan are relying on that strength, but they also fear it because it's not Japanese. And when they are working with this office, they're working with someone who's not just a Japanese transplant running the office. They're actually dealing with someone who's almost American. And they're looking out for the best interests of Shimano, and for the marketplace at the same time.

**GP: You've got an interesting life.**

KS: I wouldn't trade it with anyone. But it has its ups and downs.

**GP: I have a few more questions, and quick answers are fine. I should have asked these earlier.**

KS: Should we get some lunch first?

**GP: No, let's wrap this up, then eat. It won't take long. Do Octalink cranks have a future? Will someone be able to buy a bb for one in five years?**

KS: One way or another, the consumer will be able to use the product. We don't abandon our consumers.

**GP: Okay, now delivery. This year there was late delivery of Ultegra and LX stuff, and a lot of makers were caught without parts. Even us—it meant our April bikes turned into early July bikes. The trade media said it was "because of an unforeseen worldwide demand" for those products. I read that and thought, "How could Shimano not know the demand?" But there must be a story behind it.**

KS: There is a story, and it's kind of like that movie, *The Perfect Storm*, where three storms combined into the biggest storm in history. It's not that we didn't foresee the annual demand—it's that manufacturers and wholesalers based in the Orient and the U.S. and Europe, all wanted their parts *now*. Usually we have more warning, and we can spread out delivery, but not this time, and it overwhelmed the system. Once the computer starts spitting out lead times that are five months, six months out, people get nervous, so they place orders for more stuff. Then it's like the depression, when they had a run on the banks. Everybody ordered more stuff than they actually needed, but we couldn't say "We know you really aren't going to use all this stuff, so we're not going to ship it to you." We couldn't say that. So we said, "OK. We'll accept your order." So that's what basically happened last November. And we're still trying to catch up.

**GP: Okay...now, carbon vs. aluminum, especially in cranks.**

KS: Hmm, well, I think we use more carbon fiber than anyone in the bike industry because we make all those fishing rods out of it. So we are fully aware of the benefits and drawbacks of carbon fiber. We use

the best material for the purpose, whether it's steel, titanium, aluminum, carbon fiber, or whatever, and in cranks, we like aluminum. It's a similar weight—close enough, anyway—but is much more rigid.

**GP: Your line-up lacks a high end, non-competitive road riding group, and that seems odd, given that most riding is road riding, and most road riders don't race. I know there's talk of "the Lance effect," where people want to be like Lance, and you've already addressed that some, but there are tons of road riders who just want to go out and ride a bike on the road, and don't care who wins the Tour, and don't want to copy racers. And they generally have enough money, and they're of an age and maturity so that they aren't always looking for heroes to emulate. But, they also need lower gears. I would love to see sort an Ultegra-level or higher group, based on a 110/74 crank pattern, with brakes that offered easy clearance for fenders,**

even with like a 35mm tire. It could be a dual-pivot brake with a reach of 67mm, rather than 57, and a re-shaped arch that wouldn't squeeze a fender. The longer reach would allow manufacturers who can't hold their tolerances to shoot for the middle of the slot, and have it be in the middle of the slot and still have enough air above the tire with room for a fender. A really, a high-end recreational road group that wasn't sort of a, just a cheaper version of a road group. Is there any possibility that that would come about?

KS: Well, anything's possible. It's just that if we feel we can generate enough demand for that kind of product.

**GP: But you've got things like Saint, and Hone, stuff made for extreme trick and death-defying riding stunt riding. There can't be a bigger market for that stuff. Given what you've already made in the past, and what you currently**

**make now, it seems the only thing you'd need are new side pull brakes—you could refinish and rename old parts to get the rest of the "new" group. Or you could slightly tweak existing parts and make them perfect. It would be a really rider-friendly group, because of the lower gearing. It could have a 48/36 or 46/34/24.**

KS: Sure, but there are two things, two hurdles. One is being able to see the potential for selling that, and the other is, can we sell it without cannibalizing sales from an existing group, such as Ultegra or Dura-Ace? And you mentioned, "slight tweaks" here and there. Well, let me tell you, Grant, there's no such thing. From a manufacturing point of view, those "slight tweaks," if we do them across the line, it could mean hundreds of thousands of dollars in new tooling. You know, I remember talking with one of our fishing sales reps. We introduced some new reels in a dark forest green. And he comes up to me and says, "You know, if that was a blue instead of green, I could sell a thousand of those." It's like "Dude, one thousand just ain't gonna cut it, so go sell the green one."

As for Saint, it was the potential of all sales plus the demand, for that extreme riding. They wanted a bullet-proof group, so we made it.

**GP: Are sales meeting expectations with Saint?**

KS: Not so far, but we knew it was a small market, and we knew that sales would be slow to start off with.

**GP: But the recreational road market, say the 40-year-old and above road rider who is doing centuries, and brevets, and is just going out and riding for health. And right now that guy buys Ultegra, maybe with a triple. He's pedaling 52/42/30 with a 27 maximum, usually a 25 in the rear, and if he's like most in his group, he'd like to lose about twelve pounds, he's been riding fewer than 10 years and no**

*I think what we're focusing on...is the low-hanging fruit. Once all the low-hanging fruit is gone, we have to go to other areas. And I think...the kinds of things you want are not low-hanging fruit.*



more than 7,000 miles a year, and if he's taking on hills, those gears are too big. His high is bigger than anything Merckx raced with.

KS: Yeah, I understand that, but I think it's similar to what I've told folks in our office here—we have six bullets and twenty targets. Which six targets are you going to go for? That's one of the toughest parts about being Shimano in the bike industry. It takes more guts to decide what not to make than what to make. We want to maximize our return. I'm not saying we're neglecting a market because it's not important. But we have to focus our attention on something that's more important. There are bigger fish to fry. I think what we're focusing on—as they say in business terms, is the low-hanging fruit. Once all the low-hanging fruit is gone, we have to go to other areas. And I think with Rivendell and the kinds of things you want are not low-hanging fruit. It may be a matter of time.

We're focusing on the potential of people who don't ride, people who don't want to wear lycra. The people who don't want to ride in the Tour. Those kinds of people, people who've never heard of Lance

Armstrong. We're trying to appeal to those people, and we feel the market potential for that is huge. And you never know, maybe the end goal of where Rivendell wants to go with your bikes, maybe it's a similar place that we want to go with our components. Like we were saying, it's a different route that we're taking, but the end result is the same. We want to get more people on bicycles. And what I heard from you, is that you want to get more people on out of cars and onto bikes.

GP: Yeah, because bicycle riding is the best thing that you can do to prepare for a long future. If you don't ride a bike now you're going to have a hard time getting up from chair when you're 80. You've got to keep your legs strong, or you won't be mobile, and everything you do will be hard. I think a new recreational road group can help make that happen. I've never heard of the expression "low-hanging fruit" before this, but I think it's a neat expression. I think the kinds of things I'd like to see Shimano make are lower-hanging than they seem. Well, okay—are we're finished?

KS: Yep. We're finished.

## What's new for Shimano in 2005

### SHIMANO NEW THINGS & CHANGES FOR 2005

commutes about 40 miles round trip nearly daily, and is testing it.

Report later.

**Cyber Nexus:** Automatic everything for comfort bikes. Auto shifting and auto front and rear suspensions, all controlled by computers, no batteries. It's all in the front hub dynamo. Shimano has proclaimed it as "one of the most important themes for the future."

The group

the usual computer functions.

**Other changes, road & mountain:** The Hollowtech II cranks, with the spider that's semi-permanently attached to the bottom bracket, is filtering down the ranks and in 2005 will be found on Ultegra and up in the road line, and in LX and up in the mountain.

There's a new "enduro" type mountain bike group called *Hone*. It's all black and super stout, but not as black and stout as its predecessor, *Saint*.

**Octalink** cranks, the Shimano spline style, has trickled down the Tiagra. There are lots of new disk brakes and computers. The new XTR shifter has been redesigned "to enhance the human-component interface" and the secondary shift lever is now resin, for more durability. Than what?

All in all, Shimano continues to innovate, renovate, and charge ahead to a future of increasingly easy to use bike parts. There's nothing wrong with that, but we want an Ultegra-or-so grade road group with a 110x74 triple, and caliper brakes (centerpull or sidepull) that go down to 67mm and fit fenders easily.—GP



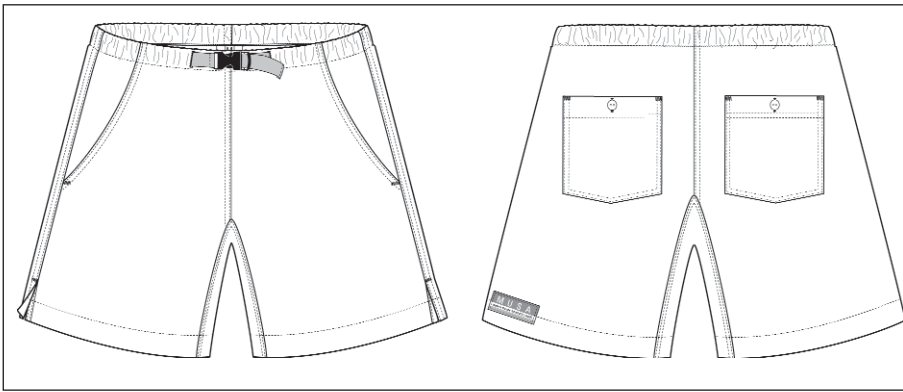
**Hub Dynamo...**for night commuting and, presumably, long brevets. The current leader in this category has to be Schmidt, from Germany, but when Shimano makes something, it doesn't stay second-best for long; and these new models are Shimano's latest. Sterling here

consists of front and 8-speed internal rear hubs, front and rear disk brakes, brake levers, suspension fork, electronically controlled front and rear derailleurs (with a manual option mode), computer-controlled air rear suspension, and a Flight Deck computer for all

## MUSA Clothing Update



MUSA stands for Made in the U.S.A., and it's a new line of mostly cycling duds that hardly looks like bike clothing at all. That being the case, you might think it's just for quarter-mile rides down to the liquor store, but that's not the case at all. For all of its humble looks, MUSA duds are ideal for anything outside of competition, although on that note we hasten to add that yes, Lance would have won the Tour in these, too. Well, he might have lost a time trial or two, but the mountain stages he still woulda won. And, if he wants to wear any of these garments in next year's tour, we'll cut him a deep discount, with bonus incentives for good results. This is a serious offer.



36

The belt comes all the way out. It's green. The elastic in the waist isn't too snug. Two pockets in back make these shorts look manly, and the buttons say MUSA on them. That's all!

**MUSA SHORTS.** These differ from normal "casual" style cycling shorts in that they lack a sewn-in pad. Sewn-in pads are bad because you can't wash them and the shorts separately. Inners get sweated and worse in, and should be washed daily. Outers—they may get smudges from wiping greasy hands on them, but that's the worst that generally happens. You might sit in some dirt to eat a sandwich, but a little dirt is nothing compared to crotch sweat. The point being that you ought to be able to separate the outers from the inners, and that's a cinch with MUSA shorts, since they have no inner. What do wear? Well, for short rides, wear regular old underwear. For longer rides, you can't beat Andiamo undies. We sell

them, and so do tons of other places. They're all synthetic, lightly padded, seamless undies made expressly for riding in.

MUSA shorts have a seamless, gusseted crotch. They have a removable elastic belt (green). There's some elastic in the waist, but you know how, on most shorts that come in your size, the elastic is so tight even when it's not maxed out that you wonder what the belt is even for? Well, MUSA shorts aren't super snug around the waist. There's elastic, but it's stretched just a little before sewing; and the belt is 100 percent removable, so if you want to use suspenders, you can do so without getting the "both" look.

MUSA shorts come in two variants. Variation #1 is a custom-dyed deep, rich-ish khaki with dark green pockets, which appear above as knife-blade shapes between the pocket edge and the side of the pant. Var. #2 is the same, but with a dark green crotch gusset, too. More bikey that way. The green gusset is hardly noticeable, and more from the rear than from the front, since it starts at 6:00 and goes away from your plumbing for about 4-inches. We rode four prototypes before getting that right.

Other things: They're brushed supplex nylon—nothing unusual there, but it's good fabric because it's light and dries fast. Good for long rides, bike camping, and so on. There's a side slash that probably doesn't aid pedaling, but seemed like a good idea in theory. The shorts are long enough; on the long side, I'd say. The pockets are "hanging" style, like Levis have, so you can sit down on a BART train and cross one leg over the other and not immediately lose your pocket change. The two rear pockets are buttoned, because they'd look like women's shorts too much without them—and we added the second pocket for the same reason. You can put a clip-on rear flasher light on it. What else?... Well, the front pockets are bar-tacked for strength, but that's standard in any pair of pants or shorts, not just MUSA. The label is attractive. We debated briefly about where to put it, and Doug, our unpaid intern, decided it should go just behind the midpoint on the left leg. That way, it doesn't wag in someone's face if they're looking at you, but it's there to see if somebody wants to check out your nifty shorts.

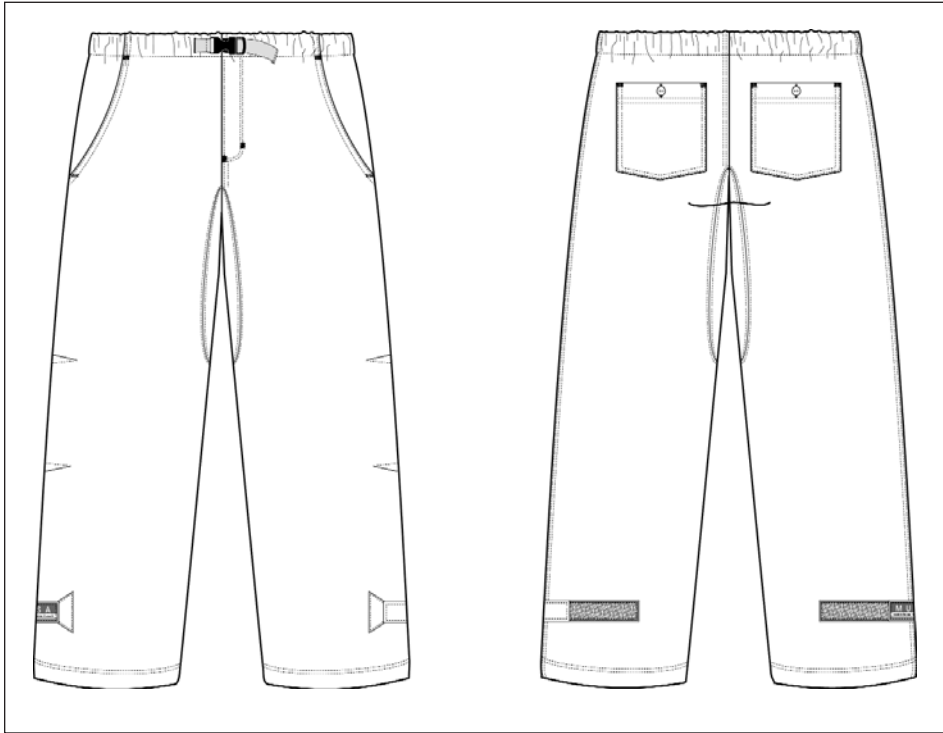
All MUSA garments are made in California, at a sewing shop we visited to make sure there weren't obvious signs of child or slave labor. We met the owners, asked them the awkward questions about pay and benefits, and came away satisfied. Each pair costs us \$14.13 plus shipping, so about \$14.50. We sell them for \$33, which is a phenomenal markup for us, but if it seems too high to you, consider that the last pair of pants you bought for \$50 quite likely cost the "maker" about \$6. You can buy roughly similar but probably not seamless-crotch shorts for \$20 if you look around, but we have a better design, better color, better label, and ours are made in small numbers in the U.S.A. \$33 is pushing it, we know that, but these are excellent shorts.

Delivery: March 20, 2005. We're taking backorders. Sizes XS-S-M-L-XL. Price: \$33

MUSA shorts, with khaki crotch): XS: 22-247; S: 22-248; M: 22-249; L: 22-250; XL: 22-251

MUSA shorts, var. 2 (green crotch): XS: 22-442; S: 22-443; M: 22-444; L: 22-445; XL: 22-446





Velcro tabs suck the lower leg in, too keep clear of the chainrings. We did both, so they're tandem-compatible. Small darts above & below the knee help them bend right. They're light.

lent. You can wear long wooly underwear underneath them, or just Andiamos. We really like the Andiamo underwear. If you get these for riding, we heartily recommend them highly. We sell those, too. Note to women: My wife says they fit her fine.

Delivery: April 20, 2005. We're taking backorders. Sizes XS-S-M-L-XL-XXL. Price: \$48

MUSA longs: XS: 22-432; S: 22-433; M: 22-434; L: 22-435; XL: 22-436

MUSA LONGS. These are cut from the same bolt of cloth as the shorts are, and from just above the kneecap, are no different. The knee area is sewn in a way to not bind up as much as it would if it weren't sewn that way; I forget the name of it, but you can see the detail marks on the left-most drawing there.

But the real action takes place at the ankle. We wanted these to cinch up enough to keep them away from the chain and sprocket, so, after some trial and error, came up with a clever but not by any means genius velcro tab arrangement which we've magnanimously agreed not to patent. It works fine, and also allows you to cinch them up above your calf, thus making knickers out of them.

As with the pants, the main part is that dark, rich-like custom khaki, and the pockets are a quite complementary dark green. The crotch is always the same khaki as the rest of it; this time, no green option.

As riding pants go, these are excel-



comes only in a blue & green plaid (over white). It doesn't look weird, cheap, clashy, or bad in any way, and you can see it on the MUSA site: musaduds.com. The label is sewn low on the front tail, as

shown.

This shirt is a fine shirt for off-the-bike, too. Anywhere you'd go that it would be frowned upon, why go there in the first place?

It costs us \$28. That's probably four times what Ralph's cost him. Remember, it's made in the U.S.A., so we can't be selling it for \$35 or so. If they don't sell for \$48, all of us here will buy a lifetime supply at the employee discount, and we'll have learned a valuable lesson: We can't sell an expensive seersucker, and shouldn't have tried.

Delivery: March 30, 2005. We're taking backorders, no deposit needed. Sizes S-M-L-XL-XXL. Price: \$48

MUSA seersucker: S: 22-437; M: 22-438; L: 22-439; XL: 22-440; XXL: 22-441

MUSA SEERSUCKER. My (Grant) favorite super-hot weather cycling shirt is a long-sleeved seersucker. L.L. Bean and Lands End used to sell them but in recent years all I've been able to find are short-sleeved ones. And then, guess what?—No button on the pocket! What are you supposed to do about a camera over bumps? The MUSA seersucker is nearly perfect. It may actually *be* perfect. It's slightly longer in the sleeves, to accommodate a rider's position. The pocket is big enough, just barely, for a CD, and has a pencil sleeve sewn in. There's a button on it to hold your camera, if that's where you must put it and it's small enough. The styling is correct from a fancy dress-shirt perspective. The placket is right, the cuff is correct, the roll of the collar is delightful, and yes, there's even a fruit-loop in back (not shown). The fabric is U.S.A.-made 100-percent cotton seersucker, about 6-oz wt (the lightest of two samples we picked from). Although you'd never know by the drawing there, it

# Tools

by Mike Wolcott

The axe bites deep. Chunks of pale yellow wood jump from the log, cartwheel in the green air and land on the forest floor with tiny thuds. Orange butterflies dance around the exposed root mass.

This lodgepole pine is a hundred years old and twenty inches in diameter. It stood dead for two or three years. Sometime last winter, a stiff west wind tore across the southern Absarokas and knocked it down, blocking the Soda Fork Trail and giving me something fun to do on a Sunday afternoon.

The work is steady—three strokes from the right, three from the left. A few knots present interesting opportunities to work the cut. On the first, I back off on my swing and come in obliquely. This dishes up the surrounding straight-grained wood, exposing the knot, so I can work around it without wasting strokes. Three more swipes and it pops out like a champagne cork. Harder and more dense than sapwood, knots make complex and lovely flames, but will dull your blade. Or make it glance off the wood and into your leg.

The other knots come out easily, too. Ten minutes, and I'm done with the log. I lean on the hickory handle of the double-bit and take a hard look at the cut. It's at the correct 45-degree angle. The face is a little more scalloped than I'd like, but the axe bites are big and clean. The chips are a half-inch thick and three or four inches wide. One chunk is a good six-by-fourteen. You can't do that kind of chopping with a dull tool. Good enough.

The cut is a kind of signature. Every trail worker who walks by this tree will grade my work. They'll see the pile of pine shrapnel, the sharp ends of the bucked log, and that one monster chunk. You can tell if somebody knows what he's doing by looking at the cut. Trail workers, myself included, have been known to flush-cut a stump just to hide evidence of a botched crosscut job.

I don't botch many jobs these days. But when I started with the Forest Service seven years ago, I was not what the Wyoming cowboys like to call "handy." My tool kit consisted of a crescent wrench and a claw hammer, which I used more-or-less interchangeably. My beginner's approach to hand tools was long on force and short on precision. One perfect spring day, the foreman marched the new trail crew up Boulder Canyon, stopping at a green sub-alpine fir that had fallen across the path. He limbed the section to be bucked and handed me a pulaski (the venerable firefighter's tool that is part axe and part adze). He nodded: "Go ahead."

I looked down at the defenseless tree like a samurai bent on beheading the emperor's worst enemy. The crown, which blocked the trail, rested a few inches off

the ground. I lifted the tool over my head and let loose a tremendous swing, straight down. The blade bounced right back up, narrowly missing my face, causing my coworkers to step back. The tree showed just a nick.

"Try it again," the foreman said. "Come in at an angle. Not quite so hard."

I gave it another fierce whack. This time the blade glanced off the tree. The pulaski flew out of my hands, looking for a major artery to sever, maybe a skull to dent. Coworkers lunged for safety. Somebody retrieved the tool and handed it back to me. The foreman's voice was tighter this time: "That's a sharp blade, or it was. It'll go wherever you put it." Where I put it, on the next swing, was into a rock.

\* \* \*

From that rough beginning, I've developed some skill with hand tools. I can put the business ends where they are supposed to go. I've learned which ones work best for which jobs, how to swing one all day without crippling myself, how to sharpen and keep them in working order. And, after years of using hand tools in wilderness, I have grown to love them.

We trail workers are inordinately fond of our axes and crosscut saws, our shovels, picks, adzes and mattocks. We lavish them with affection, cleaning and oiling them obsessively, displaying them on the walls of our government bunkhouses, keeping them wickedly sharp.

The tool-obsessed trail worker, like any gear-head, has reasons for his affliction. For starters, the tools are beautiful. The tempered steel blades gleam like jewelry, and the straight-grained hardwood handles feel alive.

But beauty is only part of the story. A suburbanite's beat-up backpack or brand-new crampons may remind him of his brightest moments; a well-used axe and saw do the same for a trail worker. On a deeper level, that axe on the wall—like a cowboy's hat and spurs—symbolizes a way of life. It connects the owner to a sense of who he or she "really" is. Trail work is a culture, the tools are its icons.

This culture of deliberate anachronism attracts people who prefer physical reality to what is offered on MSN. These throwbacks are usually uncomfortable in town, and would rather lug tools around in the woods, sweating and stinking and doing what amounts to playing in the dirt, than sit in traffic or stare into a computer screen.

This low-tech employment option would probably not exist, if not for passage of the Wilderness Act in 1964. That visionary scrap of legal paper mandates "primitive" uses of designated areas, effectively posting



"Machinery Keep Out" signs on more than 100 million acres of public land (so far). With thousands of miles of recreational trails that require periodic maintenance, and new construction of backcountry trails, turnpikes and bridges every summer, the federal wilderness system has effectively created a vast sheltered workshop for Luddites.

This legally enforced use of hand tools strikes some people as ludicrous. They watch my partner Joe and I bucking deadfall off the trail with a crosscut saw and say, "You know, that would be easier with a chainsaw."

"Nah," says Joe. "We'd spend half our time keeping the thing running."

"Maybe it would be easier," I'll say, "but it wouldn't be as much fun."

When we look up, they are shaking their heads in pity.

They don't know that a good five-foot crosscut saw—a 1938 lance-tooth, crescent-ground Simonds, let's say—practically melts through wood. Furthermore, it possesses virtues no chainsaw can match. A crosscut saw has no moving parts, so it can't break down. It will outlast any chainsaw (how many 60-year-old Stihls do you see parked next to the neighbors' woodpiles?). It requires no inputs of bloody oil, and will not choke you with partially burned hydrocarbons.

Nor will a crosscut make you deaf. You can talk with your partner over the swish of teeth and rakers gliding across the wood. Stop pulling, and the sounds of the world return instantly—wind sighing in the treetops, the chattering of birds, water flowing over stone.

We lucky trail workers—like skiers, climbers and river folk—get to use our beautiful gear in the healthiest, most wild places left in America. And somebody pays us to do it.

\* \* \*

Last week, Joe and I spent a few days rebuilding a section of meadow trail that had rutted out and was spawning parallel trails. We widened the original tread by grubbing away the sod with an adze-hoe and reshaped the berm with a long-handled shovel.

We dropped a couple of 50-foot lodgepoles for waterbars, using an Oregon saddle saw. The Oregon saw is a mighty little tool. It weighs just a pound and a half—great for backpacking. Properly sharpened with a circular file, its 24-inch blade will rip through a green 12-inch tree in about four minutes.

I peeled the trees with a Swedish axe, making a game of it, seeing how long I could make each shaving. The bark came off in ten- and twelve-foot strips, sweetening the air with pinesap. The sun warmed our shoulders, and a mountain day stretched out ahead of us. Joe walked toward the trail to dig trenches for the waterbars. He turned back, holding a pick-mattock over his head.

"It's the 21st Century," he said. "And we have the tools to make our lives simpler and easier."

###

*Michael Wolcott is a writer and wilderness ranger in Wyoming and Arizona. He rides his bicycle almost everywhere, and does not own a motor vehicle. This essay originally appeared in Mountain Gazette.*

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## Brophy's leg, cane, accident, and field repair

**Bob Brophy called up to order something last October or November, and somehow the conversation strayed, and that's when I started wishing I had it on tape. Since I didn't, I asked him to write it up for me, and this is what came of it. —Grant**

I CARRY A CANE BECAUSE I AM A PARTIAL paraplegic from a back-country ski accident in February, 2000.

I was a ski patroller, and my companions used my radio to call the Life Flight helicopter to evacuate me to the hospital, where I underwent 14 hours of surgery to repair two burst fractures of the vertebrae, (T-9 and T-10), and an attempt to repair my damaged spinal cord. I've got lots of titanium hardware in my back. I had a long hospital stay (and possible a local record for time spent in ICU), and an even longer time of physical therapy.

As a result of that accident, I have no sensation in either leg, and no reflexes, but I have voluntary motor skills in my left leg while my right leg is paralyzed. I walk with a cane with some difficulty, and I can't walk without it.

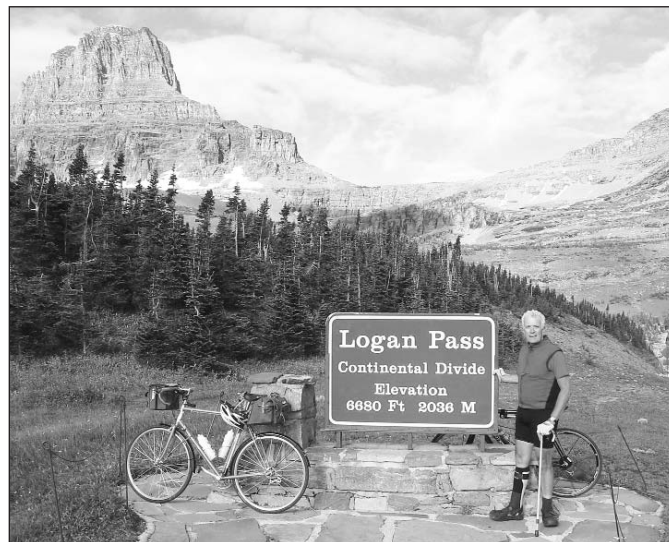
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Mounting and dismounting a bicycle is not a pretty sight, but once I'm on the bike, I cycle pretty well. I ride about 500 miles per month, pedaling with my left leg only while my right leg is clipped to its pedal so that it doesn't flail about. I like to think that maybe the right leg will "learn" over time to help with the pedaling but meanwhile, at least it seems to be maintaining muscle tone from the movement alone, passive as it is. And as for my back, cycling has played a vital role in my recovery from the spinal injuries.

Anyway, I was riding my orange Rambouillet, which I bought from Rivendell in June, 2002. It is a 60 cm frame, and the components are all Campy Centaur. I have over 12,400 miles on it since then, and I have enjoyed the bike a lot. We were half way through a 3-day light touring trip from my home in Hamilton, Montana to Bozeman, 250 miles away.

Things seem to happen fast at 20 mph on a bicycle, but I saw my cane come loose from where I had the handle tied to the handlebars a couple of seconds before it bounced out of the ring holding it near the front dropout, and into the spokes of the front wheel. The wheel and the bike stopped instantly, and the bike and I flipped over the front wheel and I landed on my helmet on the rocky road, fracturing the helmet in 5 places. I unclipped my feet from the pedals and did a self-assessment to discover only minor abrasions on my knees, forehead and elbow.

The wreck described above badly bent the fork backwards at the fork crown lug so that the front wheel overlapped the downtube by almost one inch. But nothing was broken or cracked. My friend and cycling companion was a mile or so



Bob before the accident, shown with the exact cane that crumpled the frame.

behind me descending this rough rock and dirt cut-across road which climbs over 1000 feet above the Big Hole River in southwestern Montana. He said he saw the cloud of dust from my wreck but did not hear my expletives when I saw the bent fork. We were 10 miles away from a small town, there was no cell phone service, and the road was rarely traveled. The nearest bike shop was over 100 miles away.

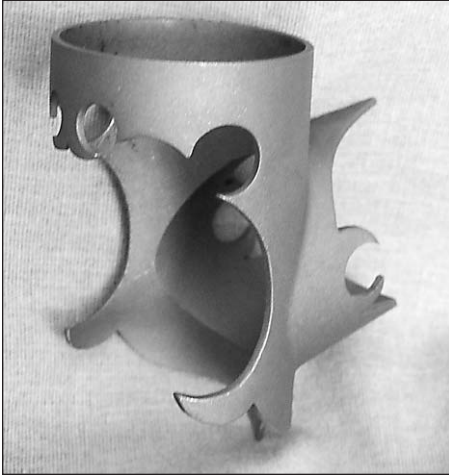
We carry enough tools for minor repairs. We removed the front fender and wheel, and located a large boulder with a crack in it wide enough to insert the fork (an improvised vise). I stabilized the fork while my friend lifted the rear of the bike frame as hard as he could, or in his words, "Until my back hurt." We had to do this twice more until we had bent the fork enough to get about an inch of clearance between the front wheel and the downtube. We decided the bike was rideable, and we packed up and continued our trip. We spent the night in Twin Bridges, and the next day rode 97 miles into Bozeman.

Only a steel frame built with fine workmanship could take the severe abuse that this one did and not break, and only a steel frame could tolerate a crude field repair and still be rideable. The bike actually handled pretty well, although I admit I was a bit nervous on two long steep descents on our route. It's repairable, too.

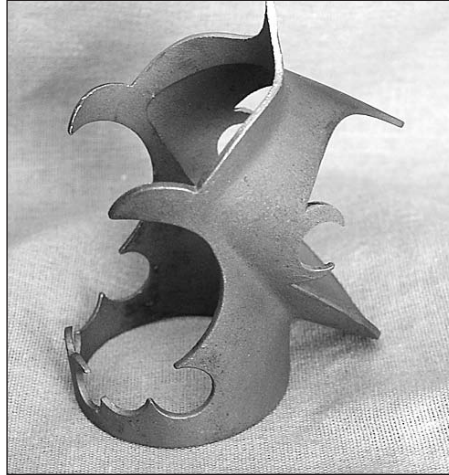
*Robert Brophy is 62, and was born and raised in western Montana. He has owned a general veterinary practice in Hamilton, Montana for the last 35 years, and is still actively practicing. He married his wife Katie 39 years ago, and has 3 grown children and 6 grandchildren.*

*He has ridden a bike since 1949, and currently has the Rambouillet, a Bridgestone RB-T and a Bridgestone MB-3.*

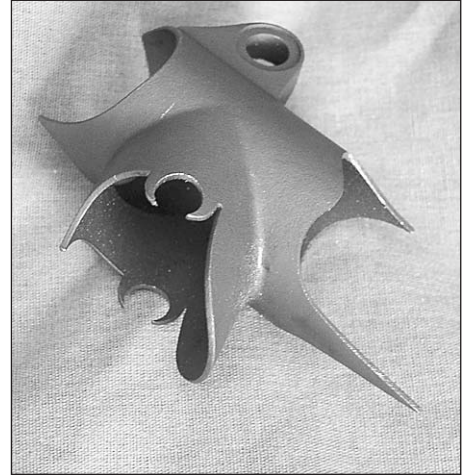




**Top head lug.** This photo shows the inside of the lug and the crisp, non-radiused edge where the tubes meet. This makes it easier to make a strong joint, especially when brazing with silver, which doesn't fill gaps as readily as brass does. Also note the head tube extension, also different from the original Nervexes.



**Bottom head lug.** Of the three Newvex lugs, this one is closest to the original Nervex, the main difference is the overall neatness and quality of the lug (much better), and the down-tube socket, which in this case is sized for a 31.8mm down tube, instead of the original's 28.6mm.



**Seat lug.** I haven't asked, but I bet Richard's favorite lug in the batch is this one. It has longer points than the original, and a ten-times better seat binder. This particular binder is part of the whole lug, of course, but is cast so it will look brazed-on, after painting. That fascinates me, quite frankly. Don't ask why.

## A Look At Lugs, XIII: Richard Sachs' Newvex

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He calls them Newvex, because the obvious inspiration for them were Nervex Ref. 49 Professional lugs, made by the famous French company, Établissement Aime Dubois. They look like neater, cleaner, prettier Nervex Pro lugs, with a smart head tube extension. They're sized for modern OS tubes, with a 28.6mm top tube socket, and a 31.8mm downtube socket.

These are made by Long Shen, the same folks who make our lugs and just about everybody's modern investment cast lugs these days. So, with all due respect to the originals (and a lot of respect is due), these are better in every way. They'd work for restorations, as long as you're not an ultra-collector who has to have the real Nervex lugs, even though they aren't as nice; and they'll work if you want a new frame made with Nervex-style lugs. An obvious choice would be one of Richard's frames, but if you're looking for a style frame that he doesn't make, he can surely direct you to a builder who'd be happy to build you a frame using these lugs.

This is Richard's second set of his own investment cast lugs. They're about \$60/set. A matching Newvex fork crown is also available, and it runs about \$30.



Stickers & T-shirts, too. If you can't afford his frames (\$2,500) but you still want in on the action, Richard has a range of clothing and accessories. His Got Lugs? t-shirts have lug drawings on the front and this on the back. His "Imperfection is Perfection" t-shirts are common summer-wear around here, although we're not quite sure how to take that message. He even offers top-notch wooden jigsaw puzzles.  
Richardsachs.com

Richard has been one of my strongest influences over the years, and still is. His dedication to One Way of Building (and lugs) had a tremendous influence on me back in the '80s, and there's no doubt that if that weren't the case, we wouldn't be as committed to lugs as we are. So, aside from liking him personally, we owe him a load of thanks.—GP



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## Bicycle Makeover VI

An old Univega found under a junkpile fixed up cheaply

I was riding home one evening on a paved path that cut across an elementary school playground, and there was soccer going on; and where there's soccer, there are soccer moms. Two of them were holding this bike and looking at it in a way that suggested a certain amount of confusion, so I asked if they needed any help.

"We just found this under a pile of wood and junk over there, and she needs a bike,": one of them said, pointing to the other. I got a closer look and saw that it was an older Univega cheap mixte mountain bike with a broken cantilever stud on the right fork. The cantilever brake hung by the cables. "It's not rideable like this, you know," I said, and then, without going into the whole Rivendell thing and the Reader Makeover column, I said I could fix it. Aida, the woman you see above, brought it by the next week.

We'd planned to put a Nitto stem on it, not because the bike was all that worthy of it, but because we don't have any non-Nitto stems around, and we had a few used ones that would've been perfect.

But bummer of bummors, the stem quill was the old-American size, .833 inches (21.8mm) or something like that. Smaller than 22.2mm, in any case. So I took a Nitto and started to sand it down with sandpaper. After about an hour, I measured it and found it was 22.15, and my forearm was swollen up like a pickle. I like to think my time is worth something, but it was better to give it up and wreck the Nitto than to keep at it for another couple of hours, so I just ordered a cheap stem in the right size, and used that when it came.

This style bike is hard to find in a new bike. That's too bad—a cheap mountain-bike mixte is a wonderfully useful bike for lots of people. It's secure, it'll hardly ever get a flat, it has all the benefits of the mixte frame (we go on about that elsewhere in this issue). I'd like to see more makers make these.

Maybe we could get Panasonic to do one for us. A good, lugged, semi-cheap but not trashy mixte. We will look into that. I wonder how low we could get it.—Grant





She should have worn something else to pick up the bike, but you can't dictate these things. Thank goodness it's a mixte.



LEFT: See the broken cantilever studs? Don't worry about that happening to yours, at least not through use. A mean person did this to the bike. We put on a Dia-Compe Bulldog sidepull, with tons of reach, and it stops fine.

RIGHT: The Bullmoose-style handlebar is a neat classic in its way, but this was a cheap one, and so we felt no remorse, just joy, in replacing it with a Nitto Albatross bar. The old shifters were stiff and the old grips had to be cut off, so the bike got new SunRace thumbies and fresh cork grips, and fenders.



### Was is it worth fixing?

It probably cost \$300 fifteen years ago and wouldn't sell for a seventh of that today, even if the canti stud wasn't broken and the brake worked. But before we fixed it, it was junk, and now it's a decent bike with lots of potential. Part of the fix is for the fixer (it's satisfying), and part is for the owner (it's rideable and safe). Aida says she'll ride it, but we don't have her contact information, so there's no way to follow-up. It's okay. Somebody, sometime will ride it, even if it's not her. But she *did* say she wanted it, and now she's got it and it works.



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Most of the Color Services crew, in two images separated by an hour. No identical twins here, that's me in both.  
 L-R: Adam, Wayne, Jerry, Barbara, me, Paula, Mark, Marcelino, me again, Jon, Elton. Missing: Jim (see next page), John, Joe, John A., Mark E., partners John & Janet.

## MYOB: Color Services

**In every issue we profile a member's small business. This time, the business is Color Services, in Needham, Massachusetts. Riv member Marc Elliot owns it.**

We are a 16 year old photographic lab located in the Boston metro west area. We started out as a full service prolab, as they existed at that time. I had been general manager of one of the big Boston labs that was experiencing explosive growth and that growth had begun to separate me from the customers we were serving. I didn't really enjoy being an administrator, and it seemed like the time to strike out on my own. Like a bubble boy I had little clue that the era of "explosive growth" was about to come to an abrupt halt.

In hindsight, my partners and I couldn't have picked a more inopportune time to start a lab. The economy in general was starting to tank, especially in advertising and especially in the Boston area. We

made many of the classic mistakes that are common among startups. We spent too much on construction and lawyers. We could have negotiated better deals on real estate and equipment. We thought that because we were committed to doing a great job and WE knew we were here that it would follow that everyone else would, too. We survived largely through hard work, an iron will, a committed core group of clients and staff and the financial patience of my partners.

Around 1998 it was becoming clear that the distant thunder of the digital storm was getting closer. We had been surviving on the margins that pro and catalog film processing generated and that business was starting to shrink. The trade show and display



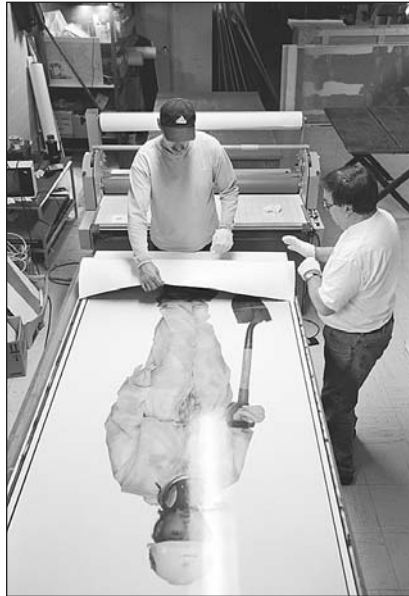
business was an alternative (we already had a toehold in it), but that was (and remains) a fairly saturated market driven primarily by price. The consumer market for film developing and processing was even more of a commodity market, and our high cost location put us at a distinct disadvantage there.

I had started down the visual imaging road in the 1970's at RISD (Rhode Island School of Design), and most of my friends were (and are) artists. It started to occur to me that despite the dire warnings offered by my industry colleagues that we might be able to make a go of the fine art photographic market. My theory was that in a slow economy commercial and industrial concerns would simply spend less (if at all) on the services we provided while artists would always figure out a way to get their work done. They are the creative ones, after all. Six years later it is clear that we would not be here now if we hadn't. Most of the labs that we were competing with in 1988 are gone now, and those few that have survived are a shadow of their former selves. The lab I left to start Color Services had 60 employees in 1988. It now employs about 7 people. While the future (and our place in it) is still uncertain, we seem to be in a better position to move forward than ever.

Most of our work now is from artists, institutions, galleries and collectors. While we still offer most of our traditional services, much of the demand for things like E-6 processing has pretty rapidly disappeared. People often ask me what I think of digital and how it has changed our business, expecting me to rant and rave. Digital is just another tool. It has dramatically changed the photographic landscape, but I'm surprised it took this long. It happened in the recording and audio market long ago. I never expected to spend my entire career using the same processes I began it with. That said, the majority of the critical work we do is still traditional, and the artists we work with recognize the subtle superiority of this mature technology. It is also what the market still prefers. A 48"x60" optical print made directly from an 8x10 negative is hard to surpass.

Although we do digital work, there is still a demand for traditional film processing, printing, copywork, duping, small chromagenic or B&W gelatin silver prints, and C-41, B&W, and E-6 film processing. We get the work not only because we're good, but because others who used to do it are giving up, or going out of business.

Our digital services range from high resolution scanning to large format pigment printing, with most everything



Bill mounting a Joe McNally Moby Polaroid print on 6061 T6 aluminum.



Jim, who prints murals (among many other tasks) while you sleep.

in between. We also are working on a variety of hybrid projects, often involving analog and digital restoration and conservation of photographic archives. The one area that is universal in its demand, regardless of how the image is made, is mounting and framing. We do everything from conventional conservation matting and framing to mounting on aluminum and face mounting to acrylics. This is now one of the busiest areas in the lab.

If there is a single key to our survival (success?) it's that we have always tried to treat everyone and their work equally and with respect. If we get something wrong we acknowledge it and make it right. We listen. I understand that what cycling is to me photography is to many of our customers.

The importance of the images we all make makes a difference in our lives.

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# Riv Reborn

by Maynard Hershon

Three years ago when my blue-and-white Rivendell frame was new, my good Chico, CA, bike shop, North Rim Adventure Sports, built it up with Dura-Ace 9-speed and Ultegra wheels. The bike looked and worked great.

Just a few weeks later, I moved from Chico to Tucson. I rode the Riv a lot in my new home, along with my Ultegra 9-speed LeMond and my fixed-gear SalsBridge—a Bridgestone RB-1 frame heavily modified by Salsa years ago.

In 2002, I got my old Lighthouse, a lovely Italianesque lugged steel frame that I bought in about 1990, back from the builder. I'd given it to him a decade ago for his elder son, but as it turned out the boy didn't need it. Excited about riding the Lighthouse, I took parts off the Riv build it up.

I rode the Lighthouse happily for months and months. Then my girlfriend got a new LeMond frame, an 853 Maillot Jaune. I stripped parts off the Lighthouse and we put them on the LeMond, where, it appears, they will stay.

I realized I missed my Rivendell. I visited my friend Greg Yares, a collector and the promoter of our two annual bicycle swap meets here in Tucson. Greg had some virtually new mid-'80s Shimano Ultegra-level parts, called 600 at the time.

I bought derailleurs and side-pull brakes, a cup-and-cone bottom bracket and a crankset. I found 39t and 53t Shimano rings. I had a set of Dura-Ace hub wheels with Ruffy-Tuffy tires. From Rivendell, I bought Tiagra aero-style brake levers and Silver shifters.

The bike is set up mid-'80s-style, except that I believe it would then have had indexed down-tube shifters and fewer rear cogs. My bike's a 9-speed, 13 – 23.

We're gonna talk about shifting. Not only am I riding friction after 15 years of STI or Ergo-Power, I'm riding the same bike with the same cog set: a fair evaluation. Here's my take.

If you ride solo or with uncompetitive company on familiar routes, friction shifting will be delightful - even when it's new to you and you're a little clumsy. If you hate the clunking of indexed shifts, you'll love friction: it's virtually soundless. Maybe it's too soundless. I'll explain in a minute.

If you are inspired by the idea of simple, un-technical gear-changing, if you love the look of a clean, uncluttered bicycle, throw off your STI crutches...

If you are young, that is.

Why do I say that? Because if you are not young, or if you have suffered hearing loss, you will not hear your chain protesting its misalignment with some sprocket or other. You will discover this failing on your first ride with friends who hear well.

You will also not hear your chain scraping your front derailleur cage. I don't hear mine.

Older front derailleurs featured narrower cages than do today's models. As you shift across the rear cluster, you frequently have to "trim" the derailleur to center the chain within that narrow cage. My chain, by the way, is a Dura-Ace, a fine, skinny chain intended for closely spaced clusters. A wider chain would be noisier, oftener.

If your hearing is not acute, you will not hear the chain rubbing the cage - until one of your riding partners suggests you trim your front derailleur. In response, you will learn to pre-position the cage inboard or outboard to minimize chain rub.

As Grant suggests, you will shift less often with your friction setup, carrying whatever gear you're in over small rises and down short descents. No problem on solo rides. If you ride with others, they will shift. You won't. You'll subtly interrupt the rhythm of the ride.

During group rides, your friends will shift more often: If they are skillful, they will ride more miles in the "correct" gear, the gear that best matches their natural cadence. You may choose not to be bothered by this. Your legs may have another opinion.

You'll occasionally look back at your cluster to discern which of your cogs the chain is wrapped inaccurately around. Your friends will wonder why you do that. They merely wiggle their brake levers and try other gears. Hey, one gear or other will work fine.

You will not be nearly so casually experimental, because your shifts will be slower and more deliberate, thus fewer in number. But your shifts will be quiet.

Yes, your shifts will be quiet and eventually smooth. You'll stop making bad alignment mistakes. No heavy, junky STI levers rattling on YOUR handlebars. You don't need 'em.

It may take weeks or months, but eventually you'll ride with your STI'd friends and no one will notice your "manual" shifting - not them and not yourself. You'll just be one of the riders on your good group ride.

That's a fine feeling.



## Who'd ride a Quickbeam?

**Answer & Age:** Elton Pope-Lance, 51. Married to Deborah for 28 years. Two children (Trevor, 20, and Nora, 17, and both ride bikes)

**Job:** Photographer and photography lab tech, and part-time internet staff at Harris Cyclery

**Hobbies:** Bike riding, fiddling with bikes, fly fishing, large format photography, acoustic music

**Favorite Author:** John Steinbeck, Ernie Schwiebert

**Favorite Movie:** *The Last Picture Show*, *Harold and Maude*.

**Years riding a bike:** 15 as a kid, 5 as an adult, with a long hiatus in between

**Typical Ride:** 30-mile round-trip commute, and errands around town

**Favorite Ride:** Outings with the New England section of the Veteran-Cycle Club

**Dream Ride:** 2005 Boston Brevet series, and Boston-

Montreal-Boston.

**Other Bikes:** Rivendell custom, Rivendell fixed-gear custom, Atlantis, A.N.T. with Rohloff, 1971 Raleigh International, 1948 Holdsworth, Pinarello Cross bike, and 1993 Bridgestone XO-1.

**Why this bike?:** Aesthetics & craftsmanship are high on my list. I wanted a comfortable, all-purpose lugged steel, single-speed/fixed gear bike for commuting and general use, and it had to take fenders and look good. The Quickbeam is perfect. I ride all of my bikes regularly, and the Quickbeam gets more than its share.

**Comments:** *Elton bought a frame and built it up himself, using smart & good parts. We appreciate (because it reminds him of us?) that despite his high-brow tastes, he's not what we kindly yet semi-derisively refer to as a "bagmatcher." There he is with a khaki Adam in back, and a blue-grey Berthoud in front—a sure sign that he actually puts stuff in 'em!*

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**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.

RIVENDELL BICYCLE WORKS

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