Waterford's Richard Schwinn (an interview)



Richard Schwinn is one friendly guy. There isn't a mean or weird bone in his body. That is not meant to imply that there IS weird and/or mean bones in the bodies of former interviewees about whom I did not declare the same.

The surname "Schwinn" is right up there with Rockefeller, Gabor, Simon (& Schuster and Carley Simon), Buffet (Warren and Jimmy) and Walton (Sam and John-boy). Show me a person over 25 who hasn't heard of Schwinn, and I'll show you an illiterate, blind & deaf recluse, or a long-time drug addict. That's what it would take, sorry if it sounds harsh.

The Schwinn family that I know is Richard and Shoe Schwinn (Debra Shoemaker, married Richard) and their children Anna, 21,and Tucker, 18). I know them only because when Bstone closed and Rivendell began, I needed somebody to make frames for us, and Waterford had the goods to do it, so I proposed it and they agreed. That was in 1994, and for the next three years, Waterford made Rivendells.

Ultimately our needs as a customer and theirs as a supplier went different ways, but the parting was stupendously amicable. and I attribute that entirely to Richard and the whole Waterford crew—the best, nicest, easiest-going people you'll find anywhere. You cannot know them and not like them. You can't have a conversation with them that you'd wish would end.

I think we all know somebody, about whom it can be said, that if you call them a jerk or think them a jerk, you must be such a miscreant that you should probably be clubbed in the knee. That sums up Richard for me. He is a terrific guy.

The most memorable Schwinn experience I've had wasn't about bicycles and didn't involve Richard. There was a feast at the Schwinn's there, and Richard or Shoe sent Anna (then about 13) and me out to get the asparagus. We walked along the small road by the fields and looked under the telephone wires for it.

The birds eat the seeds and poop them out as they sit on the wires, so under the wires, that's where you find it. Asparagus grows like a kid would draw it, straight up out of the ground, with no distracting branches or anything. I'm sure there's a plant sometime, but the stalks we got were stuck right in the ground, surrounded by the grass or weeds or whatever else happened to grow along with it.

Anna was better at finding it than I was, but I caught on quick enough, and ended up picking more than I ate, which was the plan from the get-go. Always pick more than you eat, because others have to eat, too.

1. How old are you, where did you grow up, and at what point in your life did you realize that Schwinn is a household name?

I hit 52 this year. I was the third of five kids in the north shore suburbs of Chicago. Schwinn's fame vastly exceeded its fortune, so we lived in comfort but certainly not luxury. Schwinn was always a household name to us, so its fame didn't really hit me until about third grade—mostly because of the teasing of my classmates.

2. What did they say? The idea here isn't to relive bad memories, I'm just curious. What's to tease about?

It was all kid stuff. In retrospect it was pretty harmless, but it was painful at the time. I just wanted to be a normal kid, and they may have meant it in good fun, but it was sometimes pure torture for me. I didn't get over it until high school. Once I figured out how big the Schwinn name was, it was hard to have a sense of humor about it and myself. That didn't happen until I actually started working out in the factory and accomplishing things for myself.



The Waterfords. left to right: Joanna, Marc, Roger, Brian W, Brian B., Dave W., Eric H., John, Eric B., Dave H., Sean, Diane, Jim, Matt, E.J. Gunnar the dog is the one just below the Christmas wreath. He's the only one who gets to put his name on a frame.

On the other hand, I did have some pretty cool bikes as a kid. Dad brought home the prototype Sting Ray. For Christmas he gave me a Schwinn Corvette, modified to have 15 speeds, and I got my first Paramount right after high school.

3. And, do you think your children experienced the same?

No, thank God! The corporate Schwinn was out of their lives before they figured it out. Marc and I started Waterford, which was really good for them, because they could see it grow from the start. I have two children, Anna (21) and Tucker (19), and they grew up as normal kids and have both flowered. Both of them ride and like bikes, in their own way.

4. Did you feel obligated to go into bicycles?

Not obligated, but maybe "hormonally compelled." I won't say it's necessarily healthy, either.

5. If you hadn't been a bike person, what else might you have been? What are your other interests now, besides bikes?

Actually, I was a computer geek in the late '70s and early '80s during my self-exile from the bicycle industry. I like what technology can do for us and I enjoy the problem solving. Marc Muller's son Kevin is just out of college now and a real techie, and he and I have been working on internet based information systems for Waterford, our dealers and our riders. I love playing music, too.

6. Tell us some of what you know about the early years at Schwinn. Talk about Ignaz Schwinn—he was your grandfather? Great grandfather? And, how did you learn this stuff?

Ignaz died half a decade before I joined the human race, so everything I know about him is second hand or through the relics we've saved. Ignaz was an engineer-turned-entrepreneur. I'm not sure he ever built a Schwinn bike. They were either called World or one of many other private labels. He made a small fortune in bicycles in the 1890's but a much bigger one making motorcycles up until 1930. He lost almost everything in the '29 crash.

I did know his son, Frank, who died when I was nine. Even with this limited experience I felt his power. Frank was a perfectionist with a tremendous capacity for work, and had a lot of rage, too. He led Schwinn out of the Great Depression, through WWII and into the cold war. He had left a lasting stamp on the company by the time I worked in the factory in the early '70s.

7. Do you have brothers or sisters? Are they now or have they ever been in bikes?

Yes, as I've already said, I have four siblings, none of whom ride regularly. I've pedaled more miles than the rest of the family from Ignaz on down put together (and that's not all that much)—about what Freddie Hoffman rides in a year.

8. Well I forgot you'd already answered that, sorry. Have you ever owned a non-Schwinn/Waterford bicycle? And how about your Anna and Tucker?

Sure. I started with an Evans tricycle, and over the years I've also owned a Kestrel, though that was about the time Schwinn was buying them, so maybe that doesn't count. It was interesting to try a carbon fiber bike. We also bought a Burley tandem to ride with the kids.

9. Have your children owned unrelated bikes?

They've had more exposure to other bikes. After Schwinn was

sold, Anna, who was then 12, demanded a non-Schwinn mountain bike, so we got her a Trek at the local shop.

10. Did your children get bikes for Christmas, or were bikes so normal around the Schwinn compound that they weren't gift-type things?

As little kids we did give them bikes (or had our painter Roger do a cool paint job like the Ninja Turtles theme for our son).

11. College?

I went to Colorado University, of Denver, and got an undergrad degree in economics and a graduate degree in business.

12. What was your first job in your family's company?

I worked as a mechanic's assistant while in high school. During college, I worked in the maintenance department, to start out at the bottom—sweeping floors as it were. I made myself useful as I could, if not actually by sweeping, at least by doing the closest things to it—general clean-up and building maintenance. Sweeping was not the ugliest job to have in that factory, for sure.

I also worked as a mechanic on the assembly line. We made minor repairs as the bikes headed down to the shipping department. I also worked in the brazing department, brazing tandems and Paramounts.

13. How did the other employees treat you? Did they resent you for your birthright's advantage?

Most employees treated me with a deference that made me uncomfortable, since it could be a great way to hide their resentment. I think most people felt a genuine loyalty to the company. I found two kinds of people at Schwinn, people who told me what they thought I wanted to hear and those who told me what they thought was the truth. I gravitated to the latter. By the end of my factory days I think I earned respect from most of the people there.

14. Keith Kingbay was a key figure at Schwinn for many years. Say a bit about him, just for the benefit of people who've never heard of him.

Well, there's not a lot I can say. I'd encountered Keith through the years, but I didn't really have close contact with him until after high school. By then he was in semi-retirement. His importance didn't hit me until long after he retired. After all, he more than anybody else there was responsible for the 10-speed boom of the '60s and '70s. He brought Paramounts permanently back to Schwinn in the late '50s, as a world-class race bike, too. He rode his bike until the day he died, literally. He rode 20 miles one morning, and died the same day during his afternoon nap.

Keith used to drag me into his office and wax on about the past. He passed on all the lore about my grandfather, like the time Frank W. (as he was known) found the one bad part in a pallet of 5000 piece parts.

Keith was a company man, and did whatever was needed, and had unwavering loyalty to Schwinn. Visiting him became an increasing chore because he just never stopped talking—as old people tend to do.

One thing he did do was to turn me on to John Forrester and the LAW. He had convinced me that the problem with the bike market was that people had bought all these 10-speeds and most of them ended up hanging in the garage. He turned me into a life-long bicycle advocate.



Marc Muller, may be the best all-around bicycle frame designer dead or alive; and Richard.

15. When were Schwinn's best years, and how come?

Things were best in the late '60s, when business was growing and Schwinn was in the right spot, with the Sting Rays and Varsities. The dealers were the best in the country and loyal.

Even though the flash welded frames were heavy, the headsets, cable guides, cables, stems and other details were miles ahead of other boxed bikes, and they were easy to sell.

16. When were things hard? And why?

Aside from the 1890s and the late '60s, it was pretty much always hard in the business. After the turn of the century, bikes fell out of favor until the Great Depression hit. Schwinn turned its business around in the early '30s by injecting the bike biz with the Excelsior motorcycle engineers.

By the late '30s, we were back to a situation where there were too many bikes for the country, and then WWII put a lot of companies out of their misery. Only a handful started up after the war. Business boomed for three years after the war, but collapsed in '48. The Korean War kept interest in bikes low. Basically, sales were awful until 1963, when the Sting-Rays hit, followed by growth in derailleur bikes like the Varsity.

By the '70s Schwinn was making lots of bikes but got crunched between inflation and price controls. Schwinn's dealer network was a good deal for all concerned, but it rested on Schwinn's ability to set retail prices, which let Schwinn do the advertising and keep the retail price low enough to make the company's products look good compared to the Huffy's and Murray's of the world.

16.5 What were the dealer margins back then?

A typical margin was about 32 percent, which of course is low by today's standards. But it was really good for the shops that followed the Schwinn plan.

These dealers sold pretty much nothing but Schwinn. They could keep their inventories low. Selling was extremely efficient, assembly was easy—you could assemble a Varsity in 25 minutes. Even the biggest shops didn't need a dedicated buyer like today's shops do. The big shops created millionaires,. and the small shops still provided a solid income for the owner.

Then in 1976, price controls finally ended, but so did the fair trade laws, and aggressive dealers quickly raised the price of a Schwinn through pricey add-ons, charging for assembly and so on. That opened the door to cheap Asian bikes on which the dealers could get a better margin while proudly showing the Schwinn banner. I remember talking to someone waxing on about their Schwinn, telling me it was a Diamond Back model they got from their Schwinn shop.

The '80s started out bad for Schwinn, with unionizing, plant closings and farming out work to Asia. I was in another industry then, but could feel the pain.

17. In 1992 when Schwinn filed for bankruptcy and was eventually sold to Sam Zell's fund, lots of Monday morning quarterbacking journalists went public with their analysis, and I know that was a stressful time for all the Schwinns. What lies or misrepresentations would you like to erase or clarify?

Contrary to what you hear in the so-called history books, Schwinn was the leading mountain bike maker of the 1980s. In '88, if you combined all the non-Schwinn mountain bike sales, multiplied them by three, you still wouldn't have matched Schwinn's sales that year. Nobody caught up to Schwinn's mountain bike sales until the financial crash of '91-'92.

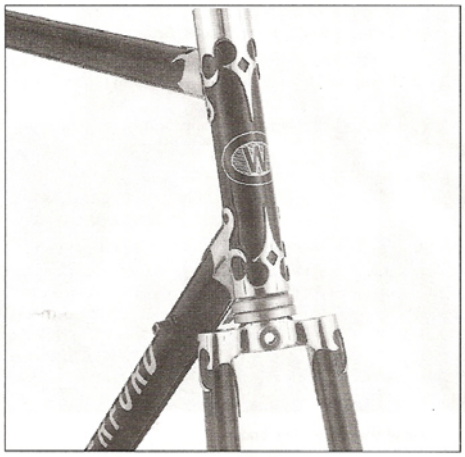
The mountain bike boom of the late '80s could not cover up the reality that the road bike market was deteriorating. As a result, the Asian bike makers had to fill their factories, so they partnered with companies like Trek, Giant, Cannondale and Diamond Back, to enter the mountain bike market. These brands all flooded the US market in '90 and they almost all fell into deep financial trouble in '91.

17.5 Schwinn was part of that shift, too, though. National/Panasonic made bikes for Schwinn, and I think Bridgestone did for a year or so, too. Right?

Yes. Al Fritz and Ray Burch developed this relationship in the 1970's as a by-product of their visits to Japan to negotiate with Shimano. They wanted to supplement Schwinn's production during the bike boom of the 1970s. Both were good builders, though Schwinn narrowed the supply to National after the end of the boom. National supplied a handful of bikes through most of the '80s and built the high-end PDG (Paramount Design Group) bikes during the early '90s. It was a pure prostitution of the name to create products Schwinn lacked confidence to sell under its own name.

It wasn't that Schwinn was behind the times so much as that the times had caught up with Schwinn. As more bikes were being built in Asia, it got harder to create the unique advantages Schwinn had developed in the Chicago factory.

To put Schwinn as a brand in perspective, let me tell you about some research conducted as Schwinn was trying to resolve its money problems. Schwinn commissioned some market researchers to evaluate the value of the Schwinn name. They discovered that consumers viewed Schwinn quite favorably and as being completely up to date, but that everybody else was, too. Bikes had become generic.



Waterford's top builders are capable of custom work equal to any. This one has stainless steel lugs, carved from Kirk Pacenti's blanks.

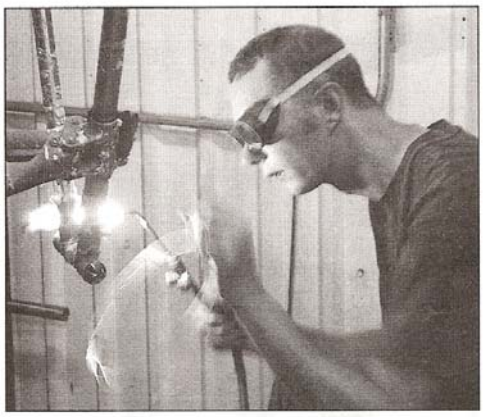
The Schwinn buyers didn't pay attention to this research. They listened to scuttlebutt which kept saying Schwinn was "behind the times." That's why they thought it would be easy to turn the company around. Four owners and at least a second bankruptcy later, it is only now starting to show some signs of life.

17.75. Isn't that inevitable, though? Schwinn was the family bike, which is a good thing to be, and certainly the only way to achieve that huge market share. Then as the adult bike market grew and people started getting snobby, Schwinn's family-bike reputation worked against it in a new, adult, specialized market. Grownups re-entering the sport didn't want to buy for themselves what their parents bought for them when they were eleven. The quality of the bike had nothing to do with it, just the perception. I can't think of a company in any field that is able to bridge from one distinct market to another.

No, it's not inevitable. Shimano sells components from family bikes to Tour de France winners and nobody questions the brand.

17.85. Some would say that Shimano is still selling components, and not bikes, though. There's a difference, maybe. But anyway…

Well, Schwinn just needed to use its name and build the right bikes and supply them at the right time. Consumers didn't consider the Schwinn name a handicap. It was dealers and Schwinn employees who had the attitude. Actually, dealers who stuck with Schwinn as their main high-end line did well



Dave, one of Waterford's fine brazers.

with Schwinn's high-end bikes. It was the dealers who wanted to have many lines who had the biggest problem. They wanted to "cherry pick" the product lines— choosing a bike here and a bike there.

The Schwinn Paramounts competed extremely well in the '80s. The problem with Schwinn's high-end bike sales wasn't the bikes, but how Schwinn conducted business between its domestic and foreign vendors.

For instance, by 1984, Schwinn had moved over 80 percent of its production oversees. To get supplies on time, Schwinn's product managers had to start planning in the summer to get the specs down and to place the orders. Since this was 80 percent of the business, they worked hard on it. When they were done, they started working on the specs for the Greenville, Mississippi factory, which made Schwinn's high-end bikes.

Unfortunately, this sequence of work was out of sync with market realities. Often, specs for high-end bikes wouldn't be completed until the middle of winter. These are the fashion-driven bikes for which certain specs are very important – like Modolo bars in '87. By winter, all the cool components were being shipped to the likes of Trek, Cannondale and so on, and we didn't get ours until May. By then, the bulk of the high-end sales had already happened, so we got stuck with a lot of inventory.

Schwinn used this inventory up through the beginning of the following year, because the same cycle happened again: the Asian bikes were spec'd first and the American bikes—the fashion bikes—were spec'd last. To fill the pipeline, the next season's bikes would start out with last season's parts. The dealers had a problem with this.

18. Supply continues to be the biggest pain for bike makers and sellers, isn't it? Well, let's go on. Tell us how Waterford began.

Okay. Schwinn's Paramount factory was being ignored and yet was actually making a small amount of money. Marc and I had been working together—he in charge of Paramount, and me running the Greenville plant—and we both wanted to rejuvenate the Paramount factory. When the Greenville factory closed, we moved some nice equipment up there in the hopes of growing the factory. At the time, Schwinn had been put up for sale, but the buyers didn't want anything to do with running a little factory, so Marc and I put a plan together to buy the factory equipment.

Since Schwinn had begun *importing* many Paramounts, they started calling the bikes from our factory the "Waterford Paramounts". After a careful search, that's the name we picked when we started our new company in 1993.

19. Well, good luck to you. I remember contacting you, or maybe it was Marc, and asking you to build Rivendells. The first ones came out in late 1995, and you built them through late 1997. What would you say led to the split? If it's any different than my story, I'll say my side of it, too.

I'd say there were two reasons for our split-up. First, from our standpoint, we found that the Rivendells were becoming increasingly custom and unprofitable. What had started out as an "everyman's" bike was becoming a true connoisseur's custom, combining almost endless variety with a level of finish work higher than what we were offering on the Waterfords. We saw an explosion of new models without enough demand to justify the design time. We proposed raising the prices to justify the extra work and you thought the bikes wouldn't sell at the higher prices.

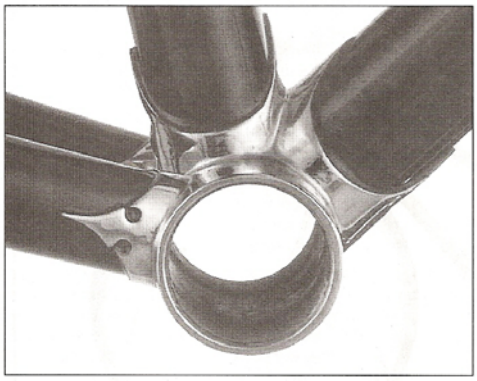
Second, we argued over tubing specs. We wanted to build from our stock of tubes, many of which were made to your specs, and you started requesting special tubes here and there, for certain bikes. You wanted tubes we didn't have. We wanted to have the last word, and so did you.

We had other issues going on as well – bends on fork blades, processing of custom specs and a variety of paint issues. Minor but irritating problems.

20. That's about the size of it, yep. When you say "everyman's bike," I should clarify that. When you and I went for that initial meeting walk in the Marin headlands and we were talking, at that time the idea was to have about nine stock sizes and geometries, and a limited pallet of colors. Then, over the next few years it became harder and harder to say No when somebody wanted a slight variant that made sense, or a different color, or now and then a different geometry or size. So what started off as a locked-in program with no variations grew into something that became sort of a headache, from an efficiency point of view. Then there was the fork bend issue. But that's about the same thing you said.

When you were building for us, you were strongly pro-lug, and I think you, or Marc, or somebody there said you'd never tig a frame under the Waterford label. But you started doing that about five years ago, right? It must have been a difficult decision. I mean, it must have been emotionally difficult at the time, but you obviously felt it was necessary. Talk about that.

The decision to add TIG-welded Waterfords was easier than you might think. We start TIG welding bikes—BMX bikes for Standard Byke Company, our very first year in business. In '98



The bb shell from the same custom frame on page 31. Details on the chainstay socket get lost once you mount a crank, but at least they're there.

we added the Gunnar bikes—all of which were TIG-welded. When superlight, strong, air-hardening tubes became available, the case for a TIG-welded Waterford was compelling.

For our top of the line Waterford bikes, we started out pro-lug because of the metallurgy of tubing available at the time. Low-temperature lug brazing was clearly the superior way to join Reynolds 753, the best tubing around. The embrittlement at the joints and the lack of repairability made it unsuitable for Waterfords.

Air hardening steels have changed everything. We got our first experimental tubes in '94 and built our first production bikes in '96. I don't think many people appreciate how revolutionary this advance is for frame design. This is the first major alloy change since the introduction of high-alloy steels like chrome moly and Reynolds 531 in the 1930s.

The performance of the base tubes isn't hugely different than for traditional high alloy steels. The big difference is that air-hardening steels get harder and stronger when they're TIG-welded. They no longer suffer from the embrittlement problem of the older generation.

The durability of these new steels has far exceeded our expectations. TIG welding avoids the angle limitations of lugs and the extensive tooling costs to buy new lug molds. This gives us considerable design freedom and flexibility not available through lug designs. We can even replace tubes like we can on silver-brazed frames.

Over the years, we've also developed a high standard of virtuosity in the quality of our welding. The tight, consistent TIG weld is just as hard to achieve as a beautifully finished lug. Since there's no polishing, flaws are difficult to hide. It requires the same mentality as fine calligraphy—especially when welding the 0.5mm walls on our current tubing.

Not that we've forgotten about lugs: Contrary to some of the early reports, air-hardening steels work just fine with low-temperature brazing and lugged frames are still the biggest category of frames we make. Since the strength of the base air-hardening steel is still stronger than Reynolds 753—even the lugged bikes have gotten a performance boost.

We still build Herons. They've replaced the entry-level Waterfords—our model 1100, RS-11 and RST-11. We still make our classic lugged designs, but a lot of the lugged bikes we do now use stainless steel lugs.

Stainless steel lugs avoid the need to chrome plate the lug areas. Chrome plating is not good for our new high-tech steels. Henry James had a good starting stainless lugset, but Kirk Pacenti and Richard Sachs have done some very fine work in this area. We're having a lot of fun using Richard's Newvex™ lugset, making bikes that look like the classic Paramounts but with today's tubes. Just a couple of weeks ago we built a 58cm frame that weighed in at 3.75 pounds—nearly a pound lighter than the older generation frames, but looking just as pretty. We've also gotten into hand-carved lugs, which has transformed our brazing into true artistry.

21. The "angle limitations" of lugs can be eliminated by new lugs. That's why we have so many. I just wanted to point that out, so nobody reading this thinks we're designing our frames around the lugs. We design the frames, and if we need new lugs for them, we have them made, and yes, it's expensive. Anyway, 3.75 pounds is light for a 58cm frame. How many Waterford frames do you make a year now, and how many are lugged?

We don't release those numbers, but I can say that lugs are about half of our current Waterford-label production (and, of course, none of the Gunnars).

22. What percentage of your business is private label? You make the Standard BMX bikes, and Herons. Anything else?

It varies. Right now it's about a third of our business. Last year we started making a recumbent for Volae, a company based out of a fine shop in central Wisconsin. We've been bringing custom bike quality standards to the recumbent world and it's been a really good business.

23. About ten years ago you introduced a modern lugged steel mixte frame, the Diva. Talk about that, and talk about sales of it, and plans for it in the future. You know, I wanted a sample to review, and I asked for one a year and a half or two ago and never got it. We could still do it, you know. Anyway, talk about the Diva.

The Diva is a ladies bike, not a women's bike. As a make-to-measure bike, we can make it as woman's specific as necessary. We look at it more as just another way to serve our many different kinds of customers. It's based on Road Sport handling—itself very much like your classic Riv Road handling.

24. You should send us one to show in the Reader. Anyway, you've made bikes for some famous people. Howard Stern, for one. Who else?

Yao Ming, Robin Williams and Howard Stern are the names that stick out. Most celebrities appreciate discretion. We found out that Howard had ordered a bike when we started getting calls from his fans saying how he was talking about his bike on the air, complaining that it was taking too long. But it wasn't entirely fair, because at the time, we hadn't even received the order from the bike shop.



The Waterford Diva, a "step through" frame for women. It uses sidepulls front and rear.

25. How locked into American-made bikes are you? Can you imagine a set of circumstances or a change in the environment that would have you seriously considering "making" Chinese carbon fiber bikes, for instance?

We're locked in. My roots in American bike building go back 110 years. I want to make bikes, not import them. I think America should make more things, not just farm them out. The last twenty years have been rough for American manufacturers. For decades, America took manufacturing for granted and now we don't make much anymore. Experts say our contribution to the world economy should come from our "intellectual property". I don't discount the value in that, but there's a lot you can learn from building it here rather than there. Manufacturing creates jobs, increases average pay and strengthens our national defense. People of every political stripe have a reason to increase our nation's manufacturing base.

26. What is Waterfords biggest frustration these days? What's holding you back or keeping things from running as smoothly as you'd like them to? I don't mean to imply that there are problems, but if somebody asked me the same, I'd have an answer, and I imagine every business owner can answer that question. So, what's your answer?

I'm not satisfied with anything about our business. You name it, we're not where we should be, but at least we're making progress. Every day has its small problems, and they make it hard to focus on the big ones. This year has been the supply of carbon forks, which, for the most part, are moving to China from the US.

27. Then why don't you make them here, and help the country as you go?

It's one thing to work in steel, but carbon is different entirely. It takes money to set it up initially, and it's not out of the question, but it won't happen overnight, or even in the next few years. We've got a full plate as it is.

Back to your question about frustrations, though, my biggest frustration has been poor information—whether orders, specs or statistics. Most of the time, our quality and delivery issues come from not having the right information to the right person at the right time. This year, we've placed a special focus on getting good information, and on time. That's the key to achieving everything else we need to accomplish.

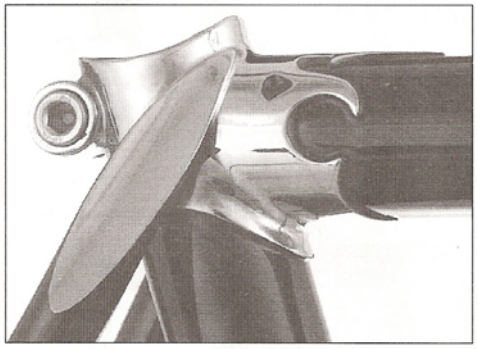
28. What's Waterford's strong point? Be as specific and concrete as you've ever been.

The best thing we have going for us is a really good, flexible and stable team with some of the best bike building talent in the world. Most people can work in most parts of the shop. We have three people who can TIG weld, but two of them can braze. We can shift painters to machinists, machinists to brazing and so on. What's more, everybody's been through their learning curve. We grew very quickly in the late '90s and brought in people more quickly than we could really train them. Now we're settled and committed.

29. How do you hire or recruit for blue-collar factory jobs in these times, when people in their early to mid-20s figure the world owes them a $45K starting salary and a killer benefits package?

We have a constant stream of people interested in joining our company, but it's hard to find the right combination. While it's great to have bike people, it's rare to find a cyclist who's committed to productivity and wants to live here, near Waterford. Every so often, we get a talented person who wants to join us and stay. As a strategy, growing from within remains the best way to develop the quality, long-term productive employees we need to serve our riders.

30. If somebody gave your business $500 thousand, what would you do with it?



A custom stainless lug, started out as a Pacenti. Nicely polished, beautifully carved. Good work.

That's a lot of money for a business our size. I'd be worried about the pressure to change what we are. If left to my own devices, I'd want to use it for better tools, more training, more testing, better information systems.

31. How many brazers do you have now? Will you tell us their names and histories?

Everyone in our fabrication shop performs at least some brazing. We have five people who can braze from start to finish. All but one were developed from within. They've all been working for us for at least four years, and we "divide and conquer" most of our production, so on any given frame, at least 8 people will have a direct hand in getting everything right. On most frames, the number is 10 or 11.

32. Is that an inherited approach from Schwinn? On high-end frames, it would seem to be a better idea to have each builder sign his or her frame, for the personal touch and the perception, at least, that if one person's responsible for it, they're going to be careful. On the other hand, I can see the benefits of this guy does this, that guy does that, too. Comment on that, and also on any fears you might have that if a builder developed a name for himself there, he might hang out his own shingle later, having learned the craft on your dollar. So, it's sort of a long multi-part question, but I think it's a good question, so please, please answer it.

There are lots of ways to build bikes. If I was a one man shop, I'd sign my frames. But we aren't a one person shop. When I say that we have many hands on the frame, I'm talking about hands that make a tremendous difference in the rider's satisfaction. Did we give you all the specs you asked for? Did we give you a good design? Did we cut and prep the tubes properly? Did we paint it right? Did it get packed right? In the case of a TIG-welded frame, the person who welds the frame is not typically the person who adds seat stays and the braze-ons. That's why it's Waterford or Gunnar whose name is on the frame. That being said, we do keep records on who builds what frames if we need to. I have thought about having everybody who worked on an order sign it but we could just as easily lose the impact of doing it when it's only one of 14 signatures on a card. Everybody takes a lot of pride in their work and pride in being part of Waterford, and the results speak for themselves.

Last year we built last year for Dennis Pontius, owner of Two Wheel Tango, a really nice shop in Ann Arbor, Michigan. I showed it to you at the trade show last year. To build it, we actually fabricated the lugs from stainless steel, then carved them to spec and then brazed them into the bike. We called on the virtuosity of Sean the welder as much as that of Dave the builder. Another Dave polishes like nobody else—and, I assure you, they've all tried. In the paint shop, the look depended almost more on Brian, who masked and unmasked the stainless work, as it did with the work of Eric, who actually painted it. Way too many people had to go over the top to make this project a success.

Yes, I have an occasional Walter Croll nightmare. Walter was the famous Minneapolis builder whose ex-apprentices spawned several custom brands in the twin cities area. Even going all the way back to the Paramount days, we've only had two people who ever built frames after they left us and even then only a couple frames a year at most.

33: Why do you think that is?

Well, nothing about the way we build bikes prepares people for what they need to do to build them by themselves. Our tooling is too industrial. We've developed hundreds of specialized fixtures and small piece parts through the years. Though a good frame builder doesn't need all this, we don't show people how to build without our tools.

Then there's all the not-frame-building work frame builders need to do to stay in business. Most builders don't like to paint bikes. They like even less to sell them, and nobody likes trying to collect money and pay bills. At Waterford they're spoiled by having comrades to talk to and a regular paycheck —things they lose quickly when they start their own business. We also hire people who like working on a team. I'm not even sure they can interbreed with the kind of people who like to work alone.

34: They might try now and then, though. Your bikes are so nice, why don't you put head badges on them?

It's been on the burner for some time. One of these days we'll get around to it.

35: It's not so hard or expensive, and I'll bet you have 2,000 Waterford owners out there who'd be happy to spend $20 for a badge they could mount right over their decal. That would pay for the tooling. Just make them a hair larger, so the decal doesn't show.

That's a good point. I like your badges, not to mention the bikes and the culture you've developed around them. Thanks for the interview and best wishes for you, your family and Rivendell.

36: I get your drift and I'll drop the badges. Thanks for the talk, Richard. GP