

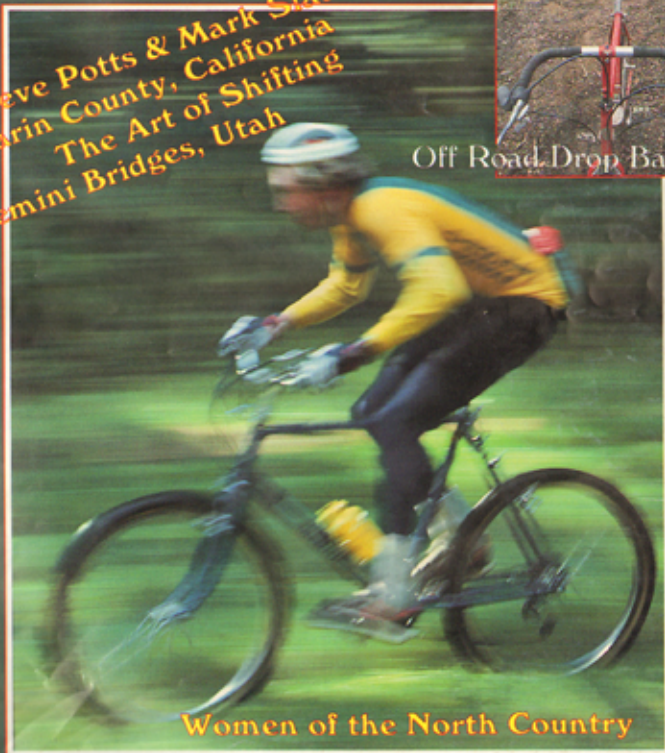
# mountain bike

May-June 1986  
Vol. 1, No. 6

Steve Potts & Mark Slate  
Marin County, California  
The Art of Shifting  
Gemini Bridges, Utah

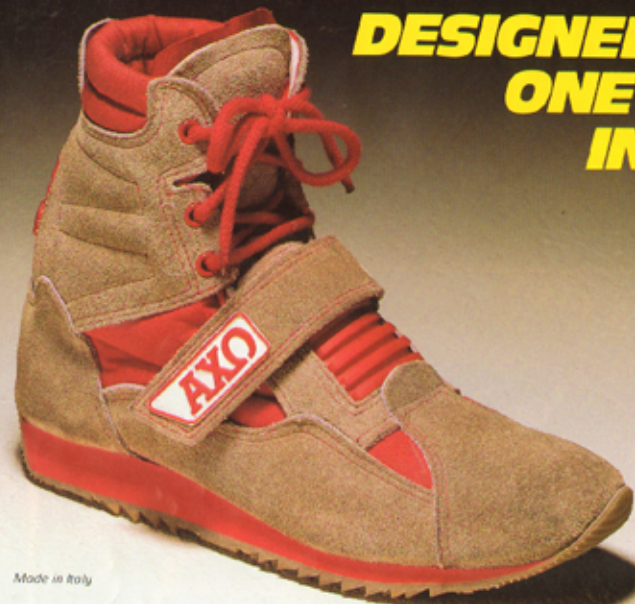


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# mountain bike

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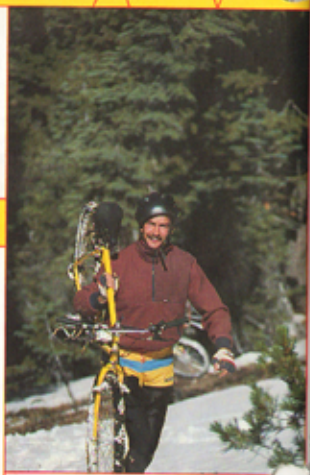
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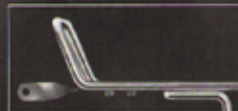
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Inset: Wilderness Trail Bikes new off road drop bars. See New Products

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# Editor's Note

By Hank Barlow



The skeleton that supports the mountain biking industry is the network of bike shops scattered in every city, town, and village. Without the local bike shop, you and I wouldn't be riding these bikes through the backcountry. Manufacturers wouldn't even be building them.

Reasons are varied, the need for some sort of distribution system from builder to buyer being the most obvious one. But a shop's value goes well beyond simply serving as an outlet. If that's all they did, mail order shipping would be even bigger than it is and probably run directly by the manufacturers. For most of us, thumbing through a catalogue is no replacement for the hands-on experience of looking at and trying out what we're interested in. Growing descriptions, no matter how well written, can't begin to compare to the value of face to face advice.

It's an open market and shops are relatively free to carry any company they want. I say relatively because there are certain controls exercised by manufacturers. Schwinn probably will not open a Schwinn shop next to an existing Schwinn dealer, for example. But other than that, when the dealers head to the trade shows, every one of them looks around, checks out the products, the service, and the prices and terms. They then order accordingly. That's the first stage in the winnowing process that eventually delivers to you and I the bike we want.

The local shop's ability to then maintain what we've bought is of even more value than the sale itself. Few bike owners have the tools or even the inclination to properly maintain their bikes, much less the knowledge. That knowledge is gained through countless hours of repetition, repairing time after time problem after problem until doing so is almost automatic. All a good bike mechanic needs to hear is a few vague words on what seems to be happening and instantly, their years of experience come up with the solution.

But in my mind, there are even more pressing reasons why the local bike shop is the heart and soul of biking. Invariably, the folks who work there are enthusiastic bikers. Even if the shop owner isn't, it's all

but guaranteed that the shop manager will be. And if he or she isn't, the guys in the back room working on the bikes will be. That enthusiasm translates into knowledge that continually advances the sport. They're the ones who are out there discovering new trails to ride and new techniques to ride them with. They're also the ones who are forever experimenting with equipment. If a new component is introduced, they're the ones who will take it out and do everything they can to prove they can break it or that it isn't as good as an already existing component. If they fail, they'll be believers of that product and we the customer are the ones who will benefit.

It's a matter of pride. It's their business. I don't care how much hype a manufacturer comes up with about the "latest, most advanced gizmo yet designed", without the active support of the local bike shop, the product will fall flat on its face. And that support is gained only through experience that has proven the product works and will stand up to the abuse the bike shop's customers will load it with.

Ah, you say, but what about when one shop claims Brand X is the best while another claims Brand Y is the best? Who do you believe? Possibly both of them. There are so many products on the market that both shops could very well be correct. No single bike or component is the "best". Such claims are subjective and based on personal quirks, not scientific reasoning. The bottom line is how does a bike or component work for you. If, for example, you have a fixed idea on what the "correct" geometry is, you may miss out on a bike whose geometry doesn't meet your criteria but whose ride is exactly what you're looking for. So naturally every bike shop is going to have different opinions. But that's all they are, opinions.

Your local bike shops are invaluable information resources. Taken advantage of, you'll end up with precisely the bike and components that are correct for you.

The trick is to listen to their opinions openly and try out the products for yourself to decide what feels right. They work on bikes every day and their opinions of what works and what doesn't is based on countless such experiences, far more experiences than any magazine editor will ever have.

There's nothing a good bike shop appreciates more than a "valued" customer. A valued customer is simply one who frequents the shop on a regular basis whether he or she purchases something or not. As a valued customer, you'll have it made. Need to borrow a tool, no problem, help yourself. Need a quick adjustment, they'll gladly show you how to do it yourself for no charge. They're there to insure your cycling experiences are a pleasure.

Unfortunately, too few bikers draw upon this great resource of information and assistance. Discounted bike prices can too often seem more important than the long term service relationship inherent to the local bike shop. The fact of the matter is that mountain bikes require maintenance. Hammering over trails and dirt roads takes its toll on any bike. Being able to walk into a bike shop where you're known because you bought the bike from them and have regularly had it serviced there can be an invaluable comfort after returning from a ride with a bent rim or a broken derailleur. That comfort will outweigh any savings you may receive from a discount. Unless you're totally capable of maintaining your own bike, you'll need a bike shop at one time or another. In the long run, you're better off establishing and maintaining such a relationship from the beginning. You'll save money and have a better bike because of it.

So there's far more to your local bike shop than just a place to buy a bike or an occasional component. You'll find friends and information plus the best in equipment at competitive prices and the loving care every mountain bike needs.

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We apologize for the mix-up in our March-April issue on Mark's column. Please see pg. 34, middle column, 2nd. paragraph down for the beginning of his piece on forks.

## Mark Slate

### Drive Line Performance

A bicycle's drive line consists of the chain, chain rings, freewheel cogs, and derailleurs. Shifting between various combinations of chain rings and cogs provides different gear ratios, usually referred to as "gear inches." Gear inches are arrived at by multiplying the number of teeth on the chain ring by the tire diameter, then dividing that figure by the number of teeth on the freewheel sprocket. (For the actual distance traveled in that gear, multiply by  $\pi$ .) The purpose of defining gear ratios in gear inches is to enable careful selection of chain ring and freewheel cog combinations. The objective is to avoid duplication of ratios in commonly used combinations while still providing desired lowest to highest ratios with steps in between falling at equal increments or as close as possible.

Certain chain ring and freewheel cog combinations should be avoided, specifically, the smallest chain ring with the smallest cog and the largest chain ring with the largest cog. Those combinations force the chain to engage the sprockets at an angle, resulting in the teeth being shaved by the chain. Shorter chain stays accentuate this problem.

Although my bike is presently set up as a "21 speed," I use only 10 or 12 combinations. Admittedly, I'm somewhat of a fanatic on chain misalignment but those ratios that I rarely use are also harder to shift into or out of.

A proper chainline is attained by the central placement of the chain rings relative to the freewheel's center. I prefer aligning the two so as to bias the chain rings slightly inboard in relation to the freewheel. Correcting a poor relationship can be a major undertaking requiring either facing the bottom bracket shell to move the spindle and therefore the chain rings closer to the seat tube or using a greater rear axle length and realigning the frame by cold setting to move the freewheel outward. The latter method is preferred. Not only does a longer rear axle improve chain line bias, it provides

increased wheel strength because of minimal or no dish. The longer axle also moves the chain further away from tire knobs, reducing the possibility of the chain catching and jamming between the tire and chainstay, causing at least a brief stop and sometimes a bent or broken chain.

A second key to driveline performance is the size of the chain rings relative to each other. If the middle ring is closer in size to the small ring than the large ring, shifting from small to middle may be troublesome. The chain often wants to engage the large ring instead of the middle. A 26/36/46 chain ring combination is common and shifts fairly well. A 26/38/46 shifts better while a 26/34/46 makes engaging the middle ring on an upshift difficult. I also feel that anything greater than a 12 or 13-tooth difference in chain ring size to be too great an RPM variation for rider efficiency.

Closely related to chain ring size is front derailleur performance. A front derailleur pushes the chain laterally until it is picked up by the teeth of the adjacent ring. The derailleur's performance is dependent upon the angle and proximity of the cage to the chain and chain ring. When positioning the front derailleur, align the outside of the cage with the large chain ring about one millimeter away from the teeth and rotate the clamp on the seat tube so the rear of the cage is about one millimeter further outboard than the front. Adjust one set screw so the cage stops in line with the middle ring. Adjust the other so the cage clears the chain by one millimeter in the highest gear with the chain under tension.

The rear derailleur's performance is also largely dependent upon alignment. Rear derailleurs can be easily misaligned when a bike is dropped on its right side. The derailleur itself rarely bends from the casual contact; the derailleur hanger is what ends up bent. The hanger is an integral part of the dropout but easily realigned with a tool made for this purpose.

Rear derailleurs differ widely in design and construction. To temporarily avoid an in-depth look at design features and failings, I'll tell you what works for me. I've found an offset jockey or feeder pulley or slanted parallelogram advantageous in controlling chain movement. I avoid twin pivot and super long cage derailleurs because of their inherent chain slap over rough terrain and the consequent greater likelihood of derailment. Short cage derailleurs always feature a jockey pulley offset from the pivot point of the cage. I use them whenever possible.

Short cage limitations are chain tension and the inability to handle super wide ratios. There are no disadvantages to a slant parallelogram. It allows the action of the derailleur to follow the profile of the freewheel. With the chain held close to the cogs by the jockey pulley, shifting becomes snappy rather than sluggish.

The design of the chain and freewheel cog teeth have been given considerable thought by the two major builders of freewheels designed for off-road use, Suntour and Shimano. Their philosophies, patents, and approaches vary. Consequently, using a Suntour chain on a Shimano freewheel or vice versa will give you less than the best possible shifting. Suntour's "Ultra" spacing, requiring the use of a narrow chain, provides one more cog in the same given dimension (seven speeds instead of six) but with the disadvantage of a somewhat more finicky adjustment.

Lubrication also plays a major role in shifting performance. Lube the chain frequently, also the derailleur and shifter pivots though less often. The cable housing should also be periodically removed to clean and lubricate the wire and housing.

Proper setup and maintenance is one thing but choice of ratios is quite another. Individual preference in gear range and spacing varies greatly. Some cyclists don't want low gears. Some don't want high gears. The spacing or jump between gears may be closer at the low end or the high end. These preferences evolve over time. My own evolution has been to more gears with lower and higher ratios. Over the years, I've used 1, 2, 5, 7, 10, 12, 14, and 21 speeds. I currently prefer a closer concentration of ratios in the higher gears.

Riders carrying greater loads in hilly country would probably prefer closer ratios in the low gears. Racers usually want wide ratio double chain rings sometimes with a small ring added for use on very steep grades only. Another related preference is crank arm length, usually in proportion to leg length.

What I've given you here are guidelines to help you optimize your present drive line's performance or to custom tailor a brand new system. If you have any questions on this subject or on any of the past columns, please feel free to write me care of this magazine. I'll answer those questions in future issues.

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"Coulees, eskers, kettles and kames, whence thou go it's more or less the same." Some Shakespearean witches' chant? Not exactly - this is the stuff from which North Country mountain bike riding partakes. Serpentine ridges of gravelly, dusty drifts and small deep valleys in quick succession. Ridges of fragmented sand and freeze-broken rocks. A glacier-graded landscape that taxes the mettle of men, women, and bikes. This is the territory that is home for the Chequamegon Fat Tire Festival and its first place women's finisher, Martha Kennedy.

Kennedy's first place finish on the same 40 mile, point to point course that saw Joe Murray come in second in the men's race earned her the title of NORBA Midwest Women's Champion. The race began in downtown Hayward, WI - site of the American Birkebeiner X Country Ski Race. A couple miles of pavement was followed by logging roads, National Forest Service roads, snowmobile trails, and utility line cuts. Twelve miles of the route followed the Birkebeiner course. The aforementioned geologic splendors appeared amongst generous quantities of mud and grass with a common confrontation consisting of a mud hole immediately followed by a sand pit at the base of a rocky climb.

The Chequamegon Fat Tire Festival is an event the entire community enthusiastically supports with volunteers and sponsors stepping forth to insure a first class event.

Mark Fries' first place finish in the men's race was rewarded with a new Montaneus bike, donated by American Bicycle Manufacturers. Ms. Kennedy's first place finish was rewarded with a pair of RM-25/XC wheels. Both winners also received ceramic trophies made by local potters.

Martha Kennedy, like the better known Jacqueline Phelan came to mountain bike racing with no prior road racing experience. Her first race was a spur of the moment decision. She attributes much of her success to her mechanic Lolly Heden and to her custom Paterek frameset, designed by Heden and Paterek. Heden, who stands 5'2" tall and weighs in at 115 lbs, is service manager at The Freewheel Bicycle Coop in Minneapolis. Heden's mountain bike, named "Green Slime" and also a product of the Paterek frame shop, was the inspirational forerunner of Kennedy's yellow and splatter-painted frameset.

Things slow down dramatically during Minnesota and Wisconsin winters. Little biking is done and that only by the hardest of the hard core. It seemed an opportune time to sit down and learn more about these mountain bike women and about life on two wheels outside the white lines in this part of the world.

MBM: Does the racer work in a bike shop, or the mechanic ever race?

MK: No, Ms. Kennedy does not work in a bike shop. She is an absolute idiot around tools.

LH: And I have no plans to race.

MBM: Do either of you have any particularly strong preferences for components?

MK: The short cage rear derailleur for quick shifting. Races here are spent shifting gears to the point of getting extremely sore thumbs. A good chain is a must.

LH: I really like a drive train combination using the short derailleur cage. I also like sealed components. We haven't had any problems, and they're replaceable cartridges anyway. In the midwest, roller cams aren't the hottest. Mud and grass build-up is pretty bad.

MBM: Lolly, how did you become a mechanic?

LH: I had a friend on the Freewheel hiring committee, and I got a chance. I had no prior experience, and didn't even ride much. But I enjoyed it, and worked hard. I never encountered any prejudice from other workers and had some very good teachers. I was a human sponge.

MBM: How would you typify male reactions to a female mechanic or service manager?

LH: It's getting better. Its fun when a customer won't take my word for something, and they ask to see the service manager. Then I grin and say "You're looking at her," and watch their jaws drop. But all in all, it's pretty good. I think a lot of it is how you carry yourself. If there is a customer who is being a major problem, I just ask them to leave. I always hire a couple wrenches who can pass as bouncers, but Freewheel is also known as a very progressive environment and the majority of our clientele are quite sophisticated so it doesn't surprise them.

MBM: Any favorite anecdote?

LH: People get a kick out of watching me work sometimes because of my small size. I sometimes need to resort to drastic measures, as on a three year old ATV that had never been worked on, but had been ridden every winter. The handlebars were frozen in the steerer tube, so I ended up clamping the fork crown in a vise, and standing on top of the bench pulling on the handlebars. Eventually three of us pushing and pulling got those damn bars out!

Another time on a similarly frozen set of handlebars, they popped out and split the skin between my upper lip and nose. I had to walk around with a butterfly bandage under my nose, and the staff saluting me like I was Adolf Hitler.



Lolly Heden

## A report on two NorthCountry women

by P.Y. Samek

Martha Kennedy



MBM: Martha, how did you get into NORBA racing?

MK: I'd been riding mountain bikes for a year and just decided to enter the Gant Challenge in Minneapolis. I won my class, almost won a bike, and had a lot. I decided a few weeks later to enter the Chequamegon and after that I was hooked.

MBM: Do you prefer pro-am circuits or race tour events?

MK: I still like point-to-point race-tours. I feel like I'm actually going somewhere, and the course is usually long enough that I never quite know what's coming up around the next corner. I like to race and put my body through various tortuous acts, but not everyone does. I want mountain bike events to be kept open to anyone who wants to ride a course, whatever their skill level. It seems to make the atmosphere less dog-eat-dog, more fun.

I'm starting to like longer circuits where I can get into a rhythm as I get to know the course, and I know exactly where my body clicks into its racing gear as each lap gets smoother, almost easier.

Both circuits and race-tours are needed: circuits so that those who are super-competitive can always have a challenge. But in order to keep what I feel is the true mountain bike flavor, the camaraderie (what keeps these events so different from USCF races), there also needs to be race-tours.

MBM: Were you particularly athletic prior to mountain bike racing?

MK: During high school, I did road tours that were almost races. They were 80-120 mile organized rides that we rode as fast as we could. We also did 24 hour marathons. I was on a rowing team as a Senior and had done some competitive swimming. But basically, I've bike toured consistently since 1970.

MBM: What are your day to day riding regimens like?

MK: I usually ride 20-40 miles per day, and there might be 10 off-road miles in that. During the week, I try to get one good hour to hour and a half off-road training ride in. On weekends, I'll have a race or go to the forests for a slower half-day ride with friends. I also go off by myself once on the weekend for a good, hard off-road training ride as well.

LH: Spring, summer, fall - 20 miles a day commuting. Two out of four weekends I'm off riding in the woods. During winter, I ride rollers and cross-country ski.

MBM: What are typical northern midwest courses like?

MK: There are several races in the LaCrosse, WI area, and that means coulees. You climb straight up, then fly straight down. Midwest also means mud. What could anyone say to Joe Murray's question, "Will dust be a problem at Chequamegon?" I hope he didn't think we were laughing at him. In Tomahawk, WI, there's the infamous "Army-Navy HS" with a steep uphill, a 45 degree turn onto a two foot drop that puts you on a very steep, loose sand with rocks mixed in downhill, then straight back up again.

MBM: Who have been some of the regional sponsors?

MK: The LaCrosse races are sponsored by The Coulee Climbers and Helman's Old Style Beer. The Tomahawk Regional Chamber of Commerce sponsored a race with Coors, and Miller and Montaneus was a major sponsor at Chequamegon.

MBM: Do you have any favorite sites in the Twin Cities area?

MK: Hay Creek Recreation Area in the off-hunting season. Miles of trails with everything: mud, sand, steep rocky climbs and descents, hard-packed rolling trails for speed work, woods, streams, and swamps. Another favorite is to go east and do a few laps around two separate off-road courses at Battle Creek. This coming season should bring a number of additional areas to legally ride in. Lolly and I will be working with someone in the Forest Service and a person from state park planning. We'll be exploring trails within the state park system to find which ones could be good for bikes and won't interfere with other recreational uses. These will then be designated for bikes (we hope) with signs and everything.

LH: There's also a state forest that runs from Red Wing to the Iowa border. There are five recreation areas within it that are multi-use designated. It's in the coulees, so it's a lot of climbing and descending. Then, of course, there's the Chequamegon Forest in Wisconsin, a three-hour drive away, with absolutely wonderful riding.

MBM: Do either of you have a favorite off-road anecdote?

LH: Once we had one of our best times when we came to a spring flooded ditch we had to cross. A friend who had never been out off-road riding was with us on a borrowed ATB. We were a little leery at first, it looked about knee deep and cold. I went first, and fell over. It was a lot deeper than we thought, more like waist high! Soon we were going back and forth, just to see who could "clean" the ride. The bottom was full of ruts and pits you

Continued on pg. 27



## Keeping your bikes safe during transport



On top of the car is not the most convenient place to carry a bike. That's why it's important to use a rack that normally passes unnoticed when your bikes' wheels when they smack the pavement when the car's rear wheels drop into the depression. Or another car gets a little too close and, oops, sorry about that. Or you just want to get into your trunk or latch back and can't.

The best place to carry bikes is on the roof, especially if you've got more than two

bikes. Because of all the test bikes that pass through our office and because of the six months of snow we usually have, we're forever packing bikes around. On the roof of our Vanagon.

Two of the best roof racks are by Thule and Yakima. The Thule is Swedish, the Yakima from Washington. Despite their vastly separated origins, the two racks are pretty similar in design. Both are multi-sport carriers. In other words, they have attachments for skis, bikes, kayaks, and wind surfers. Both companies have gutter mounts and non-gutter mounts. They both use what Yakima calls a "tower". That's what attaches onto the

gutter. Spanning between the towers are bars, a round one for Yakima, a rectangular one for Thule. The various attachments mount onto the bar.

About the only differences between them is how they attach to the bar. Yakima uses a clamp that kind of squeezes onto the pipe and then clamps down with a very large wing-nut affair. Thule uses bolts and screws. The consensus is that Yakima's is a bit easier to put on but then it's also easier to steal. Both racks lock to the car but the attachments themselves can be lifted. The Thule requires a tool, the Yakima doesn't.

Both companies also have a variety of bike mounting styles: fork mount, upside down mount, and with both wheels on. The consensus around here is that the front fork system is much easier.

Especially with the quick release hubs that are becoming more common on mountain bikes (at last). Just lift the bike up and place the rear wheel in the tray then clamp the fork into the quick release holder. Strap the rear wheel and you're off. The spare either goes in the car or into the spare wheel carrier conveniently located next to the bike. The others work too but we've had less hassle with the front fork mount than anything else. They just seem cleaner and easier.

We use both the Thule and the Yakima constantly and love 'em both. We've had zero problems, even with six bikes on the roof.

## The Art of Shifting

by Turner Brown

If you can ride a bike, you can ride a mountain bike. No other bicycle is easier to ride. In fact, if you can't ride a bike, you'll learn faster on a mountain bike than any other. They're that easy. But, as any experienced off-roader will quickly tell you, there are certain skills the learning of which will dramatically enhance your enjoyment.

Shifting into a lower gear is one of those skills. Acquiring that ability requires the rider's full attention and is learned only through conscious effort and practice. Nothing so immediately demonstrates a rider's rookie status as the clattering of derailleurs and chains.

Mountain bikes have 15 or 18 speeds. Some have 21 speeds. That at times boggling array of speeds is created by three chain rings and a five-speed, six-speed, or seven-speed freewheel. Three multiplied by five, six, or seven equals the total speeds your bike has. But because of gear overlap, effectively you may only have about seventy percent of those gears. For example, if the chain is on the smallest chaining (the granny ring) and say the third largest cog of the freewheel, the effective gearing may be the same as if you were on the middle chain ring and the largest cog. A quick glance at the accompanying gear chart for 26-inch wheels will show you what I mean. The numbers refer to the distance in inches a 26-inch wheel will move forward during one complete rotation of a crank.

Okay, so what if two gears overlap? Why not use them instead of limiting yourself to only eleven out of fifteen gears? A couple of reasons. The first is chain wear. The straiter the line of the chain between chain rings and freewheel, the less wear and tear the chain and teeth will undergo. Running from the granny ring to the smallest cog bends the chain. The same situation occurs between the largest chain ring and the largest cog. The result is accelerated wear.

Secondly, with a mountain bike's broad range of gearing, the chain has to be long enough to cover the spread. In other words, it is almost always long enough to run from the large chain ring to the large cog. It may be stretched a bit and the rear derailleur arm straining in its efforts to give up all the slack, but it'll work. But that also means that when the chain is on the granny ring and the smallest cog, there's too much slack for the rear derailleur to take up. No rear derailleur arm can adequately take up all that chain slack.

The chain will bounce wildly during rough passages and possibly jam between the tire and the chain stay or even hop right off the granny ring.

If you're pedaling hard up a hill, chain slap isn't a problem. The chain tension will

probably equal the tension in your muscles. Coasting is when problems occur. That's why it's wise to shift up to the middle chain ring for the descent after climbing a steep hill. The chain will still flop (that's why most mountain bikes have a chain stay protector) but it'll be minimal.

So, don't cross the chain over. A general guideline for a six-speed freewheel is to use the three largest cogs with the granny ring and the three smallest cogs with the big chain ring and all six cogs with the middle chain ring.

*If you can't ride a bike, you'll learn faster on a mountain bike than any other.*

While shifting smoothly is an art on-road and off, off-road conditions require an even more refined skill than road riding. Mountain bikers rarely pass over smooth terrain. Shifting quickly and accurately when bouncing over rocks and hanging onto the handlebars isn't easy. Plus relatively subtle grade changes can instantly cause a mountain biker to shift up two gears while the same change on pavement simply entails coming out of the saddle for a short burst of energy.

One key to smooth shifting is reducing chain tension. The greater the effort applied to the cranks, the greater the stress on the chain. Minimizing chain tension is the result of terrain awareness. You've got to watch the trail ahead, know what your limitations are and what your bike's are and act accordingly before the fact.

Chain tension can be reduced by a high pedal cadence (spinning) or by a momentary relaxation of crank pressure. Spinning is most easily accomplished by riding in a lower gear than you might otherwise. The latter is the result of a short burst of power to gain speed followed by a subtle relaxing of that power and a rapid fire movement of the shifter(s).

That's not as complicated as it may sound. It's much easier than starting a standard shift car on a hill. For example, if you fly into a hill and suddenly find yourself bogged down and over-geared by about four cogs, your attempts to shift may be accompanied by the sound of tortured metal crying out while any riding

partners in the vicinity will look at you with a combination of amused interest and disdain. The trick is anticipation and instant reactions. The moment you discover your gear is too tall, come out of the saddle and hammer the pedals. Then, in one movement, sit down and jam the right shifter forward. Keep pedaling but with relaxed effort. If you only catch two or three cogs, come out of the saddle again and repeat the process. But be prepared to instantly move the shifter lever back a touch if necessary.

How will you know if it's necessary? Because you'll hear a noise like the chattering of angry squirrels ragging at you. That means the derailleur is slightly between cogs. Move the lever a tad. If the sound diminishes, that's the correct direction. If it grows worse, it's not.

Today's long reach rear derailleurs are marvels of shifting efficiency under trying conditions but even the best rebel at panic up-shifts under load. They'll do it, or give it a good try, but not without protest. But beyond the desire to not stress the equipment are the aesthetics of an elegant shift, one that goes unnoticed by another rider in close proximity. The feeling of subtly relieving the chain pressure while continuing to propel the bike up a hill, the solid thunk of the chain landing accurately on the next bigger cog, and the smooth continuation of your pedalling cadence are rewards in themselves. All are only achieved through rider awareness of the terrain, your pedal cadence and effort, and your equipment's characteristics. That and shifting always just a hair before you really needed to.

But sometimes even the most skilled rider's concentration is side-tracked by the scenery and he's suddenly grinding up a hill in far too high a gear and unable to force the chain over. In such situations, there are three choices. Push the bike up the hill, return back down and do it all over in the proper gear, or shift to the appropriate gear while dismounted (simply hold the rear wheel up in the air, move the shifter, and spin the cranks. Sometimes it helps to lift and move the chain to the desired cog then move the shifter for proper alignment). The easiest is to push the bike until the grade slackens.

All of the above has been directed towards the rear derailleur but the biggest problem for most bikers is at the front. Rear derailleurs are now so efficient that perfecting their shifting is simply a matter of practice and awareness. The front derailleur can be a different story.

The problem is wide range gearing. Chain ring sizing with a 24-tooth granny, a 36-tooth middle, and a 48-tooth large are not uncommon. Jumping between them is a challenge for any derailleur even when

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## Shifting

new and clean. Throw in complications like mud and dirt and twigs and suddenly you can have problems. Generally, the most frustrating shifts are down from the middle chain ring to the granny. Forcing the chain from one to the other isn't easy and particularly under load.

Anticipation is the key. Hit the granny before you need it, even if that means upshifting to the third freewheel cog to maintain cadence. I have yet to use a front derailleur that doesn't shift better with little or no load. On a hill, the shift can be impossible. The older the derailleur, the truer that is. Even models like the Suntour XC with its reverse action so the shifter pulls the derailleur over rather than springs pushing it over haven't completely solved the problem.

A fairly common malady of standard action front derailleurs is not completing the down-shift. The chain almost clears the middle ring, but not quite. The cage sticks part way over and the springs are unable to move it that final distance. One way to temporarily solve this is to tap the derailleur cage with your toe. A light tap will move it over just enough so the chain falls onto the granny ring. Obviously this eliminates the possibility of shifting when climbing but at least you can shift. Otherwise all you can do is regularly clean and lubricate the derailleur and keep it properly adjusted. And don't wait till the middle of a hill to shift.

But if you do find yourself in precisely that situation, try a power surge for a momentary coast while you shift gears. That's usually harder to accomplish with the front than the rear since you may have to eliminate all chain tension. Otherwise return to the bottom of the hill and try it again in the proper gear, push the bike to the top, or shift the chain over while dismounted.

Shifts from granny to middle, middle to large, and large to middle chain rings are relatively strait forward since you're accelerating and the chain is usually lightly loaded. As long as the derailleur is properly adjusted, these shifts are rarely troublesome. Use a fast, steady cadence with a very subtle lightening of pedal pressure and direct, clean shifter movements and you should always have smooth shifts.

The only real problem with these shifts is from the granny to middle. Moving the chain from such a small ring to a relatively large ring requires quite a bit of cage movement and can result in the chain jumping all the way to the large. All you can do about this is first, carefully select your front derailleur and chain rings. This might cost you a bit more than you'd planned on but it's worth the savings in aggravation. Minimize the difference between the chain rings. The closer they are in size, the smoother the shift. But in doing so, don't rob your lowest gear by

making it too large. No doubt you'll need some day. Other than that, all you can do is shift carefully and maintain proper derailleur adjustment.

Don't be afraid to shift front and rear derailleurs at the same time. Thumb shifters make this particularly easy since you don't have to move your hands on the grips. In fact, sometimes slightly stubborn rear derailleurs can be made to shift by shifting the front derailleur simultaneously. For instance, if getting onto the small cog in back is difficult, try shifting from the

second or third smallest cog to the smallest while shifting from the large ring to the middle. The abrupt slacking of the chain sometimes throws the derailleur that final bit of movement. The trick is knowing your derailleur's idiosyncrasies. But if such conditions can't be eliminated through adjustments, you'll need to replace the derailleur.

Always listen to your derailleurs. If, after changing gears, you notice a rattling noise somewhat like gravel in a hub cap, your rear derailleur isn't properly aligned

with the cog the chain is riding on. A slight movement of the derailleur one way or the other is all that's required to correct the situation. Any time the derailleur cage isn't directly centered beneath the cog, you'll hear the rattling noise. Rear derailleurs are either early, late, or neutral shifters. In other words, an early derailleur will toss the chain before the shifter is correctly placed for proper alignment, requiring further movement of the lever. A late one will require moving the lever back while a neutral model requires no movement. If

you're tuned into your derailleurs, you'll know to almost automatically make the adjustment as soon as the chain settles on the next cog.

A metallic rubbing noise is usually caused by the chain rubbing the front derailleur cage. Again, a slight movement of the cage is all that's necessary to correct it. That rubbing is often the result of shifting the rear derailleur. Any time the chain is moved more than two cogs in the back, the chain angle can change enough to bring the chain into contact with the cage. Again, all that's required is rider awareness.

Derailleurs are not precision instruments that automatically do what you want them to. Conscious effort on the part of the rider is required to fully capitalize on their qualities. Possibly the exception to this is the Shimano SIS shifters that are not yet available for mountain bikes. Even those require that the rider be aware of how they're adjusted and how they're working. They cannot be taken for granted. But then that's how it ought to be. One of mountain biking's great attractions is the participation level required. It's not an amusement park ride where all you do is sit back and let others entertain you. We are the source of our own entertainment. And there's little in the world that quite compares to smoothly exercising a skill mastered only after much conscious effort and practice.

## Gearing Aids

There is hope on the horizon for chain ring shifting. The Browning Automatic transmission is getting close to production. We won't go into how it works now since it's not yet available. But evidently it does in fact work, always. If tests prove their claims, you'll be able to shift chain rings anywhere, anytime.

Another boon to mountain bikers are the Shimano Bio-pace chain rings. Their elliptical shaped rings are computer designed to maximize the rider's efforts. According to Shimano, tests have

proven their advantage in all gear ranges. We don't have analytical data to support or argue their claims, just seat of the pants feedback.

They work. There is a very definite feel of increased power, especially when climbing hills on the middle chain ring. The rings are ideal for mountain bikers since maintaining a steady, high cadence can be quite difficult on rough terrain. Consequently off-road riders usually propel their bikes forward more with a powerful downstroke than with a fast spinning action. And that's where the elliptical shape comes into play. Somehow, it magnifies the force applied to the crank for greater forward thrust.

There's really only one complaint with the system: chain ring sizes are too limited, especially on the low side for mountain bikers. The smallest chain ring is a 28-tooth. A 26-tooth is considered standard for off-road while many prefer a 24-tooth granny. So it's not uncommon to see a round 24-tooth ring combined with Bio-pace middle and large rings. Others only use the middle Bio-pace ring and round rings for the granny and large. Shimano has also introduced a less expensive version of the Bio-pace rings. Check with your local bike shop for recommendations. And be sure to check that your chain, freewheel, chain rings, and derailleurs are all compatible.

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# Insurance: The End of Racing?

by P.Y. Samer

One of the current big buzzes in the cycling world - at least in this country - is the USCF hardshell helmet regulation for all racers. Reasons put forth by the USCF Board of Directors return to one central theme: insurance. It comes down to this: without the helmet rule (and some other new fee requirements), there wouldn't be any bicycle road racing because the federation would be without insurance.

The same thing's been unfolding in off road racing. Over the past few months, NORBA has, to use Glenn Odell's words, "looked from Panama to the Arctic circle" for an insurance carrier. Despite NORBA's previous adoption of the Z90 helmet standard and a history of no claims, these efforts have been of no avail.

In late February, Odell wrote a self-described last ditch letter to Mr. Dave Prouty and the USCF Board of Directors. It contained three separate proposals through which the NORBA race calendar could be preserved via a stronger affiliation with, or an actual assimilation by USCF of NORBA. As much as USCF would like to help NORBA, the board

turned down the proposals at its March 1 meeting. The USCF has its hands full with its own insurance crisis and felt there were too many unknowns in the NORBA proposals to take them on at this point.

What that means is that the 1986 race calendar could be pretty sparse, perhaps as few as six events instead of one hundred and sixty. Sure, there'll probably be a few non-NORBA races. Promoters of the larger races that can meet the \$1,000 per day premiums will conduct their events but we'll no doubt see those costs reflected in the entry fees. The only other alternative Odell could imagine was raising the annual individual dues to at least \$40 per year.

News stories about insurance costs and the havoc those price increases are causing in America are becoming commonplace. The entire outdoor recreation industry is being threatened, particularly any activity requiring government approval since those permits always require proof of insurance. Whether it's the insurance companies gouging profits, greedy lawyers, or people

just not taking responsibility for themselves, is moot at this point.

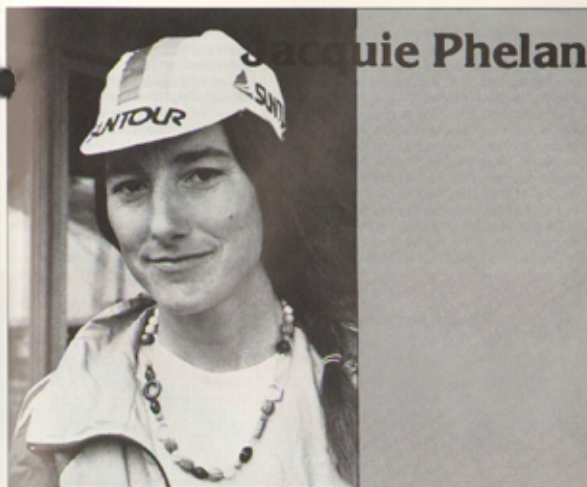
Off-road bike racing has become one more casualty. Races may once again end up being informal gatherings of enthusiasts conducting their own ad hoc events. If the trend that just tossed NORBA continues, as Phil Voxland, President of the USCF put it, "In 5 or 10 years we'll all be left sitting around saying, Gee, everything costs a lot, and we're not having fun anymore."

(editor's note: as of press time, a group of manufacturers have banded together to raise part of the money for the insurance premium, about \$25,000 of the required \$40,000. Individual race insurance costs will go up from last year's \$98 to something like \$200 per day. Membership dues are evidently going to remain the same. If they do increase, it will be minimal. Race entry fees will probably also increase. But none of this is yet cast in stone. The entire insurance hassle is becoming so volatile that it's hard to tell from one day to the next what's going to happen.)

Chequamegon Fat Tire Festival



Winner of festival - Mark Fries



## Still Peeling Away Layers by Sandy Fails

She's often called Alice B. Toelips, or, since finishing the Rockhopper mountain bike race topless three years ago, Alice B. Showits. She's been called much worse.

Jacquie Phelan loves word of play, bicycles, winning, and, most of all, attention. In the last two categories, she boasts an impressive record: She's never lost in four years of mountain bike racing and she's managed to evoke a strong reaction in almost everyone she's encountered.

On the race course, Jacquie is tough, strong, and relentless.

"Gnarly and dirty are her style," said a former fellow team member.

Jacquie's dominance of women's mountain bike racing has never been closely contested. She also consistently beats many of the male riders.

She can be equally formidable off the bike. With her verbal quickness and effective persona, Jacquie "takes over a room" like hot garlic, "one person said. An avid devourer of books and a disciple of the pun, she keeps her companions laughing or wincing, depending on the target and audacity of her wit.

In many respects, 30-year-old Jacquie is a classic representative of the mountain biking sport: tough, outdoors oriented, fun-loving and colorful, and dedicated to splitting in the face of expectations.

She recalls with glee the shock waves

that rippled through the spectators at the Rockhopper finish line as she rode across bare-breasted. The cameras, poised to capture her winning finish, dropped to expose open-mouthed photographers. The murmurs ran through the crowd: "(Gasp) It's a girl. No, it's a boy. No-uh-it's definitely a girl."

While she has not repeated the topless outfit, Jacquie is likely to show up for races garlanded with plastic fruit, streamers, or other "bizarro" costumes. Her so-called "unbuttoned behavior," outrageous attire, and uncensored tongue have kept her on the fringe of what she calls "the bike clique." While she handily collects trophies and press coverage, sponsors have been reluctant to adopt such an outspoken and controversial rider despite her flawless winning record.

"She'll do anything to get a rise out of people," said Steve Potts, bicycle builder and partner in Wilderness Trail Bikes (WTB), the company that sponsored Jacquie for two years before asking her to leave the team.

Charlie Cunningham, builder of Cunningham bikes, WTB partner, and Jacquie's boyfriend, said, "Jacquie does deliberately provoke people, but only if they don't approve or she sees the potential for disapproval." He called Jacquie's provocation "test prods," and noted she has loyal friends as well as people who "just can't handle her."

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Charlie calls his girlfriend "Jackiepie" - prickly on the outside but soft-hearted underneath. Jackie describes herself as "an aerobic loudmouth with a mushy interior. Like an Israeli - they look strident, but inside - mushyville." She admits that for much of her life she's used her bristly manner to hide her vulnerability. "A comment would tell me," she said.

While Jackie's humor can have a cynical sting, she also has a whimsical Alice in Wonderland side. An ardent correspondent and "mailbox junkie", she takes childlike delight in Valentine's Day and the carefully hoarded homemade Valentines generated at the annual card-making party she hostesses. Open and curious about other people, Jackie spontaneously strikes up conversations and friendships at check-out counters, listens intently, and remembers names and faces. "It's like a little gift to people," she said. More than once, she's left for distant locations to race, trusting that on arrival, she'll make a friend and find a hospitable home to stay in. She's never failed.

Jackie openly expresses her feelings for Charlie (whom she plans to marry in a few years under a "race for the cake" wedding reception) and her admiration for Miss Manners and the Guide to Excruciatingly Correct Behavior. I imagine Miss Manners wouldn't return Jackie's affection upon noting the young woman's propensity toward noisily spitting in public and, on arrival at a restaurant, helping herself to the leftovers on departing patrons' plates.

Jackie's wit and ostentation camouflage her constant self-searching. She admits that, like many athletes, much of her competitive drive comes from insecurity, and a voice that constantly calls for more, better, faster.

"God help you if you ever get delusions of adequacy," she said.

While in absolute defense of her "essence", Jackie these days is asking herself, "Am I sabotaging myself, or just being myself? I haven't got to the core yet. I'm still peeling away layers."

Last year, she cut off her trademark Pippi Longstocking braids to make herself more "palatable." "Nobody is going to take braids seriously," she said.

"I want to fit in a way, but to hang on to my ego. People have to be able to take a little garlic and vinegar...I won't give up my essence. But there are some changes going on."

Charlie notices the changes: "Jackie's working on accommodating other people's personalities. She's trying to see how other people see things."

The athlete compares herself to an alcoholic drink. "Most people can only take a nip at a time. Charlie can take a big dose and he doesn't come away reeling."

In contrast to Jackie's volatility, Charlie, a follower of the Sufi philosophy, maintains a consistently calm demeanor.

"Everything rolls off him like water off a duck's back," Jackie said. (A friend affectionately noted that Jackie's only resemblance to a duck is the number of times people have wanted to shoot her.)

Jackie and Charlie live in Marin County at the end of a road that turns to a wooded, hilly trail. Deer wander into their front yard. The two sleep in a tree house in the jungle backyard, or beneath a large redwood in the nearby forest where they keep a couple of sleeping bags stashed.

They're equally compatible on the domestic front, in a bungalow Jackie appropriately dubbed Off-Hand Manor.

They both espouse the "lived-in" approach to housekeeping and believe laundry is a necessary task-about four times a year. The house is filled with well-used furniture liberally upholstered with books, newspaper clippings, cartoons, letters, and photos. On the window sill sit a couple of old metal lunch boxes Jackie painted with whimsical images in bright colors.

Jackie considers herself "Terribly domestic". After an extended daily ride each day, she spends a few hours putting around the house, cooking or fiddling with her word processor.

Jackie's a regular contributor to

Cyclist magazine and hopes to build a career as a writer, although she considers it "a tortuous way to make a living." She jokingly figures, "It's penance for having lived badly that I'll have to do homework the rest of my life."

Her goal: "to get good enough that I don't have to drink or feel miserable to write."

During a recent bout with the flu, Jackie seemed completely content curled up on the couch, surrounded by notebooks, newspapers, stacks of books, an old airline blanket, and Demo the rat, who had Paul Newmaned his way out of

his cage to join her. Demo seemed just as content; Jackie's tangled nest looked like a human version of his own sawdust and rags bed.

Jackie used the "down time" to feed her voracious and eclectic appetite for books, from an investigative journalist's accounts to portraits of Sylvia Beach and Jackie's heroine, the versatile and gutsy athlete, Babe Didrikson. More than once, she's surprised those eager to label her a jock with her vocabulary, range of knowledge, and facility with languages and accents.

In addition to writing, reading and

She started racing collegiately at age 25 with the Stanford team. Despite pointers from rider Liz Newberry, her enthusiasm outpaced her body. She over trained one season and "fried up the grease" in her knees. Around that time, she met mountain bike racer and entrepreneur Gary Fisher. That was the beginning of her conversion to mountain bikes. She met Charlie on a moonlight ride with friends. They both were mutually star struck and Jackie's late time fanaticism was cemented.

During the off season, Jackie takes long, leisurely rides through the labyrinth of hilly trails abounding in Marin County. Then, as competition time nears, she switches to shorter, more strenuous rides with some of mountain bike racing's top riders. Her admittedly sexist-sounding advice for women who want to become competitive riders: find a boyfriend who's a strong rider to push you.

While she certainly does not duck notoriety, Jackie disapproves of the trend of mountain bicycling toward competitiveness and the "paid gladiator accolade bullshit". Her form of protest is to recruit more beginners, especially women, to the sport.

"Bikes are such a liberating thing," she commented. She connects women's suffrage and the invention of bicycles. According to Jackie, women in the late 1880's gained a new freedom and range of movement because of bicycles. To accommodate the new activity, Amelia Bloomer fashioned less restrictive "bloomer" underwear.

"The changes were scary to men," Jackie said, "and the more powerful the reaction, the stronger the defense. The women's movement started coagulating. Actually, a lot of people have found themselves on bicycles. You can get downright religious about it."

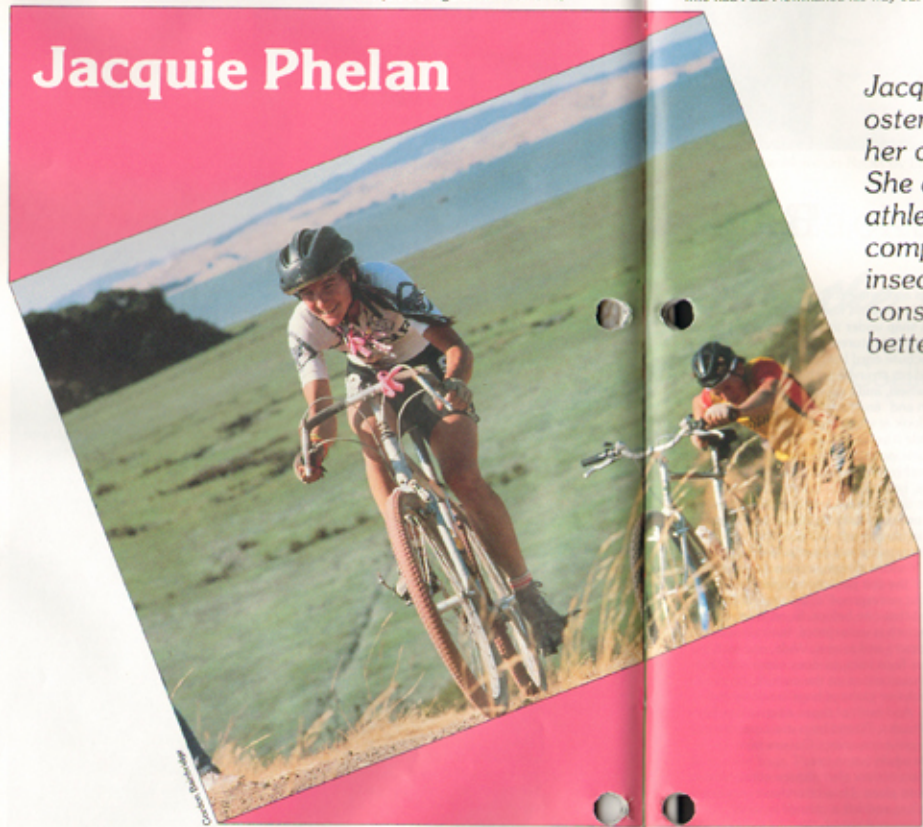
Bikes are the only area where Jackie has any religious tendencies, but, true to her Irish lineage, she is selectively superstitious. She used to believe if she found a penny before a race, she would win. A friend started going out early and throwing handfuls of pennies around the race starting area.

Now that both her superstitions and her character are evolving, her friends are wondering how the changes will affect her "unbuttoned behavior" and her racing.

"What she does in her life may be part of the reason she's been so hard to beat," said one.

There's an irrepressible quality to Jackie that guarantees whatever she's doing, it'll be done with a unique flair. She's always been a character and there's no doubt that will never change though the stage setting on which she performs may. If her nickname is forgotten, it'll only be because she's been bequeathed a new, more descriptive, and probably equally ribald one.

*Jackie's wit and ostentatiousness camouflage her constant self-searching. She admits that, like many athletes, much of her competitive drive comes from insecurity, and a voice that constantly calls for more, better, faster.*



training, she's done some public speaking and spends time trying to glean more sponsorship for herself. In pursuit of that, she taped a Quaker Oats' logo to her cap in several mountain bike races in the hope the company would see newspapers photos of her racing with their logo prominently displayed. So far, they've failed to sign her up.

As the oldest of six kids, Jackie started trying for attention early in life. She recalls "being shoved into the round hole of academia when I was a square peg of a tomboy". With impressive high school scholastic credentials, her parents attempted to steer her towards medical school. But after graduation, she stepped off the straight path, working for barter, taking classes, and "totally enjoying myself" for five years in San Francisco.

A road bike tour from San Francisco to Los Angeles put her in such good shape, she decided to enter a regional road race. She won. The taste of victory was sweet but it was also "delicious fun to not be wearing the right clothes-no cleats and knee socks".



As a long-time reader of bike magazines, I've always questioned the validity of product reviews. I wanted information on the equipment, but worried about "business relationships" between reviewer and producer. Because I plan to include occasional reviews in this column, and because I want readers to understand how these come about, I invite you to suffer through the following explanation.

Allow me to address the issue squarely: The product review you are about to read was not purchased by the producers of those products. Yes, I did receive the racks and packs free of charge. Yes, once used they cannot be sold as new (i.e., I may keep them for further rides and testing). And yes, I like the heads of both companies in question, and wish them luck in their endeavors.

So that means the following review is biased, right?

No. It doesn't. And for several very good reasons.

1. I've received free test panniers and luggage racks from almost all companies making them. I need another set like I need a frozen link. How many can one rider use?

2. As for keeping those things... Years ago, after my first book, when I began receiving requests to do field tests, I promptly mailed back the products after each ride. From two companies I received phone calls telling me they couldn't sell used equipment, they had plenty of seconds for their own staff, so why don't I keep them and save myself the postage. I'm not about to sell what I receive free, so that means I rent a storage locker and keep them for group rides.

3. Sure I like the fellows heading up both companies involved in this month's column. So would you, if you met them. But I'm also on a first-name basis with the owners or managers of many companies. I recognize that almost without exception they have the biker's interest at heart, and wish them good fortune in this highly competitive market.

4. I'm not "endorsing" a product when I tell you how it worked, or decrying one that didn't. Instead, I'm simply relating how I treated it and what happened. As few of us beat up our equipment in exactly identical ways, you'll need to draw your own conclusions about how it will work for you.

5. Finally, and most important, I'm not

Blackburn rack



The Monsoon Packs by Lone Peak Designs

## Racks and Packs Off the Road

by Dennis Coello

about to knowingly write anything which will lead you astray. As I mentioned last month, fail to plan properly in back roads mountain biking (and this includes choosing the wrong equipment) and you can get yourself in trouble. I don't want your difficulties on my conscience, or your wrath in a letter.

With that said, I can tell you about two products I recently mistreated on tour in Capitol Reef National Park (and adjacent canyons) - a rough, gorgeous region of southern Utah. Both manufacturers had heard I was taking off on a two-hundred mile January ride, and called to offer up their wares to the kinds of winter temperatures, over loading, and general road abuse which result from my tests. The calls came late in my preparations, and required the bothersome last-minute changes of rack replacement and pannier repacking. But this was acceptable, as the products were unique: Bruce Gordon's newest chrome-moly bike racks, and Lone Peak's "Monsoon Series" bags. The racks promised twice the tensile strength of their aluminum competitors; the bags were billed as waterproof.

Why unique? You know the answer if you were touring in the Sixties, and recall what our options were back then. Clunky, one-size-fits-all carriers, which swayed in the breeze when under a load. Leather-and-canvas panniers, laborious to attach and remove, more akin to cavalry saddlebags than their high-tech descendants of today.

Many superior racks and packs have come our way since then, but just five

years ago, while following the Santa Fe Trail in winter, I had a stiff, well-known rack snap under the strain of weight and cold temperatures. Fortunately, the parachute cord I always carry on tour was sufficient strength to hold the rack up off my wheel, and I was able to limp into a town and find a welder. And with packs, just look at what has been produced. For a while it seemed America's primary cottage industry, the artisan-artisan to assembly line shoddy goods and lack of pride. Labors of love, these fine creations were like tailored suits compared to those of a previous decade. (No, I'm not going soft in my old age. Look at the craftsmanship in a Needle Works pannier, or a Madden design, or almost any of the top-of-the-line pack companies today.)

But waterproof? Come on. We've all heard that one before. Sure, treated packcloth is waterproof, but rain seeps in at zippers and seams. Wide, one-inch zipper flaps help, as does seam-seal. But only rain covers on the outside, or plastic ziplocks or garbage bags inside do the trick. And both of those alternatives have drawbacks. Plastic bags are cumbersome and time consuming. Covers take up space when not in use.

Rain covers also require some time to slip into place. How often have you been pedaling and felt a change in wind direction and speed, then a freshness in the air? Classic signs of rain long before that first big drop hits you in the eye. It's decision time. If you ride on, you might outrun the rain and reach your destination without having to suit up. Or, if it's a

localized squall it might miss you completely. Or, more likely (if you haven't suited up), a sudden thunderstorm will crack and blow about you, scaring you witless with lightning, soaking you to the skin, and drenching all your possessions while you're scrambling for protection. The point is - when do you stop to don poncho and rain covers?

I get a lot of practice at this each year, and still I'm not quick enough to pull on gaiters, poncho, shoe covers, and all four rain covers in time, if I've waited to begin until I'm sure the rain is coming. We all recall the perfect summer shower - enough to refresh, but not to soak. But how often are we positive the rain won't worsen?

I've learned to store all four rain covers in a single pannier, and to label them with an indelible marker if they are designed to fit specific bags. Poncho and chaps ride in the below-the-saddle bag, which is usually not large enough to handle shoe covers as well. ("Bootsies" is the industry term, but I always feel like I should be on my tiptoes when I say it. Granted, the word is shorter, but what would you think if I told you where I pack my "hankies?") My shoe covers are stored with the rain covers.

Okay. So much for normalcy -

concerns about when to begin donning rain gear, and worries about rack strength when far from home. I was being offered deliverance.

### Racks

The first thing I noticed when taking them out of the box was that they looked like pieces of sculpture. The baked-on black epoxy finish caused the thick 4130 chrome-moly tubing to gleam, even at the smooth machine mitered, hand-brazed joints. (This larger tube size requires that most bag hooks be opened slightly. Two wrenches will do the trick.) The hardware was typical Gordon: thick rear rack adjustable bands (reaching to seatstay attachment points - available in three lengths for a perfect fit); large, coated no-slip clamps; allen bolts whose heads do not round off inside when cinched securely. (This last point has been one of my greatest peeves. Rack mounting bolts will loosen up if not secured with lock

washers or Loc-Tight. But how is one to retighten them, change racks, or install fenders if the bolt metal is so soft that it rounds under pressure? I've been forced to drill out the heads of old bolts just to remove a rack.)

The Gordons went on beautifully. My photos will show you more than I can say about the four-point mounting system in this space, but I'll mention a couple things. First, separate fender eyelets mean the rack base and support bolt are perfectly flush with the frame - not backed out several turns to allow space for fender stays (and the potential for swaying which then results). Second, notice the wide wedge shape of the front rack. Gordon has another rack without this wide wedge, if you don't need the space to clear cantilevers or want the space - as I do - for extra support for all the gear I store on top. The wedge places bag weight back along the steering axis, making it feel like a low-rider. (For two years I've argued against low mount racks on mountain bikes, complaining that in my tests I'm stopped in narrow places, lacking the

continued on page 27



Pouring water into packs to test for leaks.



# Reviews

The Mountain Bike Book  
Rob Van der Plas

If you've never ridden a mountain bike but are interested and want to know more about the machines and how to ride them, this book can do much to answer your questions. Rob's a knowledgeable and experienced rider of both road and mountain bikes. His book is filled with technical information that ought to keep all but the most tech-headed interested.

But beyond that, the book's also loaded with information on how to ride. Things like avoiding rocks on trails or hopping over obstacles. Photographs are generously included throughout the book to back up the information.

While there's still no replacement for the advice you can get from bike shop mechanics, books such as the Mountain Bike Book and the previously reviewed Mountain Bike Manual by Dennis Coello can provide you with tremendous background information. Besides, a book doesn't get irritated after awhile with seemingly stupid questions. Read the book and then you can go ask questions coming from a degree of knowing, not total ignorance.

The Mountain Bike Book  
Rob Van der Plas  
Bicycle Books-San Francisco  
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Purple Sky Productions, Fat Tire Bike Week '85

If you've ever wanted to get an idea in living color and action what this remarkable gathering of mountain bikers in the heart of Colorado's Rockies is all about, now's your chance, via a VCR video.

The movie effectively captures much of the unique spirit of this annual event, the races, the trials, the riding, the tour itself, and most importantly, some of the people. Part of the movie has superb shots of bikers shooting down a single track. This is the finest visualization of mountain biking I've seen to date. In fact, I wish there was even more of that in the film and less on the trials riding, not that I don't like trials. It's just that I'm a confirmed single tracker and almost everyone who comes to Crested Butte for Fat Tire Bike Week is too. The single tracking and the socializing are the heart of the week and the movie doesn't give them as much play as I'd like to see. But that's just a personal viewpoint.

The only other complaint I've heard expressed is the voice of the narrator. Really, he's awfully biblical for such a get down and have fun event. But don't let that dissuade you from picking up this video. It's the best one yet on mountain biking and may do much to introduce your friends to the sport while getting you all jacked up for more of it this summer.

Purple Sky Productions  
2800 Buchanan Ave  
Ogden, UT  
84403  
801/392-2911

# Mountain Bike Profile



## STEVE POTTS AND MARK SLATE

BY SANDY FAILS

Rule #1: Don't draw hasty conclusions about mountain bikers.

Rule #2: Don't go on a tandem mountain bike ride with Steve Potts or Mark Slate if speed is not your bag.

After a few sedentary months in my snow-choked Colorado home, the idea of taking my rusty body into the heart of Marin County's legendary mountain biking scene where locals hammered up lung searing climbs then raced back down in clouds of spraying gravel was intimidating at best. Then I met Steve Potts and Mark Slate, mountain bike builders, component designers, and partners with Charlie Cunningham in Wilderness Trail Bikes. I relaxed. Surely I could ride with these guys.

Mark was easy-going, down-to-earth, low-key. And his description of Steve was perfect: "a big burly teddy bear," the kind of guy who adds a "y" to everybody's name (right Marky?) and is a natural to play Santa Claus. Where other Marin County bike builders talked about competition on the race course and in the market place, Steve and Mark emphasized workmanship, pride, and the philosophical view of mountain biking.

Mellow and un-macho, they seemed good folks to introduce a visiting journalist to the wonders of tandem bikes and the bountiful trails of Mill Valley.

How was I to know they were both ex-motorcycle racers? How was I to know what happens when you put them on wheels and set them loose on a trail laced mountainside?

"We're pretty relaxed on two wheels," Steve had said the day before our planned ride.

As soon as shoes hit toeclips, they proved it. Mark, on a single bike, is off like a BMX-crazed school kid, dodging invisible objects and playing rodeo. When the uphill trail turns to a single track traversing a steep hillside, Steve guides the tandem bike (and me) nonchalantly through tight trees, over rocks, and around corners while casually tossing jokes and an occasional "relax" back over his shoulder. By the time we reach the top of the first steep, I'm beginning to follow his advice, resigned to the conspicuous lack of steering and braking capacity in the "stoiker" seat of a tandem.

On a tandem, if one person pedals, the other has to also. There's no division



## Mountain Bike Profile



Steve Potts

of the pedaling labor. But Steve is an absolute bull. We fly up hills I know I couldn't have ridden up alone. My legs are spinning and I think I'm pushing the pedals through their arcs yet I slacken my effort, there's no slowing of the bike. It's as if I'm caught up in some force that carries me on whether I participate or not. I find myself completely caught up in the action, straining for more power, laughing at the speed with which we fly across the mountain's slopes.

I look up over Steve's shoulder just in time to see Mark clive off the side of the mountain. Before I can register what happened, Steve turns and follows—downhill, over a steep (read very steep) fire road. For a moment I wonder if Steve has any brakes. If so, he seems disinclined to use them. Swoosh, we angle around the fire road's dirt curves—clean, solid, and very, very fast. Bump, bump, over the ditches. Who needs brakes?

That downhill tandem ride was the

closest substitute for a roller coaster ride I've ever experienced. My job: hold on, tune in, go with the flow. Steve's job: keep the bike on track and death at bay. Knowing intimately every weld of his custom bike and every corner of the steep trails, he keeps the bike flying without a hint of wobble, slide, or balk. I'd never gone that fast on a mountain bike before—probably never will again. Unless I allow myself to once again hop on a tandem behind Steve Potts.

At the bottom of the trail, after making a tricky exit around a corner, over a hump and across a footbridge, we pause on the edge of civilization. While Mark shakes his head, Steve recalls a recent exit of his at this same point that had a more spectacular ending. Having negotiated the corner then the hump at high speed, he hit a rock with his front wheel and flew head first into the rocky stream below.

"Charlie (Cunningham) thought I was dead," Steve says, chuckling at the

memory.

Later at Steve's house, he points to a photo of motorcycle racers (he's in the front of the pack) leaning around a turn at an angle that seems to defy the laws of physics.

"I've fallen off at over 100 miles per hour more times than I can remember," he says.

Now he tells me. Mark and Steve became friends on a 1980 trip to Crested Butte for the Pearl Pass Tour. They shared a background in motorcycles and a fascination with upgrading mountain bikes through innovative mechanical adaptations and fine workmanship.

After Steve started making the Steve Potts bicycle, considered the finest mountain bike on the market today, Mark began working with him. Because of their high standards and the relative newness of the mountain bike industry, they found themselves frequently designing their own components or adapting existing ones to improve the quality of the bicycles. Gradually, the components design evolved into a separate business with Charlie Cunningham, Wilderness Trail Bikes.

"We weren't interested in selling them (components)," Mark said. "We just felt a real need; nothing that existed was good enough for what we wanted to use on our bikes."

Today, Mark, Steve and Charlie are focusing ever more time on components. The three work in their separate garage/workshops, each with his special interests and strengths.

Charlie, with schooling in aeronautical engineering and a mad inventor's love of "tinkering with things in his mind," often comes up with very original ideas; Mark helps to modify the ideas to make them more practical and later does the marketing and paper work; Steve "brings the idea down to earth and makes it happen."

"Charlie's pretty eccentric; Steve's pretty conservative," said Mark, who often ends up the mediator.

The common element is an almost reverent attitude toward mountain bikes and the commitment to "stretching the limits of the bike," according to Steve. The philosophy: If there's a better mechanical way to do it, don't settle for status quo. And there always seems to be a better way to do it.

WTB has modified or created a variety of components, most of which have been incorporated onto the partners' own custom-built bicycles. Unfortunately for the public at large, marketing is not the partners' strong point. Components that have been designed or modified by Charlie, Steve, and Mark are: off-road drop bars (they're being manufactured by Specialized for WTB) that are canted out for greater control and comfort; stems in various configurations for flat bars and drop bars; shifters modified and grafted onto brake levers on flat bars or mounted

next to the brake levers on drops that allow simultaneous braking and shifting; racing and touring forks; roller cam brakes; hubs with precision bearings that're greaseable without disassembly; toe clips; fixed angle seat posts that allow more forward movement of the saddle; and rubber chain stay protectors.

Because of their fascination with mechanical workings, they've spent much less time on marketing their innovations: why spend time thinking about selling when you can spend time thinking about bearings? Running a business with three independent individuals has seldom been easy.

"A while ago, it was threatening to blow apart," Mark said. "When you put your whole life into it, you've got to feel good about it. You've got to get strokes out of it."

Mark and Steve have been attempting to make a less expensive, higher volume bike, the Swift, but continually find their own standards getting in the way. Every time they decide to make something just a bit better, the price goes up. They still build the Swift but at about \$1,300, it isn't exactly a production bike. But at that price, high as it may seem to the average buyer, it's an incredible bike.

"When a bike goes out that doesn't have the absolute best we can put on it, we don't feel right," Mark said. "We love it when someone comes in and tells us to go for the max."

Fans of the Steve Potts bicycle consider it the best mountain bike ever made. The price tag (\$2,300) seems modest to those who have seen the painstaking care that goes into the design and creation of components and frame.

"I really pour my heart out building really beautiful bikes," Steve said.

Along with a precision detailed bicycle, purchasers of a Potts bicycle get a virtual lifetime guarantee. Steve and Mark keep the doors open for bike owners with questions to ask or adjustments to be made.

"It's like being a doctor -- on call 24 hours a day," Steve said.

WTB race team member Joe Peterson recalled an awesome crash he took, breaching his bike a week or so before a race. Within six days, Steve and Mark had built him a new bike.

Mark, now in his early 30's, started riding motorcycles as a youngster in Marin. When he was 18, a friend gave him a cheap 10-speed road bike. Gradually, the serenity offered by the bicycle drew him away from the louder, motorized two-wheelers. His urge to explore soon led him into the hills, barging the bike around the dirt trails and completely trashing it. So he joined other "balloons" adapting old junkies for off-road adventures. At that time, a 45-pounder was state of the art and "people were just getting into gears," Mark said. Working as a parts man and service writer at a motorcycle shop, Mark used his mechanical know-how to piece



Mark Sate

together bikes "with whatever technology was coming up."

His work assembling and finishing bikes and helping design and market components turned into a full time job over three years ago and now occupies most of his attention. Between time conceptualizing, assembling, writing and marketing, he seems to no longer have enough time to ride the bicycles he's centered his life around.

Steve, the youngest of five kids in his family, also started riding motorcycles at a young age. By 15, he was an amateur racer; by 17, a professional; by 24, one of the top racers in his category.

Gradually he turned his two-wheel obsession toward healthier mountain bicycling, much to the relief of his father who had never approved of his motorcycle racing. On one particularly significant day, Steve called his dad and the two loaded up a truck full of trophies and took them to the local dump.

"Motorcycles played an important valuable role in my life; the trophies didn't," Steve explained.

In 1980, Steve headed off to New Zealand with Joe Breeze for a mountain biking tour. He returned convinced he wanted to build bikes. He sold his \$50,000/year decorative sheet metal business in order to work more hours for a fraction of his previous income. Since that decision, his "enthusiasm hasn't waned one bit," according to Steve. The bikes and components are constantly getting better and the workmanship continues to give him tremendous satisfaction.

"The most fun thing to watch blossom is yourself, your attitude toward work and wanting to do a good job. I can't wait to get to work and it's hard to get me away. I

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# Biking the Real West

by Garth Flint

This is a story of mountain biking the REAL West. I do not refer to the POPULAR West that most biking articles write about -- the Colorado Rockies; the Pacific Coast mountains and other scenic western locals -- but I mean the West of cowboys, cows, sagebrush and little to no scenic appeal. If you have ever been to eastern or central Montana you would know the kind of West I'm talking about.

It takes a certain kind of person to bike this country. That person lives so far away from anywhere else to ride that there is no other choice! If they lived anywhere else they sure as hell wouldn't bike here! You see, there are certain drawbacks in biking the real West. One is the view: in the popular West, there are always panoramic views from mountain sides, stream side resting places with waterfalls, wildlife and trees -- lots of beautiful, shade-producing, interesting trees.

In the real West there are some differences. There are panoramic views in the Missouri Breaks -- not quite as spectacular as those in the mountains, but beautiful nonetheless. But man cannot live on panoramas alone. There are streams in the real West and, if you don't mind the cow pies upstream, you can drink from them; just pretend it is thick chocolate milk. I carry lots of water on the bike. Whatever you do don't bring your bike to the edge of the stream! You see, the real West is made of dirt; this dirt has an interesting property: when wet, it turns into what is locally referred to as "gumbo". Gumbo is not nice stuff. Gumbo is the reason that mountain biking in the real West has two distinct seasons: midsummer, when the gumbo has turned into brick; and midwinter, when again the gumbo is in brick form.

Now consider the wildlife. If you like cows and consider a cow a form of wildlife, you will love the real West; but if you are normal you will ignore the cows. You must have absolutely no fear of snakes to bike the real West. Lots of snakes out here, the

noisy kind that can bite. Nothing to really worry about; if you encounter one, just lift the feet and hope you have enough momentum to coast on by. There are other forms of wildlife present. Ever have a jackrabbit or a grouse jump out of the grass two inches from your front tire? Stimulating. Occasionally you see deer or antelope, but at 300 yards they are not exactly impressive.

When riding the popular West, you encounter certain natural hazards: rocks, trees, logs, hikers, etc. The real West hazards are different. Yes, there are rocks. Trees? No. Logs? Need trees. Hikers? People don't hike the real West on purpose. In the real West there are cacti. Cactus plus cyclist equals hiker. Never, never crash to the ground -- cactus. I know there aren't many choices to crash

*It takes a special kind of person to bike this country. That person lives so far away from anywhere else to ride that there is no other choice!*

to, but don't crash on the ground! Cow pies. The old ones aren't bad -- kind of like a soft rock. The fresh ones can be bothersome -- cow pie stripe up the back can smell bad on a hot day, dried pie on the bike does not look cool and is a bitch to get off. The major and most prevalent hazard is the mighty sage bush. Sage and bicycles have a certain mysterious natural attraction. Ride by one and it will, without fail, do one or several of the following:

catch and remove the derailleur; tangle a pedal, which can result in a get off; reach out and touch the front wheel, resulting in a sudden 90 degree turn and another get off, or conceal one of the aforementioned forms of wildlife. Trees are nice; they produce shade, are a handy bike stand and look good. The only thing shading itself under the sage is wildlife and some of them aren't much on company. This lack of shade can make biking the real West a very hot experience. If a bush large enough to lean a bike on can be found, it will take a minimum of three minutes to extract the bike after it falls into the bush. Sage can smell fantastic in the morning, but they are never much for looks and do not add to the already lacking scenic splendor of the prairie.

A final realism of biking the real west is the trails themselves. The popular West has beautiful trails: the trails are wide, reasonably smooth, and wind through the forests and hills. In the real West the trails are made by cows. Cows make a trail about one foot wide and six inches deep. When it is wet, the cows leave large, deep tracks in the trail. When things dry out, those tracks are still there. It can make for a very rough ride. Speed is impossible when riding a cow trail; they are never straight and the rough ride can cause much pain. Speed is also unadvised if cow trails are known to be near: drop a front wheel into one and again, much pain. The trails tend to go between the sage brush and not around, thereby giving said bush a chance to maim and mangle. Once in a trail, it is often interesting trying to get out, especially when going downhill and the trail suddenly does a 90 degrees left turn.

The real West has a few other inconveniences I haven't mentioned: wheel sized badger holes, bottomless arroyos that must be crossed and that weren't there yesterday, and barbed wire fences at the bottom of long, high speed downhill. I ride the real West because I have no choice, it is where I live -- again, not by choice. When I do get a chance to ride the popular West, I always end up being told by someone that next time I'm in town to look them up, and they will show me some great riding. In return I promise to never, ever invite them to my country to go for a ride.

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ground clearance necessary to ride between rocks and logs. I also missed the high rack platform for storage.)

And performance on the road? Again, excellent. Stiff, strong, not a hint of sway. A chrome moly extension of your bike's frame, you can mount these racks and forget about them. What a pleasure.

Bags

Tom Kullen, designer and owner of Lone Peak Designs, had not yet completed the bags I tested. Everything was ready except for the top-of-the-bag locking device, made to insure they would not bounce off. However, having never had any problems with his quick-mounting, usual hook-and-tension cord system, and not wanting to postpone my trip a day, I took them as they were. As I expected, even without the extra lock device, they all remained in place.

Look closely at the photos and you'll see why these bags are -- as advertised -- the only totally waterproof panniers. The

material reminds me of that used by rafters. The bright color is perfect for visibility in the rain. No water will leak into zippers and seams, because there aren't any. A single mesh pocket can be attached with compression straps, but the bag is simply a single, non-compartmentalized sack.

Entry into the bag is from the top. The top flap is then folded, rolled downward and snapped quickly in place by two huge side-release Fastex buckles. Easy. One does have the less convenient packing inherent in all top-loading bags, and the problem of access when one's tent and sleeping bag extend over the bag top. But then how convenient is access to the pannier when it's enclosed in a rain cover? A handle can be formed by snapping together the two Fastex buckles not at the sides, but over the top.

My concern was that this heavy rubber-type material would crack or harden in the cold. Tom read me the specs on temperature range -- far greater than any human would endure. Early mornings on my ride were in the low teens, and I encountered no problems. I

also was concerned at first by the weight of these bags, until I compared them with other bags and covers combined. And once on tour I so enjoyed the freedom of simply tossing books and other gear into the panniers (without the careful wrapping in plastic to insure their safety from water), that I gladly bore the few extra ounces.

For those who live in Seattle, or spend a lot of time in creeks, or commute in wet springtime and want your things to arrive as dry as they began, I suggest a personal inspection. You'll miss the speed of zipper entry. But you won't miss the rain.

\*For prices and further information, see your local bike shop or write to:

Bruce Gordon Cycles  
1070 West Second Ave.  
Eugene, OR  
97402 (503) 343-9313

Lone Peak Designs Ltd.  
3474 South 2300 East Salt Lake City, UT  
84109  
(801) 272-5217

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couldn't see. I never did "clean" it although Chris and Martha did. It's amazing what mountain bikes can do for your maturity.

MBM: Lolly, we never really found out how you got into mountain bikes.

LH: When I started at Freewheel, I didn't really ride. I bought a better sport bike but still didn't ride much. Then two women came to the shop who had been around the world on their Ritchey Annapurnas. I rode their bikes and from that day was sold on mountain biking. Since I couldn't afford a Ritchey and we were a Trek dealer, I waited for them to come out with the 850. Eventually I ended up selling my

road bikes that were just gathering dust. You could say I'm a fanatic. Even my two Pit Bulls love it. They see me packing tools and putting on lycra and they start jumping and squealing. They're great dogs. They can do 10 miles no problem, and 20 miles if we pace them. You can't take your dogs road riding, now can you?

MBM: Any recommendations for the readers?

LH: Women especially, go for it! Try finding some women to ride with if you're turned-off by male friends being too gonzo. The field is wide open, and we need more women out there. Build-up your endurance and off-road skills, and brush up on basic mechanical skills.

Always carry a pump and tools, especially a chain tool.

MK: I'm hoping that more women will get over their conception that off-road racing is too dangerous. I understand that people have given this reason for choosing USCF road racing over off-road racing. From what USCF racers have told me after mountain bike races, I understand that it is more exhausting but not more dangerous. It's fun and with very little riding in packs. The reason I stress women's racing is that I'm tired of race promoters saying that they will up women's prizes when more women enter. And for guys: do all the same basic stuff, and don't get too intimidated by the girls when they start flying by.

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love doing it," he said.

Recognizing the need to balance his life, Steve plays the drums frequently, in a studio and in the homes of musician friends; dives and windsurfs; and spends time with his family, whose roots stretch back four generations in the Marin/San Francisco area.

Much of the job satisfaction for both Mark and Steve derives from their view of mountain bikes as a key to a healthier lifestyle -- both physically and emotionally.

"Some pancakes and a couple of eggs will get you a lot farther than a gallon of gas," Steve said. "Overall, we'd have better attitudes if everybody rode a bike to

work."

What lies in the future for these two characters? More bikes, especially more tandems, more riding, more fun. But right now they're concentrating on developing their business, to take it out of being almost a total time-consuming hobby to a viable income producing lifestyle. Currently they've got a small backlog of unsold Swifts and Steve Potts and about three hundred and seventy-two projects so they're trying to cut back their sometimes excessive penchant for dreaming up new components. They could probably make a fortune selling bikes if they weren't so insistent on making everything as perfect as they possibly can. But then they wouldn't be who they are: a couple of guys who are "pretty relaxed on two wheels."

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Fisher experimental bike



Maruishi MT18 around \$575



Dawes Ranger around \$620





ego by continuously reinventing the wheel, the new and improved model. Whatever the reason, you can be assured that there's always going to be somebody working on a new design. Especially with mountain bikes.

Gary Fisher is often considered one of the more conservative frame builders. Satisfied that the original mountain bike geometry, based on the Schwinn Excelsior, provided the best performance for all around dirt riding, Gary stuck with

*Mountain bikes continue to evolve every year perhaps as a need to express our ego by continuously reinventing the wheel.*

it despite relatively radical designs of other builders. Any changes he made were subtle, evolutionary rather than revolutionary.

He shortened the rear triangle a bit for better traction and steepened the seat tube for a more efficient rider position but other than that, his bikes differed little from the early models. The design must have worked for thousands of Fisher MountainBikes were sold. People toured on them, raced on them, went to the market on them, and searched high and low around the world for adventures on them. The bikes worked and worked well.

Fisher MountainBikes are no longer the same. Gary has steepened the head tube angle from the original laid back 68 degrees to 69.5 degrees. That may not sound like much but it is. That degree and a half makes for a substantially different feeling bike. How was that arrived at? By building bikes with different head angles and testing them. The subject of this report is one of those test bikes. It is not a production model, just an experimental bike so I'm not going to go into the bike's overall geometry. That's really irrelevant. The bike was built to test out ideas that could then be incorporated into the

production models.

The most notable difference on the bike were horizontal dropouts on the forks. They allowed over an inch of movement of the front wheel fore and aft. The head angle was a steeper than usual 71 degrees. By moving the wheel to different positions, a rider could compare the bike's handling with varying amounts of rake. All the way forward tended to create a slower reacting but stabler steering response. All the way back was the reverse. By building bikes with different head angles, (I also rode a twin to this bike except for a shallower head angle) Gary and his testers were able to empirically check out theories.

How did it ride? Great. I thoroughly enjoyed it. It fit so well I almost thought it had been built for me. It climbed like a tiger (which I had ample opportunity to do while riding in Marin) and no matter how slow I was going, was wonderfully stable. The downhill were a touch trickier because of the steeper angle but the bike was still faster than I. After initially experimenting with the rake, I settled on a position somewhere in the middle of the dropouts and never moved it again. In fact, with a standard fork, that was one bike I definitely could have been happy on day after day. I have no idea what the overall geometry, other than the head angle, was but whatever it was, the bike was a joy to ride.

So now you know at least part of the process that goes into bike design. Today's Fisher MountainBikes have evolved because of test bikes such as the one I rode. And there's no doubt in my mind that they're much better for the effort.

## Marushi MT18

If you don't think mountain bikes are getting better, you haven't been down to your local bike shop lately. It's pretty amazing what your dollar can buy these days. The Marushi MT18 typifies what's been happening to prices and quality. For somewhere between \$350 and \$600 (the price depends upon when the shop bought the bike, the yen and dollar are changing so rapidly currently that keeping track of prices is impossible) you can buy an excellent mountain bike you can race, tour, or sport ride on.

Components are top of the line: Shimano Deore XT brakes, levers, derailleurs, and shifters, Shimano 6-speed

freewheel, Shimano chain, and Shimano Bopace 28/38/48 chain rings with a Shimano 600 bottom bracket. Tubing is Ishiwata quadruple-butted and oversized for mountain bikes with a Tange Unicrown fork. It's all excellent. There are even braze-ons for three water bottles and front and rear racks. The one place where manufacturers are notorious for saving a couple of bucks is the saddle. Even here, Marushi paid attention with a Vetta anatomic saddle that was quite comfortable.

The geometry is pretty standard. Nothing radical here. Eighteen and a quarter-inch chainstays and a forty-three and a half-inch wheelbase with a 70-degree seatpost and 69-degree head tube. Despite

*The Marushi MT18 typifies what's been happening to prices and quality. It's all excellent.*

the swing to shorter chainstays (17 to 17.25" is no longer unusual), shorter wheelbases (42 to 42.25"), and steeper angles (71-degree head, 73-degree seat), there's still much to be said for the older style geometry. The key is weight distribution and Marushi obviously did some homework here. The bike felt neutral. Making weight adjustments between front and rear required only a subtle shifting of the body. Climbing traction suffered a bit because of the long stays but then the bike's comfort was also due in part to their length. And comfort is important on the dirt.

Our test bed was the Slickrock Trail near Moab, Utah. An hour on that hard sandstone can be tiring but the Marushi stood up to the test in fine fettle. It did everything we asked of it and never complained. Probably the only thing we'd immediately change on the bike are the wheels, tires, and pedals. The RM 25 rims are fine but we prefer the narrower 20's or Saturne 7X. There wasn't anything wrong with the Panaracer Ibox tires; it's just that there are far better tires available, notably the Ground Controls for dirt and the Ritchey's for a combination tire. The same thing goes for the pedals. In fact, the MKS Grolight 2000 pedals are practically

indestructible and relatively light. But we strongly prefer toe clips and haven't been completely satisfied with the results when we mounted clips on the pedals. But unless you're going to go for the Suntour MP 1000 pedals, you're probably better off sticking with the MKS pedals.

The one thing everyone was unanimous on was the paint. We liked it. Great color. In fact, all in all, everyone like the bike. Did what we wanted and the price is right.

## Dawes Ranger

Though I've not been there, I suspect the second most enthusiastic country for mountain biking is England. I'm always astounded at how many fat tired bikes are built there, probably because of their long history of frame building. English road frames have always been considered some of the world's best so it's not surprising that that expertise has been transferred over to the building of mountain bikes.

The Dawes Ranger is the first English mountain bike we've seen and it's quite different from today's American models. The 19.5-inch chainstays are the longest we've seen on a bike yet. The 44.5-inch wheelbase is also one of the longest. This is no race bike. The riding position feels quite upright, somewhat like riding a cruiser except that its length places the bars well out in front. Everyone initially felt as if they were riding their big brother's bike. But that feeling went away with familiarization. Moving the saddle all the way forward and a stem with less forward projection also would have helped.

All that just once again reinforced the importance of proper fit on a bike. If the bike is too small or too big or too short or too long for your body, that impression will override any handling characteristics

*I suspect the bike's forte is long distance touring with its long wheelbase giving a wonderfully comfortable ride.*

unless you are able to spend enough time with the bike to adequately discover its handling characteristics.

That's particularly true for the Dawes. The bike's surprisingly agile considering its dimensions. I suspect the bike's forte is long distance touring. The long wheelbase and chain stays give a wonderfully comfortable ride. Combine that with the spring suspension seat and even the most tender buns will probably voice minimal complaints. All that seems to conform to the picture I've always held of Brits. I can just see some Englishman pedaling off across Africa, sitting upright on his Dawes, loaded panniers slung over the wheels, a jaunty cap perched on his head, and a wool scarf dangling around his neck. In my mind, mad dogs, Englishmen, and adventure are inseparable. A Dawes mountain bike strikes me as being a rather perfect representation of that image.

The frame is hand built out of Reynolds 531 mountain bike tubing (what other kind of tubing would an English bike be built with). Components are a somewhat typical potpourri of Japanese components and all work quite well. The biggest single complaint voiced about the bike were the tires, heavy 2.125 street treads that performed abominably on the dirt. Their performance on pavement was all right but if you're going to go with a street tire, why not just go with something like the Specialized Nimbus 1.5's? They're lighter and much faster.

No one was too thrilled with the grips either but as we're always saying, you're not buying the components, you're buying the bike. Components are easy to switch. That's why we don't spend much time on them.

This is not a bike that's easy to categorize. There's so much about it that states unequivocally that it's really a very rugged city bike. But then, once you get used to riding it, you'll learn that it's quite a bit better off-road than you might have thought. In fact, it's really quite good. Weight distribution is distinctly forward because of the long rear triangle and a relatively short front center yet it's handling was more neutral than expected. The latter was probably due to the seventy degree parallel angles. And over rough terrain, the bike was smooth as a chauffeur's driving. If you've ever watched someone drive a Rolls over a twisty road at speed, you'll know what I mean. They look sluggish but they can lift their skirts and fly. Like we first stated, the Dawes is no race bike but there's a lot more performance there than perhaps meets the eye. Besides, she's British and there's a certain magic to English bikes.

## Fisher Experimental Test Bike

Mountain bike geometry is not the result of some sort of haphazard stumbling in the dark. Quite the contrary, the design process is a combination of theorizing and past experience. Bicycles have been around for so long that there's almost nothing done today that wasn't tried years ago, even before the turn of the century. So anyone who designs a bike has a wealth of information to draw upon.

With that much history, a person could easily think that bicycle design has run its course and there's nothing more to do. Yet mountain bikes continue to evolve every year. Why? Evidently it's just man's permanent quest for perfection. Or perhaps it's just the need to express our



Panoramas combine with deep canyon views on this ride.



# Gemini Bridges, Utah

## James Duke

It took us five hours to drive from the middle of winter to summer, from the heights of the Utah's Wasatch Mountains to the depths of the canyons surrounding Moab. We drove the distance at night, arriving at our favorite campsite along the Colorado River in the middle of the night. We awoke to a hot sun burning through the window of our VW Camper, a wall of brilliant red sandstone towering overhead, and the gentle sounds of the Colorado River lapping at the shore nearby.

After a leisurely breakfast and luxuriating in the heat, we packed up and headed into Moab to the Rim Cyclery bike shop. We'd been to Moab quite a few times in the past and were relatively familiar with the area but we always stop to ask Bill's and Robin's advice on new rides to tackle. The country is so vast that a local's knowledge is almost a necessity.

But first we decided to ride the Slickrock Trail for a quick warmup on an old favorite. This was on a Monday in early March. The assumption that we'd meet no one else there seemed safe. We were wrong. Four cars with bike racks were already there. No one was in sight but we knew we'd probably run into them on the trail. Though we'd left Park City to get away from people, the prospect of

running into other mountain bikers was heartening. That's always a time for stopping and visiting and finding out where they're from and what they do and how did they ever find the Slickrock Trail. The sport is still young enough and the numbers small enough that there's always a wonderful sense of community amongst bikers.

We also had an bonus land in our lap. We wanted to ride a different trail and we met some firemen from Salt Lake who knew of what sounded like a good one, the Gemini Bridges Trail. They were going to ride it the next day and offered to show us the route.

We also met some folks from Mountain Bike Magazine out testing bikes. They invited us to take them out for a spin which we eagerly did. The average rider doesn't get the chance to ride a variety of bikes in as ideal a test area as the Slickrock Trail. In fact, neither of us had ever ridden any mountain bike other than what we owned. We'd watched friends gleefully riding these fat tired wonders and one day we decided to buy two of them. We ran down to our local bike shop and bought whatever they had, two Specialized Rockhoppers as it turned out. (We haven't ridden our road bikes since.)

Being able to check out different bikes was a treat.

But even better, they also had their own bikes with them, a Steve Potts and a Klein. Ever since buying our Rockhoppers the year before, we'd wondered what a really good bike was like. Were they really worth the substantial cost?

We were dying to find out what these famous bikes were like. When they said take them if we want, we leapt at the opportunity so fast, we left our shoes behind. Here were two of the reportedly finest mountain bikes ever built and we were just handed them to go ride! On the Slickrock Trail no less! It was like a dream.

Oh, yea, what were they like. Incredible, I think. I mean, I don't know if they're really that great since I'm not an expert rider or anything but man, they sure felt great to us. Maybe we were just geared up for that reaction because of their reputation but whatever, we couldn't get enough of riding them.

We agreed to meet the next day to ride the Gemini Bridges Trail. We stopped in that afternoon at Rim Cyclery, after a belly quenching milk shake made with Hagia Daz ice cream, and asked about Gemini Bridges.

Another interesting finish greeting us.



James Duke

The Gemini Bridges



formations until we finally were on top of the uplift. The views were superb with snow-capped peaks in the background and a jumble of canyons, buttes, and solitary obelisk like towers of rock rising up into the blue sky.

The riding was excellent but somehow the steady workout over the blacktop wasn't what I was looking for. I longed for the challenge of dirt, trying to catch the views while simultaneously watching the road for rocks, sand washes, and various and sundry obstacles. Amazingly, during the twelve miles, we were passed by at most two cars!

The route followed a dirt road, a jeep road in Utah's parlance. Except for occasional sand washes, I could have driven it in my car. For bikes, the road was superb. We flew down hill after hill. Had we been on pavement, our speed probably wouldn't have seemed much but on the dirt, hell the time I felt like I was hanging on for dear life, never sure if I'd make it or not. I loved it. Riding with the others was exhilarating. They were strong riders and liked to fly. We were constantly over our heads attempting to keep up with them but somehow managed to hang on. Not that we had to. They'd all regularly wait for us or slow down periodically. But that wasn't what we wanted. Their speed opened our eyes to what could really be done on a bike and by the time we got back to the car, our previously perceived mountain biking limits no longer existed. There'd be no more dowdy rides, always cautiously approaching every obstacle, wary of falling or not making it.

The first part of our ride, about twelve miles, was great for views but the riding made me once again realize how little I miss road riding. We followed the paved highway towards Dead Horse State Park, climbed up through steep hairpins higher and higher through the sandstone

The one thing I dreaded about the desert was sand. Whenever I'd tried to ride through it, I'd bog down and have to push. But surprise, not this time. We were following Kim at one point when we approached a patch of sand. Instead of slowing down and getting ready to dismount for the push as I was doing, she sped up and flew into it. Before I knew it, she was disappearing up the road, legs spinning steadily. She rode the entire distance without dismounting while we wearily pushed ours along. She told me afterwards to go ahead and hit the sand with some speed, but not too much, and to subtly shift my weight back to keep from over weighting the front wheel when it first hits the sand. She also recommended down-shifting before hitting the sand so you're ready to spin away.

Sand had always been my nemesis. I was defeated because I knew I couldn't ride it. But after seeing Kim cruise right through, I charged headlong into every sand patch. Before long I was riding through almost all of them. I even started looking forward to sand. Spinning through it was exhausting and before long, I'd be practically gasping for air but the challenge of forcing my way through was so exhilarating that it didn't matter.

But I'm giving the wrong impression. We actually spent very little time in the sand. It's just that the sand made a tremendous impact on me because I learned to ride through it. Almost all the distance was on firm though rocky ground. Less than ten percent was sand and of that, only one long section, about a hundred yards long, was completely unrideable. Well, at least it was for every one but Fred. Somehow he managed to ride all but about the last fifty feet and he probably could have ridden that if he hadn't been worn out.

Most of the distance was all downhill or level. What a treat! The first section swept down off the mesa in a series of pretty fast turns with a lot of loose rock lying about. A long flat followed. The road cut straight across it. I found myself in my biggest gear, frantically trying to keep up with everyone who seemed to be rapidly diminishing in front of me. It was great! I loved it!

We turned off what appeared to be the main road onto a double track winding through junipers and pines and over patches of slickrock. Roads turned off to one side or the other and I was glad of the guides. There were absolutely no signs indicating where we were. Without the others, I would have had no idea which road to take. Jeeping maps are available but I imagine the only maps that would really be of any use are USGS contour maps. Even those probably don't show all the roads taking off across the flats.

The terrain was now pretty flat. Then the junipers and pines grew more frequent. Suddenly, with no warning, we dropped down a short hill of slickrock



with few towns in between. The nearest "improved" road was some 15 air miles ahead at Loon Lake. Our energy level picked up as we began the gradual climb up the McKinney Creek drainage into these vast backcountry territories.

The Forest Service had recently filled in stretches of the road with six to eight-inch diameter rocks to stop water borne sediments from reaching Lake Tahoe's ultra-clear water. In the process, they created a classic "Sierra cobblestone" roadway. Some sections stretched for over 200 yards. I opted for the high gear, high momentum skim method to traverse the shorter sections. The others preferred

to the elusive race.

Afterwards, their descriptions of the valley caught our interest. Granite slabs and a spring surrounded by quaking aspens and tall pines and a set of graves sounded worth searching out. We passed the infamous intersection and soon arrived at a fantastic vista where the road began its plunge into Rockbound Valley. Foothills extended into the west as far as we could see. Rockbound Valley and the Crystal Range were southwest of us while the Pacific Crest disappeared to the north.

We were soon maneuvering down a rough road through a cool, dark green forest. The road kept dividing into two or

Memorial" annual plates. The "Clamper Rubicon Memorial" is a jeeps jamboree when some thirty jeeps travel from Tahoe to Georgetown. He must have been a victim of this trans-Sierra pilgrimage.

We wound our way across the valley floor, along a smooth road occasionally interrupted by a well worn boulder. The road was pulverized and dusty by heavy use, evident by the number of campsites. There was even a mini-amphitheater complete with seating for over 100 people. Luckily we had made our journey during the peace of fall and didn't encounter a single jeep.

Reaching our objective by noon left us



Tahoe - Roubaix Trail with Desolation Wilderness in background.

the low gear, spinning trials technique. Either way was a good test of bike handling skills.

The McKinney/Rubicon road wound its way up a broad, glacier carved valley to the Pacific Crest at Miller Meadows (elevation 7,000 feet). The shade of a thick conifer forest surrounding McKinney, Lily, and Miller Lakes provided welcome relief from the day's heat. Though the cool lake water would refresh our tired bodies, we still had a long way to go and elected to continue over the relatively flat crest.

All of us had ridden the area several times before during a NORBA race. The stories we'd heard about Rubicon Springs came from riders in that race, including Jim Deaton and several of the single speeders. They'd inadvertently blown by an obscure, under marked intersection two miles past Miller Lake. They'd raced far down the wrong road before eventually realizing they were no longer on course. The single speeders caught up to a disappointed Jim as he was pushing his way back out. Their unanimous decision was to continue on down to the picturesque valley floor below where they eventually pushed and rode their way back

three routes worn by jeeps attempting to bypass mud and boulder pits caused by water from springs seeping out of the hillsides.

Our bikes easily overcame the constant obstacles but how the jeeps managed was beyond our understanding. It seemed impossible to negotiate the more difficult sections without inflicting severe damage to their vehicles. We may not have admired their mode of travel but we had to respect their tenacity to drag jeeps back here loaded to the gills with camping gear, tools, spare parts, and beer.

Eventually the grade lessened and we no longer had to ride with a firm grip on the brake levers. The tombstones were nestled amongst shimmering aspens. They blended in so well with their surroundings, they almost passed unseen. The older grave was inscribed with "Sydney Mainwaring (1909-1975). A man to match our mountains." We guessed he was some sort of mountain man who'd lived in the area. The cemetery's other occupant was Earl Gurnsey who died at the young age of 33 in 1982. His tombstone was covered with over a dozen "Clamper Rubicon

plenty of time for lunch and a little exploring of the area. Just outside of this oasis tucked within Rockbound Valley's barren landscape was a mountain biker's heaven. Glaciers had scoured the granite into a smooth, polished surface. Over the ensuing eons, the Rubicon River had continued sculpting the rock into frozen waves of undulating bedrock that extended for miles across the slopes. Cross-country biking took on a new meaning.

After a leisurely lunch, we decided to continue along the road to Buck Island Lake. The road immediately disappeared to be replaced by a creek bed through a thirty-foot boulder split in half. The gap looked just barely wide enough for a jeep.

Half of the time we were riding and the rest of the time pushing as we climbed up the valley. The road continued to look more like a ditch than a popular motor route. We soon left the cool shade of the Springs behind and entered the much hotter environment of manzanita and rock. We'd passed several old road signs along the way then we came to an uphill hairpin turn that was littered with them. Everything from "Rough Road Ahead"

"Loose Gravel", "Abrupt Edge", and "Detour Ahead", to my favorite "End of County Maintained Road". A couple of large steps in the middle of the turn were the crux of the hill climb for the four wheelers. How they got up is beyond me.

I could just see it: dad sweating in the driver's seat, the family on the hillside watching the show as the winch strains against the large yellow pine at the top of the corner. The distinct smell of a burning clutch and a couple of lurches later and it's Miller Time! The only thing I envy the motorized off-roaders is their supply of cold beer.

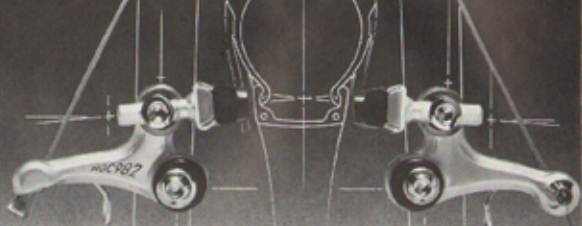
Our progress quickened as the grades lessened. We soon found Buck Island Lake, a partially man-made lake in a hanging valley. The island was originally a glacial tarn but has been expanded with a dam and is now part of the all consuming northern California water supply system. Oddly enough, the concrete dam seemed to fit into the surrounding expanse of granite, its curves matching the land's contours. The road became increasingly difficult to see as it wound over the cement like surface, periodically reappearing on soft areas. The main road headed downstream to Loon Lake via the Little and the Big Sluice Boxes, two reportedly radical boulder fields. They would have to wait for a future day.

The length of the trip and its technically demanding nature was taking its toll. We took a break to conserve our remaining mental and physical energies for the trek back up to the Pacific Crest and down to Tahoe City. After surveying the local region and figuring out where we'd come from, where we'd been on previous rides, and where we could go in the future, we collected our gear for the return journey. We quickly descended back down the creek bed to Rubicon Springs. A kidney belt wouldn't have been a bad idea. We weaved our way across the valley floor then started up the long climb. The road was rocky, steep, and wet but the traction good.

The climb was rapidly draining the last of my energy. I dug into my psyche to find that spark that would enable me to keep my legs moving. The others continued hammering up, weaving steadily through the obstacles. I was staring at the scenery to distract my mind from the effort when I spotted another kidnapped sign that made me laugh. A green and white "Bike Route" sign hanging upside down from a large tree provided a welcome relief. Twenty more minutes of sustained spinning and I found the others resting at the vista overlooking Rockbound Valley. The worst was over.

The switch from wilderness to civilization is almost always an abrupt change but at Tahoe, sometimes it's a little easier. The sun had just set behind the mountains lining the lake's west shore. A few wispy, high altitude clouds were pointed purple by the sun's last rays while the lakes' surface looked like a plane of glass. We slid back into town content.

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Marin County, California - legendary birthplace of mountain bikes. Countless stories have been published on the Repack race and the sport's early days. But what was it about Marin County that spawned this cycling revolution in the first place? Our Editor traveled there to find out.



Four of the many varied views to behold on rides throughout Marin County

# *The Riding of Marin County, California*

*Story and Photos by Hank Barlow*



## Marin

I was pedaling slowly through the twilight, enjoying the damp coolness on my sweating brow. I'd been out for hours during the afternoon chasing Mark Slate through the hills of Marin and was tired. I'd just created the low pass between Mill Valley and Corte Madera and had stopped to enjoy the quiet and drink the last of my water. The road was closed because of a mud slide so no traffic disturbed the stillness.

I leaned the bike against a guard post. Then I heard muffled voices coming up the other side of the hill. A string of bikers came into view, young teenagers, all boys, all on mountain bikes. They immediately spotted the experimental Fisher test bike I was riding and cruised over.

"Neat bike, what is it?"  
"Far out! Is that Fisher's new race bike?"

The questions tumbled out faster than I could answer them. Their enthusiasm washed over me in waves and I found my muscles stirring with new energy.

"We're off for the Wednesday Night Ride. Up Mt. Tam. Wanna come? There'll be about twenty-five of us."

I did. But I couldn't. I already had an engagement. But I wanted to. Their energy was infectious. I'd ridden most of the day and was beat but I wanted to turn around and join them. It sounded like fun. They all had jackets or sweat shirts tied around their waists and lights mounted on their handlebars.

They jumped back on their bikes and, with carefree waves, headed down the back side of the pass. I reluctantly continued on, passing a stream of riders spinning up the hill, all young, all on mountain bikes, all eager. I kept thinking how those riders were the perfect image of Marin mountain biking: the joy, the camaraderie, the adventure, and, yes, the hassles.

Marin County, California, it's almost impossible to be involved in mountain biking and not have heard of Marin County. Legions of stories have been printed in scores of magazines about the early days of mountain biking and the sport's pioneers. People like Jay Breeze, Gary Fisher, and Charlie Kelly. Events like the Repack Downhill. Yet there's rarely a mention of the riding that spawned the sport in the first place. Those kids heading up Mt. Tamalpais' fire roads into the twilight are that story, more so than the Repack or the frame builders or any of the printed hype.

They were out for adventure, out for fun, out for a party on bikes. They were headed into their backyard to play. And

what a backyard it is. Mt. Tamalpais rises 2,400 feet above San Francisco Bay while its bulk stretches all the way to Point Reyes on the Pacific coast. Hugging its ridges and precariously clinging to its slopes are the towns of Marin County: San Rafael, Mill Valley, Fairfax, Corte Madera, San Anselmo, etc. The towns are jammed with people living on seemingly every inhabitable space and many that aren't. Yet despite this abundance of people, some eighty percent of Marin County is preserved in Water Board, State Park, and National Park lands. Criss-crossing this maze of hills and valleys are countless miles of fire roads and hiking trails and an abandoned railroad grade, a veritable mountain biking paradise.

Tired of snow and cold and with airline prices too low to ignore, I packed up my clothes and flew to Marin to find out just how good the cycling really is. What better way to discover the wonders of Marin County than following the local frame builders and riders on their favorite rides. Unfortunately most of the single tracks

**Local Riders are starting to feel as if a noose has been placed around their neck and slowly tightened.**

have been closed to bikes. They're only allowed on fire roads and not even all of them. Local riders are starting to feel as if a noose has been placed around their neck and it's slowly being tightened as more and more of their finest rides are closed. The war against bikes seems to be heating up.

I arrived in Oakland in the afternoon under blue skies. By the time I got to San Rafael, it was raining, hard. Great! I traded snow for rain, powder for mud. Things weren't much better the next day. But by mid-morning, when I arrived at Mark Slate's house, the rain had stopped and the sun was threatening to break through. Steve Potts loaned me his bike and I was ready to chase Mark over the hills.

And I do mean chase. Mark is a demon on trails and hills. He led me on a circuitous path through Mill Valley then up a single track past houses hanging out

over slopes too steep to hike up. Then we spilled out of the woods onto the old railroad grade. Railroad grades make for super riding. They rarely exceed seven percent. The pedaling is easy and the ground smooth enough to maintain a steady, fast cadence. The riding was so easy that there was plenty of time to enjoy the views. It was easy to see why everyone who lives in Marin County loves it.

The sun broke through, though dimly, and we stripped down to our shirts. Near the divide between the Pacific Ocean and Bay side drainages, Mark led me onto a more challenging route. I was no longer able to keep looking around me. Instead, I had to concentrate on keeping upright and on the route. Then we were on a fire road that led over the back side of the mountain near the summit.

A widely grinning Mark led me away from the fire road to a gigantic tree. He stashed the bikes then started up. The tree was an amazing jungle gym with thick branches sticking out everywhere. The climbing was excellent. Higher and higher we scurried from branch to branch until there was no more tree. The Pacific Ocean lay at our feet, rain squalls sweeping across the water till they collided with the land. We sat in our tree and ate and talked. He pointed out one ride he knew I'd enjoy: the ride along Bolinas Ridge to Point Reyes Station. Bolinas Ridge is the divide between streams draining into the Pacific and those draining through Marin County into the Bay.

After retreating from our nest, we headed off on one of Mark's favorite rides. The route dove through the trees, dropped down a hill over rock ledges, then swept into a meadow of grasses. After another fast descent, he hung a sharp turn and disappeared into a stream bed, popped out the far side and flew up the hill beyond and around another turn. As fast as he'd gone, I figured the passage was cake. It wasn't. The stream crossing was narrow with large rocks in the middle. Exiting the stream bed required hopping the front wheel over a lip then accelerating up a side hill.

I walked my bike through. Seemed safer and much easier.

We continued through a rain forest then rounded a ridge into an area of crumbling granite and wind-twisted conifers. I stopped to take in the scene while Mark sped on. I caught up to him at a rock outcrop where he was sitting looking out over the mountain and valleys.

"This is where I always pay homage to the mountain. One of those special places."

Our route kept on along the same genre. Occasional obstacles that he passed over as if they weren't even there, I usually walked over. Redwood trees flashed by whenever we entered the cool, dark depths of the valleys. I had no idea where we were. But where we were wasn't important. Then, without warning, we were back on the fire road we'd ridden upon some four hours earlier. Too quickly, we were back in town, hungry, tired, satisfied.

The next day, after stopping by Fisher MountainBikes and picking up an experimental test bike, I rode from San Rafael to Mill Valley via pavement and fire roads. Steve Potts then described the route along Bolinas Ridge to Point Reyes Station where I was to meet Marshall, one of the owners of Point Reyes Bikes, at two for an afternoon ride.

The ridge ride was everything I'd been told it would be and more. It was two hours of wonderful pedaling in the midst of deserted backcountry. The first part from near the summit of Mt. Tam followed paved road contouring along slopes some two thousand feet above the ocean. Every slope was layered with fields of grasses while what few trees there were had been sculpted into bizarre, aerodynamic wedges by the winds. Though the road was paved, I was glad of my fat tires. The pavement was in dire need of help. A T-intersection in heavy woods on top of the divide marked the

start of the fire road. I'd been told that recent storms had knocked down lots of timber and they were right. The first one was shortly after passing the access gate.

The road stayed in the timber. Huge redwoods towered overhead. The road's surface was a soft mixture of dirt and decomposed leaves, needles, and bark. My passage made not a sound except for the occasional rattle of the derailleur. I'd expected to be riding across open fields along the ridge crest but this was better. There's something about woods that mystifies as if there's a magical aura about. Maybe it was the shafts of sunlight shooting down through the canopy of branches. Maybe it was the wisps of fog or maybe it was just the incredible silence. The vegetation soaked up sound like I heard into a sponge. Nothing moved. All I heard was an occasional tree groaning as if from old age.

I was quickly learning why Marin riders are so strong: they're either pedaling up a hill or flying down it. The ridge is pretty level but on a micro level, it consisted of short hills linked by flat sections. None of the hills were particularly long but they just kept coming. I was lost in the woods with no idea of where I was other than somewhere on the Bolinas Ridge but wasn't worried. Steve had told me to stay on top of the ridge and I did.

When I finally exited the woods into fields of grazing cows, I could see exactly where I was. To my left was the long ridge

## Marin

of Point Reyes National Seashore. In the distance in front was the village of Point Reyes Station and beyond was Tomales Bay.

I was riding on top of the San Andreas Fault. Tomales Bay is the fault. The valley to my left is an extension of Tomales Bay. They say Point Reyes National Seashore is moving north while the ridge I was on is moving south but I didn't notice any movement during my passage.

The land the trail traversed was grazed and fenced. Someone had come up with an ingenious gate to eliminate the probability of hikers, horsemen, or bikers leaving gates open. It's an acute vee made out of planks nailed to posts with another plank fence splitting the vee. You have to literally squeeze down one side of the vee then pivot and squeeze out the other side. There's no way a horse or cow could ever manage to get through that obstacle. I'd lift the bike over the fence then slide through sideways. I'm pretty thin but I still had to slide sideways through every one of them. They may have been tight but they're effective.

The trail eventually intersected the highway from San Rafael to Point Reyes

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Station just outside of Olema, another small village with what is reportedly an excellent restaurant in an old house at the intersection with the Coast Highway. From there to Point Reyes Bikes was an easy two-mile cruise.

Point Reyes Bikes is an uncommon bike shop. They sell only mountain bikes and almost all of those are custom bikes. Oh yea, they sell Specialized Rockhoppers and the Japanese Ritchies but their forte are Cunningham's, Kleins, Steve Potts, Switts, Salsas, Ibis, and Fishers. And they don't have just one or two of each model on hand. The shop is practically filled with them. It was easily the most impressive display of fine mountain bikes I've ever seen.

Marshall was ready to ride when I arrived. After a quick bite, we were off for a tour of Point Reyes National Seashore.

Of all the places that have been closed to mountain bikes, the Seashore is one of the most tragic. People had been riding there long before it was classified as a Wilderness and it wasn't even very long ago that others had been living and ranching there. Some of the roads in the Wilderness had even been paved! Park Service personnel had stated that bikes



were not a problem, had even encouraged their use. Nevertheless, they're now banned. The tragedy of that decision is that there's no better mountain biking than what's to be found at Point Reyes. The trails are smooth and most of them are amazingly level. Sure, there are some steep hills but any novice mountain biker who's out of shape could cruise out to Point Reyes and have a superb day of riding and rarely ever have to dismount.

There's a trail along the coast that is unbelievable. I don't know of a better one. The views are outstanding and the riding a cakewalk. But now all you can do is hike the trails and drool at the thought of what it must have been. Not that hiking is a bad way to get around. I've done much of it and still do and love it. But the distances at Point Reyes are such that they pretty much preclude any but the very fit from enjoying the trails. But with a mountain bike, a person can easily cruise the Seashore's length and be back in town for dinner. But that's all history now.

Fortunately not all of the Seashore is closed to bikes. They're still allowed on some of the fire roads and that's where we headed with Marshall. He's knows the area intimately and wasted no time in getting me lost. We hammered up hill and over dale, dodging around trees then suddenly skidding to gravel spraying stop just to look around. A storm was supposed to be approaching but there was no sign of it then. Blue skies and scattered

clouds were all we could see, that and the Pacific Ocean stretching into the distance. At one point, we rode over a hill and dropped into a valley and saw Point Reyes' famous white deer. They were white too, not just sort of.

That was one of those rides that I didn't want to ever end. The pedaling was too good, the views captivating. But a setting sun, worn out muscles, and the first signs of the approaching storm finally sent us scurrying for home. But what a day it had been. From Mill Valley to Point Reyes via the Bolinas Ridge fire road then all over the Point Reyes fire roads and always through wonderful countryside.

It was pouring the next morning. Sheets of water spilled out of a low, gray sky, instantly filling gutters with rushing water, slapping the pavement in audible waves of sound. I was to meet Gary Fisher later that morning and wasn't in the least excited to do so. My body was beat and aching to just stay inside and I was sure that because of the rain, the ride would be called off. Then Roger called and said he'd meet me in half an hour and we'd ride over to Gary's. Once again I slipped into my rain gear and rode off into the grayness.

By the time I met Roger, the water was coming down even harder and I was sure we'd call it a day. We rode over to Gary's, pedaled in his driveway, and before we'd even dismounted, he walked out, ready to go. I thought, "Oh boy, this could be a long day." I was still tired from the fifty

miles I'd ridden the day before and the thirty-five miles the day before that and now I was off in pursuit of Gary. I decided right away I'd better pace myself carefully or I'd never make it.

That was a good plan only things didn't work out that way. Gary took off up one street then another, always uphill, slipped past a school and onto a fire road and started climbing. And I mean climbing. I immediately dropped into my lowest gear, figuring I'd be slow but I'd be spinning and lessening the wear on my legs and eventually I'd catch up whenever he and Roger waited for me. Roger was a young tiger and literally attacked the hills. I couldn't believe how fast he flew up them.

But I wasn't worried. Pretty soon the road would level off and I wouldn't be so slow. I didn't really need the granny gear. I just wanted to save my legs. Or so I thought.

The hill didn't stop. It got steeper. Now I was using my lowest gear because that was the only way I could get up. Every time we rounded a bend, I expected to see the trail leveling. It didn't happen, not for awhile at least. Then finally, gratefully, the road stopped climbing. We even hit a paved road. I sat back and cruised, enjoying the relief while we rode past a lake.

Then we were back on a fire road and climbing again. Only this time, the hill was even steeper! I'd try standing to get up but

*We were now on a rarely traveled route, well away from the more popular areas of Mt. Tamalpais and the road showed it. We had to duck under branches, hop over logs, and ford creeks overflowing with water. This was adventure riding at its best.*

the road surface was too loose and I'd spin the rear wheel. All I could do was lower my head, grit my teeth, and plug away. At one point, when I was dying and wondering if I'd have to turn around, Roger, who'd gone back for something earlier, came ripping by me. Not even a whimper of a thought about speeding up to go after him crossed my mind. Heck, I was just glad to keep going. The hill was unbelievable. There was absolutely no letting up. Every time I'd think about walking, I'd look up and catch a glance of Gary spinning away as smoothly as ever. Then I'd just lower my head again and keep on grinding away.

I have no idea how much time actually passed before the road finally did level out. All I know is that it was a lot, too much in fact. But I'd made it. Gary and Roger were relaxing while waiting for me and talking about where we'd go next. Gary swung onto another road and suddenly we were going downhill. What a treat! I was coasting! I knew it couldn't last. It didn't. He turned again onto another route, one of his favorite rides and that was the end of the downhill for quite awhile.

We were now on a rarely traveled route, well away from the more popular areas of Mt. Tamalpais and the road showed it. We had to duck under branches, hop over logs, and ford creeks overflowing with water. This was adventure riding at its best. It was





## Marin

beautiful. The rain had long ago stopped and only a very wet and very gray mist clung to the land and vegetation. We crawled over so many ridges and dropped into so many valleys that I had no idea if we were even still in Marin County. Water was running everywhere and streams pouring down the slopes formed striking waterfalls.

Finally, after hours of steady riding, we were beside a lake then on a paved road. It had started raining again and I was beat. Roger and Gary seemed as fresh as ever. I couldn't believe it but I was actually glad to be on pavement. I figured at least the riding would be easy and I'd be able to make it back. Naturally, the road immediately started climbing. I groaned out loud at the sight. But it was short and followed by a downhill, also short. Then I



looked up and saw the road well above me on the slopes of a hill ahead. I about fell over. To top it off, we hit a head wind. Just what I needed. Gary and Roger patiently waited on me while I spun along in my lowest gear. But by that point, I was so beat that any vestiges of pride had long ago been lost. All I wanted to do was get to the top.

From the summit back to town was literally all downhill and fast. Only I couldn't enjoy it. I watched the others disappear and just hung on, coasting or pedalling slowly. The rain was once again dumping. Hail even came down for a minute!

We made it. Gary pulled off at his house, Roger left me at a store where all I wanted was something to eat and drink. How long I stood in the shower that night, hot water cascading over me, is unknown. Whatever it was, it was too short.

The next day was my last then it was back to the snows of Colorado. I'd

originally planned on going riding up north with Scot Nicol of Ibis Cycles but it was raining even harder up there so the ride was called off. Now I was going to meet Steve Potts for another tour of Mt. Tamalpais. He promised we'd just cruise, no killer hills, no marathons. Just a quiet cruise.

That sounded great but I knew Steve too well. He doesn't ever do anything halfway. But the day looked promising and kept getting better by the hour. Once again I hopped on the bike and took off.

Steve was a man of his word. It was a pretty relaxed cruise. We started off up a rarely used fire road that was rapidly being lost beneath fallen eucalyptus branches. We only had to dismount and push twice. Then, after pedalling up the pavement for a spell, he swung onto an old single track that contoured across a hill. There were houses clinging to the hill above and more below. The trees were so tall that it was like riding in a cloud. The sun was baking the tree tops but down on the ground, there was no sign of it. All the houses had their lights on in the middle of a sunny day. Steve kept pointing out little cabins tucked away in the woods. Their only access was by foot. Some were over a hundred years old.

Steve's a fifth generation Marin boy and knows the area intimately. His love and appreciation of Mill Valley and Mt. Tam are contagious. Spend any time with him at all and you'll probably find yourself suddenly looking for excuses to move out there.

The single track was a combination of riding along a wide plank on a steep hillside and delicately balancing over rocks and around exposed roots, slick with rain, while applying maximum power to get up a hill immediately after crashing through a small stream bed. The objective was to get through with no dabs. I dabbed twice but then so did Steve so I felt good.

Beyond the single track were more fire roads and semi-paved roads than we were in the sun. The ride so far had been rather like passing through a long, dark, wet tunnel. I preferred the sun. From there, we joined the railroad grade for a leisurely pedal while soaking up the heat. It really was leisurely too, an unheard of event as far as I could tell with Steve.

San Francisco stood out in the distance like a diamond on a piece of black velvet. It sparkled with light while sailboats danced over the Bay's coldly blue waters. The panic of the city seemed eons away though there it was in plain view. We cruised the railroad grade, meeting joggers, hikers, other bikers, even one

horsewoman. All were friendly. Some even asked about the bikes. Thought it looked like fun. We rode miles like that, never in a hurry, steadily spinning the cranks just enough to almost break a sweat but not quite. Steve was forever stopping and telling me I just had to see some sight. Like I said, his love for the mountain is infectious and unstoppable.

But finally, just as I knew it would, Steve's irrepressible thirst for adventure took over.

"Hey, you gotta try this. You'll love it. Just keep going and so for it."

I hadn't the vaguest idea what he had in mind but I did know that whatever it was, my riding skills would be taxed to the limit.

He dove onto a single track that followed a buried pipeline. Rains had eroded a deep and very narrow channel down the center of it. Steve plunged into it with no hesitation and was gone from view. I followed but was soon sedately walking along, pushing the bike, trying to decide if he'd really been able to ride all that cleanly. I was sure he had but couldn't really believe it.

Again, I gave it a shot but again, my conservative nature took over and I exited stage left before I made a more dramatic exit right over the handbars. He put on quite a display of riding skill. From there, it was a smooth and fast cruise back down into town.

So what's the Marin riding like? Is it as good as they claim? Yes and yes.

The riding is whatever you want it to be and it's definitely as good as they say. Maybe even better. Just be prepared to climb. If the land is level, houses have probably been built on it. Even if it's only slightly tilted, they've still probably built houses on it. Everything else is steep. So be prepared to climb. And definitely take a camera along if you like pictures. Otherwise you'll find yourself constantly wishing you had one. That's the kind of scenery it is. And afterwards, when it's too dark to ride anymore and you're starving after your excursions, there are innumerable superb restaurants to satisfy your belly. Especially Chinese and seafood.

But if you're there on a Wednesday night, try to find out when and where the Ride's going to be. I think you'll like it. It's really the heart and soul of Marin mountain biking. Kids heading off for an adventure in their backyard.



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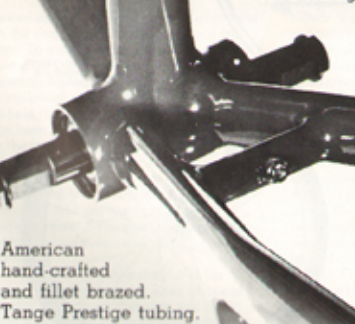
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## Letters to the Editor

Editor,

I love your magazine. The quality of the color photos are unsurpassed by any magazine I've seen. However, on page 11 of the Jan/Feb issue, you feature a photo of a "real" mountain biker not wearing a helmet. The importance of wearing a helmet cannot be over-stated. Recently a friend of mine, who has been riding a Cannondale SM600 for over a year, experienced a serious crash. He landed on his head. Judging by the damage incurred by his hard shell helmet (it was destroyed) and the concussion he sustained, his doctor, himself, and I were convinced the helmet saved his life.

When Mr. Porter asked in his article, "What do they wear?", my ATB friends all answer: helmets. Perhaps you could feature a short article about which helmets are most suitable for off-roading.

Bill Yoggerst, CA

That story's coming up in a future issue. But as far as which helmet is safe, any one that meets the ANSI Standards will fill the bill.

Editor,

I just wanted, first of all, to let you know how much I enjoy your magazine. The articles and photos are all quality. I look forward to the next issue.

However, I have a bone to pick with you - or a spoke to jab! Regarding your article in the Jan/Feb issue, "An Interview with America's Two Top Trials Riders", what happened to Rich Cast? He wasn't even mentioned in the article, a real disappointment to a lot of people. He's the underdog - every one rooted for at the Virginia City Nationals. I realize he didn't make it to the California Championships but he has been consistently in the top two over the past 3 years.

I understand he wasn't there for this interview, but I really feel you could have at least mentioned him - he's still jumping cars and picnic tables. Look for him as a bicycle messenger in "Quicksilver". Keep up the great work. See you at Fat Tire Bike Week.

Debbie Stuart, CO

You're right, Rich is a great trials rider and a great person. As you said, he wasn't in the interview because he wasn't there. The point of the interview wasn't to stroke the riders' egos but to let the world out there know what two of the top riders think about the sport and in so doing, possibly interest a reader into trying trials riding. Incidentally, I also heard that Rich eventually ended up second at the Nationals, not third as reported.

Editor,

(Due to the letter's length and our limited room, we've had to edit this one.)

Sally Reid's letter to the editor is flawed in some ways. It seems unfair to apply an account of a race, "Suicycling...", to the style in which most or all mountain bikers ride, whether it's true or not. The whole presupposition that mountain bikers run hikers off the trail is not substantiated in my research. I interviewed Sierra Club members in Santa Barbara and heard only vague, second-hand references to such accounts, while many equestrian users paid comment to considerate rider interactions.

Furthermore, the claim that bikers "cut across" switchbacks merely reflects ignorance. I have ridden all of the front country trails near Santa Barbara which the Sierra Club generously maintains, and I can testify to the falsehood of this accusation. Switchbacks are originally cut to make steep slopes traversable. Maneuvering then requires a delicate weight transfer and intermittent braking while inching through the tight turns. To cut across, or cut short a switchback, would be and is foolhardy, for you can imagine how steep the shortcut would have to be.

The trail rutting she mentions occurs predominantly in the shaley upper sections of a few trails, near the crest of the Santa Ynez Range. Rutting is caused by water runoff, and in fragile soils, any kind of vegetative denuding exacerbates the erosion. Most of these ruts were in existence long before mountain bikes were even used on trails. Perhaps they occurred originally because of horseback use or merely as a natural response to a trail cut in a sensitive area.

I believe in letting people work out their problems on a case to case basis. The Sierra Club condemnation is premature. There are more effective ways to discourage mountain bike abuse to trails, if it is occurring. Local Sierra Club work crews routinely dig narrow runoff channels across the trail tread. Their use is most crucial at steep switchbacks, the likely erosion hotspots. They serve as natural speed checks, too.

Finally, Gary Sprung's excellent commentary commits a glaring mistake when he presumes that ORV users take little pleasure in

"Aerobic muscle strain." Motorcycle off-roading can be very strenuous. It is unfortunate when ORV use impacts the solitude or aesthetic appreciation of a hiker, horseback or bike rider, but after all, the public lands are for public use, and incompatibilities are not resolved by belittling a user group or mocking their experience.

My feeling is that mountain bike groups should work to secure access to the vast Forest Service and Bureau of Land Management acreage, rather than to attempt to gain dubious entry into Wilderness Areas.

Todd Campbell, CA

Sorry we had to cut your letter back. In reference to your last paragraph, that's exactly what we've been promoting. Gary's Sierra Club story and my editorial and everything we constantly tell people is Wilderness is not the primary issue. In fact, Wilderness is a red herring drug across people's eyes to hike the extent to which bikes are being threatened with land closures. The rest of the public lands are where the problems lie and for some unbelievable reason, everyone is always focusing on the Wilderness conflict. Yes, you, I, and everyone else has to concentrate on protecting our rights that we ALREADY have to Forest Service and BLM lands; not gain them.

I also do not believe Gary meant to disparage motorcyclists. In fact, around Crested Butte, there's been a fine relationship. We all share the same trails.



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## New Product Review



### Off Road Drop Bars

Wilderness Trail Bikes now have in stock their Mountain Drop Bars, manufactured by Specialized exclusively for WTB. The bars feature a wide flaring of the drops (25 degrees off the top tube) and a special bend for off-road use. The final design was arrived at after much testing of a variety of existing drop bars modified for mountain bikes and prototypes. According to WTB, these unique bars provide the optimum in performance for backcountry riding over rough terrain and long distance touring where the ability to regularly change positions is of prime importance. WTB also have available modified Suntour thumb shifters. The shifters are mounted integrally with the brake levers and enable riders to shift and brake simultaneously without having to move the hands. For more information, contact Wilderness Trail Bikes, 105 Montford, Mill Valley, CA, 94011, 415/388-4593

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## Touring

Rim Cyclery in Moab, Utah has recently announced the formation of Rim Tours. Moab sits in the heart of Utah's canyon country and Rim Tours was designed to open of the vast mountain biking possibilities that exist in this colorful corner of the country. A wide variety of tours are available, from half-day to multi day. Some options even include a return to town via jet-boat on the Colorado River or, for the more adventurous, a four-day float through Cataract Canyon, considered one of the most spectacular stretches of water on the Colorado. For more information, contact: Rim Tours, 94 W 1st North, Moab, UT, 84532, 801/259-5223

Calypso Excursions is another mountain biking tour operator. Operated by Tom Horton, this newly created company specializes in multi-day tours of New Hampshire and Maine. Adventuring options include such diverse activities as kayaking or even hot air ballooning. Tours are all sag wagon supported. Tom prefers tailoring each tour to best fill the needs and expectations of the riders rather than simply have formula tours to choose amongst. For more information, contact: Calypso Excursions, 12 Federal St, Newburyport, MA, 01950, 617/465-8993

Mountain biking tours are also available in the Northwest through Bed and Breakfast Tours. Sag wagons are included along with country inns and fine dining. Following the trend towards more diversified vacations, rafting trips can also be combined with the cycling. For more information, contact: Bed and Breakfast Tours, 6750 S.W. Scholls Ferry Rd #88, Beaverton, OR, 97005, 503/293-1537

Vermont has long been known as a cycling paradise for road riders. Well, it's equally fine for mountain bikes and now there's a tour company for those so inclined to explore the Green Mountains. Vermont Mountain Bike Tours specializes in day rides through these New England mountains with guests staying at the Pittsfield Inn. For more information, contact Vermont Mountain Bike Tours, PO Box 526, Pittsfield, VT, 05762, 802/746-8943

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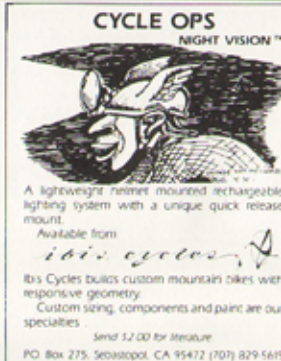


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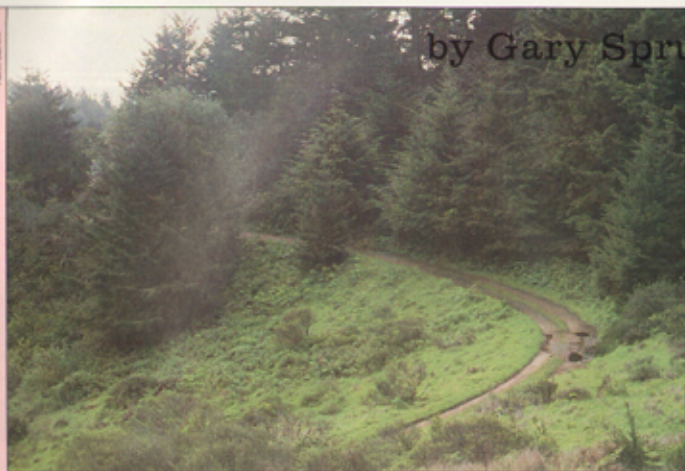
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by Gary Sprung



## Another one bites the dust

When viewed from San Francisco, the cities east of San Francisco Bay appear an unrelenting megalopolis of ship yards, high rises, and rows of homes against a backdrop of deep green hills. Just the thought of cycling through that urban jungle's swirling traffic can be a paralyzing experience. The reality can be worse.

In this instance, relief is spelled East Bay Regional Park District, over 12,000 acres of parklands laced with a veritable maze of trails. This mountain biking paradise spills down off the hills into the closely packed suburbs and cities strung out down the coast. The riding is as fine as any the urban rider will ever find.

The crown jewel is the East Bay Skyline National Recreation Trail, a thirty-one mile route from one end of the park network to the other. Its twisting path offers a dramatic break from the world of motorized transportation lapping at the park's border like a restless sea. The "National" in the title is evidence that the trail's importance to the entire nation has been officially recognized by the U.S. Congress.

The Skyline Trail links together six parks of the East Bay Regional Park District. The system spans open spaces created by the sharp slopes of the Berkeley Hills and the San Pablo Ridge. The trail alternately runs atop the ridges and along the streams flowing between the highlands. Views from the highest points 2,000 feet above sea level provide clear evidence of why so many call this their favorite American metropolis. The

gleaming bay, spanned by elegant bridges, stretches into the distance beneath a azure sky while a sulking bank of fog restlessly lurks offshore beyond the Golden Gate Bridge. On a weekend of wind, the bay is dotted so thickly with sails rushing over the waters, there hardly seems room for the constant stream of cargo ships heading to or from port.

Most of the trail follows fire roads closed to motor vehicles. The broad swaths of the graded pathways are especially easy on novice off-road cyclists so city riders unpracticed on riding over rough terrain can instantly have a fine time. Yet the hills provide plenty of challenge for muscles seeking a workout while the downhill exhilarate with the feel of the wind and the sight of trees and underbrush rushing by. Weekends invariably find dozens of riders huffing and puffing and sweating over their favorite sections.

For a full day ride of the entire trail, the journey best begins in Richmond, the northern anchor of the East Bay cities. A gradual climb up McBride Avenue leads out of the commercial sprawl and through a middle-class neighborhood before abruptly diving into isolated Wildcat Canyon Park. With a giant, erector set power line swaying overhead and continuous rows of homes overlooking the canyon from the hilltops above, Wildcat is definitely no wilderness. But rolling grasslands, complete with grazing cows and bordered by lush eucalyptus trees, and

a low people density transport Wildcat Canyon from just another city park into the realm of the backcountry.

The Skyline Trail turns east away from the creek, follows a side canyon, then climbs over low hills to connect with Nimitz Way, a paved road leading to a deserted Nike missile site. Today, the road is open only to bicyclists, horses, and hikers. If one of your goals is to avoid as much concrete as possible, a better route is via unpaved paths in the valley's lower reaches that later connect to the National route. Not only will the missile site be avoided, the scenery is definitely prettier and the trails less heavily used.

Tilden Park is the next park in the system but it's heavily developed with a merry-go-round, steam train, tennis courts, and golf course. The trail avoids most of the clutter and stays high in the open spaces along San Pablo Ridge. By the southern border of Tilden Park, the Skyline Trail has covered nine miles with only one road crossing.

The route next passes by the parklands of the University of California at Berkeley and through two tiny preserves featuring an extinct volcano and a display of rare and beautiful native plants. Then comes the most splendid stretch, fifteen miles through Tedwood and Anthony Chabot Parks. During those fifteen miles, the trail intersects motor-ways only three times. Both parks have complex trail systems including single tracks that make them suitable for a full day of riding. Second-growth redwood trees dominate

the local ecology, while the shrill cries of seagulls and the calls of songbirds ring through the forest against a sky of altostratus and stratocumulus.

Yet all is not perfect in this outdoor wonderland. Clumps of oak, a history of trail side murders, and the piercing sharp cracks and the zings of ricochets of a rifle range are unfortunately also part of the environment. Prudent riders avoid any bushwacking, never travel here alone, and may carry a Walkman stereo or earplugs.

The trail finally ends on the suburban streets of Hayward, eight miles south of Oakland. The best return to the beginning, or a dinner in the city, is via the Bay Area Rapid Transit (BART). BART's route through the cities parallels the entire trail. In fact, from any of the parks, the nearest station is always just a quick three to five-mile downhill away. With literally dozens of entrances and exits and BART's immediate proximity, you can easily ride any particular section rather than riding the entire trail.

BART may be the best of all the network's advantages. Bicycles are permitted on BART all day on weekends but only during non-rush hours on weekdays. A permit to carry bikes is required by BART but getting one isn't much of a hassle. There's a one-day, one-time-only fee pass available at any station, or you can purchase a three-year pass for

three dollars at the Downtown Oakland BART office. But like any government bureaucracy, BART's rules can change from one month to the next.

Before riding, it's also wise to visit the Park District's office at Redwood Park. Numerous free pamphlets are available with maps of the trail networks, descriptions of the scenery and attractions, and explanations of distances and how much up and down each trail has.

The East Bay Park District includes 41 regional parks totalling 53,000 acres with over 500 miles of trails within. Some of the parks are connected by nine other trails—"linear parklands"—which allow travel through private lands and increase the trail total by 106 miles. Add to this the open spaces of the University, the big watershed preserve owned by the water utility, and a host of undeveloped private lands and the total scope of land available for exploring is tremendous. Bicycles are allowed on every trail and most are unpaved.

That kind of diversity and quantity of parklands makes the East Bay's urban bicycling opportunities hard to beat. Combined with the generally better known riding in Marin County, it's no wonder the Bay Area has had such a tremendous impact on the development of mountain biking.

Editor's note, an obituary of sort: The East Bay Regional Park District is now history for mountain bikers. All the trails and evidently most of the fire roads have been closed to bikes. Reasons are varied but the closure once again stems from the dislike of mountain bikers by a minority of hikers. Unfortunately, though rare in number, the actions of a very few mountain bikers, slightly crazed and jacked up on adrenalin rushes from racing over the trails, have either endangered some hikers or even hit them, thus providing fodder for those advocating our banishment from the East Bay Parks of the country. Mountain bikers carry the onus of always having to refute the constant barrage of charges heaped on our heads by those who are ever ready to find fault. Where others can sin, we must be faultless. And so, once again, we find ourselves ostracized from where we once played.

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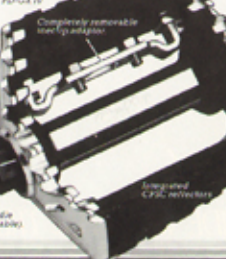
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