

mountain bike

for the adventure

June-July 1985

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Utah Point Reyes Shoes Tents

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Biopace chainrings and 600EX triple crank are designed for popular 157mm bolt pattern.

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New Shimano 600EX utilizes CAD technology for optimal rigidity.

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Computer analysis shows round chainrings force unnatural leg dynamics that interfere with smooth cadence. This creates inefficient application of power and can lead to knee strain.



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SHIMANO SALES CORPORATION 9530 Croycroft Avenue, Chatsworth, CA 91311

mountain bike

for the adventure

Volume 1

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Paul Gallaher



Editor's Note

Hank Barlow

old quickly. Putting in the miles for the sake of conditioning alone is no longer sufficient motivation for me.

Road riding ties me to civilization with an asphalt umbilical cord. The environment through which I pass barely changes, an environment dominated by cars and all the trappings of an automobile addicted society. The surrounding countryside's siren song plays to deaf ears for the highway warrior can no more leave the blacktop than a fish can depart its streambed.

Unless he or she sits astride a mountain bike. If so, the rules of the game are suddenly, irrevocably changed, thrown out the window, forgotten. These wonderful bicycles have opened worlds of adventure, challenge, and excitement to bikers. Wherever a trail, graded road, jeep track, or game trail leads, mountain cyclists can follow.

Forget boredom. The word doesn't exist for mountain bikers. New challenges are constant companions, from pumping up steep, sandy hills to negotiating boulder strewn stream beds to jumping both tires over city curbs in one flowing motion then rapidly cutting through vacant, weed and broken bottle infested lots to your destination. I suppose it's still training except it doesn't feel like training; it's too much fun.

A mountain biker's environment not only is never the same, it's completely foreign to the one he or she lives and works in. Name your tune and you've got it. The desert, no problem. High mountains, no problem either. The beach, goes without saying. Ok, the swamp is out but not by much. Midwestern prairies, Northern Canadian gravel roads, two thousand year old Incan trails, Nepalese trekking trails, and the trackless expanses of the Sahara desert have all felt the tread of fat, knobby bike tires.

From Australia to Norway, adventure has been reinserted into the lexicon of cycling. A mountain bike is a looking glass to worlds previously closed to cyclists. But outweighing all other advantages combined is the peace and quiet that goes hand in hand with mountain bikes. That alone is more valuable to man's psyche than any elixir ever made. Somehow we have to balance the pressures generated by our world's complexity with our needs for physical exertion and moments when our minds are at

...the highway warrior can no more leave the blacktop than a fish can depart its streambed.

rest, simply absorbing the silence of the backcountry.

In an hour or two of hammering over jeep roads and trails, I can get away from home in Crested Butte and the computer that seems to dictate my life to a remote mountain valley where fat trout wait for my first cast of a fly. Or maybe I'll just lay in the sun, surrounded by wilderness and buzzing insects. My brain cells rejuvenated, I'll fly back over the trails, skimming the ground like a hawk at play as I dart around aspens and across meadows of wildflowers until I'm home, ready again to deal with the world. Chances are somewhere along the ride I'll spot some deer or even elk or possibly even a bear. In a few hours time, I will have had a hard, sweaty, exhilarating workout and a transfusion of peace and silence into my overloaded brain. Nothing but my perspective will be different but that's enough.

Sure, not everybody lives in towns like Crested Butte, islands within seas of Forest Service lands. But everyone, everywhere has relatively close to their homes, pockets of wilderness, miniature escapes from societal pressures. Even more numerous are undeveloped lands, national forests, and state forests within a couple of hours drive from any metropolitan area. Mountain bikes have made all these accessible to cyclists and that's what *Mountain Bike* is about: getting away from the everyday world, leaving civilization behind for a few hours, a week, or a month. Mountain biking has the perfect blend of excitement, effort, and setting shared with only a few sports. It's a sport that makes people feel like kids. The bikes are, to quote Don Cook, "youth machines."

Reader Service Cards serve two purposes. One, they're an easy way for you the reader to send for more information about a company's product. If you see an ad that interests you and would like to know more, simply circle the appropriate number on the card and stick it in the envelope. As quickly as possible, you'll receive from that company all the information you wanted.

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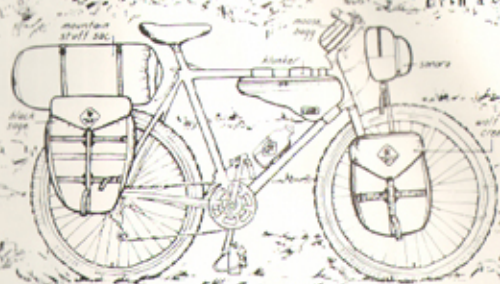
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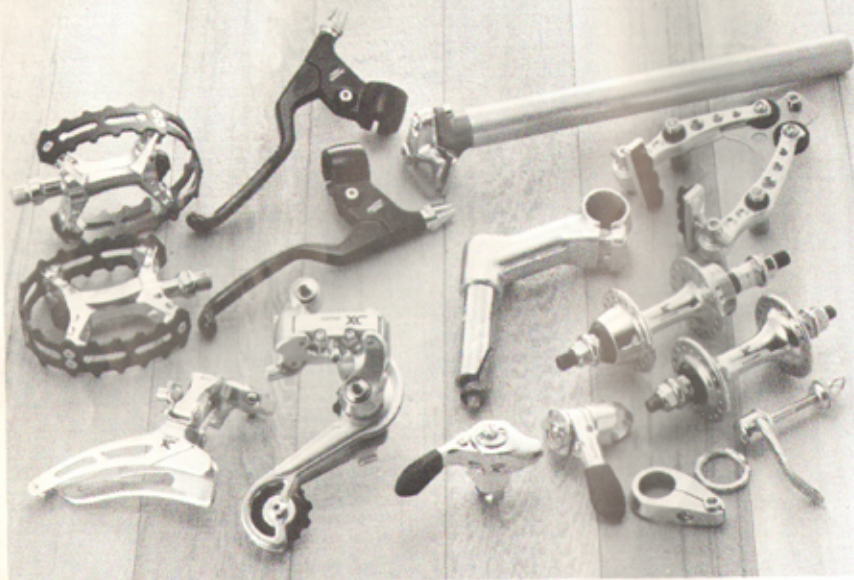
Why another cycling magazine came up time after time during *Mountain Bike*'s formative stages. What could we offer that existing periodicals didn't already have? Good question. The answer: a different perspective.

I love cycling, always have, always will. But road riding's allure has lost much of its affect on me. Too many cars and too many macho drivers' out to prove a point on cyclists though they're not the only reason for my waning enthusiasm. But what that is exactly is difficult to define.

Maybe it's a lack of variety. On highways, the only real challenge, other than avoiding cars, is personal fitness and, to my thinking, training too easily turns into a self-imposed Sisyphean task. No sooner is one level achieved than another beckons then another. It's a never ending quest; there is always another fitness plateau. Is each successive level's experience that much richer? Or am I forever searching for a stronger stimulus for my experiential existence?

Don't get me wrong. I'm not down on training. I get caught up in it every year. I train because I enjoy feeling strong. But pounding the pavement day after day gets

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Fat Times

brought to you by Murdoch



Paul Galtner

minology was used after their demise to differentiate those American workhorses from the waves of new and different bicycles that landed on our shores. The first of that assault was aptly called the "English three-speed." This name readily distinguished the stranger as an import and identified the qualities that made it different from our one speeds.

The most successful thrust was mounted by the ubiquitous "ten-speed." The name continued the trend of identifying the gearing characteristics although the machine differed in many ways. The ten-speed became the bike to have. I remember children who wanted a ten-speed for their birthdays. They didn't quite understand what the name meant but they knew it was the bike with drop bars, the unique characteristic. Any configuration with drop bars would have done as the "in" symbol for bicycle.

The earliest reincarnation of the newspaperboy bike was called Clunker or Cruiser. A Clunker was the rusted, five dollar, secondhand store runabout. (I just heard about this guy in Minnesota with a barn full of Excelsiors and Phantoms!) Cruisers were spiffier relatives of the Clunker. They were most notable as Southern California beach transportation.

When Gary Fisher put derailleurs on his Clunker and biked up the hills as well as

a universal and marketable name for the bicycle, it falls short. Sorry Gary. Mountain Bike does not describe the bike but describes a narrow usage for the bike. Someone came up to me in my booth at the Coor's Classic Expo last year and said, "I don't need a mountain bike, I live in Kansas." He was serious.

I can't get serious about All Terrain Bike. ATB makes me think of powered tricycles and limited usage. I might call my neighborhood "turf" but never terrain.

I believe this bike will be the universal bike of the future. It has the broadest possible applications from mountain tops to city streets. Do you know of an urban messenger service that uses "ten-speeds?" The fat tire bike will free the skinny tire bike for the uses it was designed for, racing and long distance touring on smooth roads. The fat tire bike makes the best use of all other applications.

You may have guessed that Fat Tire Bike is my candidate. Fat Tire Bike describes the common thread and most obvious feature, be they knobby or center stripe, while leaving applications to your imagination. I overheard a tourist remark to his friend, "he has snow tires on his bike" as they walked past me and my knobby tire mount last winter. A Fat Tire Bike can have drop or straight bars, eighteen speeds or one. You know what somebody means when they say Fat Tire Bike. Ballooner is not bad. I always think of Charlie Cunningham's high tech Sculpture when I hear Ballooner.

Rage on. The naming controversy will finally be settled when the Fat Tire Bike is the universal machine and we simply call them "bicycles" again. Meanwhile I'm going for a ride. Hey You!

I've tried calling my bicycle "Hey you" without much acknowledgement.

down, he coined the term Mountain Bike. The rapid expansion of the industry from that point is a remarkable history. The proliferation of names and the attempt to establish a universal nomenclature is equally remarkable.

I unsheath my pencil and leap into the fray. Mountain Bike is a good name for this magazine because it evokes the adventure and excitement inherent in the machine. As

In the early sixties, the Beatles crashed onto the entertainment scene with new music, new antics, and new hairdos. In a free-wheeling television interview one of them, Ringo I think, was asked what he called his hairdo. "Arthur" was the reply.

I've tried calling my bicycle "Hey You" without much acknowledgement. Everyone else has tried to call it Clunker, Cruiser, Ballooner, Mountain Bike, Fat Tire Bike, All Terrain Bike, City Bike, and on and on. (How about a contest to determine all the names that have been applied to our favorite bicycle?)

In the good olde days of my childhood, all two-wheeled conveyances were known by their Latin/Greek derivative: bicycle. There was little distinction in their coaster brake existence save size, age, and amount of chrome. I believe the newspaperboy ter-

Murdoch is director of Fat Tire Bike Week and the Pearl Pass Tour, an annual event every September in Crested Butte, Colorado.

Mark Slate

Where and how you ride dictates tire choice.

the blocks' ability to dig into the ground. The spacing and positioning of tread blocks on 2.125 tires seems better for control than the scaled down pattern used on smaller tires. The cross-sectional radius of 2.125 tires allows more contact with the ground, hence superior control. These features can and will eventually be built into smaller cross-section tires.

Most of the time, tires roll in a vertical or near vertical position. The center tread blocks must correlate with blocks used for cornering. Normally there is only one edge in the critical lean plane (70 to 55 degrees.) Thirty degrees from upright seems to be the fall-off point on level dirt, depending on the bike's geometry and weight bias. Body english can compensate but if the terrain is multi level or rutted, an extra edge can help. Many tires have blocks much farther over than necessary for cornering, mostly for sales appeal. Their only real use is to protect the sidewall from sharp rocks.

A lot of good tires are available but the ideal tire for all around high performance does not yet exist. The lighter weight of 1.75 tires makes them attractive for competition but one flat eliminates that advantage. A tire size between 1.75 and 2.125 could compromise the trade-offs between weight, vulnerability to flats, and inadequate contact. Such mid-sized tires are beginning to appear. A profile (tread contact arc) greater than the casing size is possible by making the center tread blocks shorter than the outer cornering knobs. This allows more contact with smaller casings. Look at the contour of a well worn tire and you'll see what I mean. The tire corners better but at the expense of braking.

The ideal casing size has existed since the first, high performance balloon tire hit the market. The Snake Belly was introduced in mid-1980 and had a light, supple casing slightly less than two inches in cross section. The tread block spacing leaves much to be desired but the tire is preferred by many experienced riders, presumably for its size. Advantages of a smaller cross-section are increased chain stay clearance and a lighter rotating mass.

An important difference between sizes is air volume. A smaller tire needs higher pressure to prevent punctures. Increased air pressure makes handling in the rough more demanding with a subsequent reduction in braking traction, especially on steep, rugged descents. Ascending is easier except per-

haps in slow, technical climbs where every bit of grip is needed to keep moving. In this situation, the larger tire has the advantage.

The reduced rolling resistance of high pressure tires coupled with less rotating mass make skinny tires attractive for long rides, especially when the terrain is relatively smooth. But a bike's primary shock absorption system is the tires and high air volume tires provide the cushioning desired on rough terrain. Tires with a continuous ridge down the middle gain rolling ease on pavements but at the expense of less traction in the rough. These tires, known as dual purpose, are a compromise attempting to satisfy opposing criteria.

Many a mountain bike seldom sees off-road use so high performance dirt tires are hardly necessary in such cases. Each combination of bike, rider, terrain ridden, and intensity of use requires a different type of tire. The tire used by the local hot shot mountain biker is not necessarily suited for you. If ninety percent of your riding will be around town on pavement, buy tires accordingly: skinny, low volume, high pressure models designed for the highway. You'll love them on the street while their performance will be adequate during that ten percent when you're off road.

When considering new tires, be honest about your intended use then look at size and tread design accordingly. It's rarely possible to test every tire, except analytically, and no shop carries every tire made. What a shop carries and uses is what the personnel believe in. Ask them why. Then test what they recommend. Keep an open mind. New tire designs and sizes are constantly being introduced. These new tires are theoretically better otherwise the manufacturers wouldn't have gone to the trouble and expense of redesigning. But unless you try them yourself, you won't know if they're an improvement or not.

There is always something new to try in mountain biking. Technology is moving fast and improvements are constant. What today you swear is the best for your needs won't necessarily be the case a year from now, both because of technology advances and even more because of your improved riding skills. Your best bet is to keep a few different models on hand. Changing tires is a quick enough chore so there's really no need to suffer with a set of tires ill suited to the day's riding. Better yet is to have two sets of wheels with quick release hubs, one set for those times when low volume, high pressure tires are best and one set with fat tires for rough terrain.

Slickrock!

Story and photos
by Richard Compton

Endless stretches of sand may be the most wearing and boring terrain a desert rider can encounter but a hundred feet of it as you come swooping down off a turtleback is just so much slithery fun.





What swimming pools are to skaters and deep powder is to skiers, slickrock is to mountain bikers: the Ultimate Ride. Not necessarily the most challenging or exotic, just the most screaming fun. Slickrock is a generic Western term for any expanse of smooth, wind and water polished rock, invariably sandstone. Usually it is found on desert plateaus and canyon rims where the views out, down, or up provide the spectacular backdrop necessary for memorable rides: like looking straight down a five hundred foot cliff at the Colorado River or out at snowcapped peaks jutting into a crystalline sky.

Cycling over virgin rock, unscarred by wheel ruts or boot heels, with only an occasional skidmark or pedal ding marring its primeval form, is vastly more satisfying than traveling on pavement or trail. One gets the full feel of the country in all its forms and texture without restructuring it in the process. Only sand in the washes bears the mark of human passage and one good rain will erase that.

On the popular Slickrock Bike Trail near Moab, Utah, a few roots have been exposed and an ugly trench cut through the rocky soil of a gully but the very hardness of the land that makes it inhospitable for human habitation also allows it to endure, and even to enhance, our pleasure.

A uranium boomtown gone somewhat to seed, Moab survives as a combination

tourist haven and truckstop with a potash mine and a little agriculture on the side. It is quiet, friendly, and cheap with enough riding nearby to keep a mountain biker occupied fulltime. The Slickrock Bike Trail is Moab's nearest and most unique ride, a twelve mile loop over Navajo Sandstone along a canyon rim 500 feet above the Colorado River. Directly across the river from the trail are the domes and towers of Arches National Park while a few miles to the east rise the 13,000 foot peaks of the Manti-LaSal Mountains.

The Navajo is not your standard red bed laid down in neat, regular strata and eroded into equally regular masses. Rather it's a beach-colored aeolian deposit - fossilized sand dunes. As it erodes, it reverts to something like its original form: an endless variety of wind-smoothed humps and hollows, twists and turns. Winding through this lunar landscape, apparently at random, is a line of widely spaced blazes of white paint marking the Slickrock Trail. Originally laid out by the Bureau of Land Management for motorcross riders, it now receives as much or more use from off-road cyclists than motorcyclists.

The main trail is only twelve miles but don't be deceived; it's a good day's workout for any but the most trail hardened riders. Short, stiff climbs are followed, often immediately, by full brake, butt-on-the-rear wheel drop-offs ending abruptly in a sand trap or

sharp transition into another climb. Few climbs or descents exceed fifty feet but they can quickly add up to several thousand feet of elevation change during the loop, a goodly proportion of it accomplished out of the saddle, with plenty of dismounts and remounts thrown in.

Riding the Slickrock Trail demands a light touch and quick, sure handling. If you haven't got it at the start, you will by the end. The constant repeating of the same basic maneuvers guarantees a fast education. Endless stretches of sand may be the most wearing and boring terrain a desert rider can encounter but a hundred feet of it as you come swooping down off a turtleback is just so much slithery fun. And bumping up out of the sand onto a long, snaky ridge is a worthy challenge. If you don't make it, no sweat; it's only fifty feet to the next terrain change.

The climbing is likewise a set of discrete challenges rather than one drawn out grind. Some are simple, others virtually impossible while most allow for a variety of attacks from angling up seeking a mellow line or powering straight up. A few seconds, at most a minute, and it's over. Idle along the flat to catch your breath then look out for the next thrill: a little pothole slalom, a fast swoosh across gentle rolls, then maybe a quick screech down into a sandtrap with a ninety degree turn around a cactus. But don't start thinking all the ride is like this. It isn't; about half the time you can sit easy in the saddle





and enjoy the view

Spills are possible but wholly unnecessary and anyone who is reasonably fit and not too timid will enjoy the Slickrock Trail. It's ideal for parties of mixed ability. While the slower riders carefully pick their way

along, pushing their bikes past hard spots, the stronger ones can wander off the trail in search of more excitement or stick around and have a few goes at problems that strike their fancy. It's a playground for everyone from novice to trial's champion.

Bring a lunch along for a picnic on the canyon rim. The trail first meets the rim about a third of the way along then wanders away and back again, finally leaving it for good about the halfway point. This is also the low point of the trail. From there it climbs several hundred feet over the next two miles to the crest of a long rib providing fast, easy riding and great views of the mountains.

It's then a roller coaster ride to the end of the loop and the one and half mile trail connecting the loop to the county road. Bring plenty of liquid as there is no potable water along the trail and precious little shade. Shrubs, grasses and pinyon dot the landscape but do little more than relieve the unbroken expanse of rock and occasionally get in the way. Two rainwater pools are on the rim near Shrimp Rock, a prominent little butte of softer stone named for the fairy shrimp inhabiting the pools. During dry spells, they encyst themselves in the mud, reappearing after a rain.

For those who haven't had enough after that, there's a two and a half mile practice loop near the start (put there for motocross riders to test themselves on before getting into trouble out in the boonies) and several short spurts to scenic overlooks. (That is if

you consider a potash mine slime pit "scenic".)

The trail is rideable year round, only on the hottest days of summer and during winter storms is it out of the question. But snow melts off quickly and the ground dries almost instantly so a few days after a storm, the trail is once again rideable.

To reach the trail from Route 191 (Main Street, Moab,) turn east on 300 South St., then south on 400 East, then left (east) on Sand Flats Road behind Milt's Diner and the Gofer Store. After passing a cemetery and the BLM offices, climb several steep switchbacks to the city dump and the end of the pavement. The road soon switchbacks sharply to the right and climbs up to the level of the plateau. Once there, it turns sharply left and heads north in a long, rolling straight. The Slickrock Trail starts where the road bends east again into sandier country. A government sign (which you can easily miss as you drive by) marks the start of the trail, a narrow gate in the barbed wire fence. From town to trailhead is three miles.

Decent maps of the trail can be found at Park Service Headquarters or BLM offices downtown. Friendly information and good gear are available at the Rim Cyclery.

NATIONAL OFF-ROAD BICYCLE ASSOCIATION

2175 Holly Lane • Solvang, CA 93463
(805) 688-2325

Dear Bicycle Enthusiast,

We are pleased to introduce you to the **National Off-Road Bicycle Association (NORBA)**. The NORBA was formed in January 1983 to help direct the growth of this new facet of bicycling in a responsible and organized manner. We are now joined with Dealers and Industry Members across the nation to educate the new off-road cycling enthusiasts concerning their rights and responsibilities as they venture into the exciting realm of all-terrain bicycle travel. This information is made available through the monthly newsletter **NORBA NEWS**, which also contains a nationwide race and tour calendar and a Dealer directory.

The NORBA functions as the national advocate on behalf of off-road cycling enthusiasts nationwide, to public land managers and recreation use planners. One of the major concerns of NORBA is the continued access and enjoyment of public lands by all outdoor enthusiasts. NORBA is aware of the environmental aspects of off-road cycling and encourages responsible use of public resources by bicyclists. We encourage the maintenance of, and access to, trails appropriate for the use of bicycles.

Your membership in **NORBA** will help establish a credible user group that public land managers and legislators will respond to.

NORBA is the national sanctioning organization of off-road bicycle racing, providing liability coverage with a one million dollar policy for races and tours held by Dealers, Clubs, or Individual Members. By supporting competition, the Association will help improve technical aspects of off-road bicycles to the benefit of all bicyclists.

The **NORBA** also provides individual members with \$7500 of insurance coverage effective 24 hours a day - anytime bicycling.

We encourage you to join us in shaping the future of this exciting new sport...

Thank you,

Glenn Odell
President

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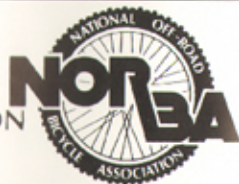
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Riding the Point

by Michael Castelli

Photos courtesy of
Pt. Reyes Bikes archives



A line of riders, a hill, a problem, a trail, we didn't know. Question after question, test after test. A group of friends or soon to be. A grade, climbing the ridge, along the ocean. A Gordian Knot to solve. A trail into the wilderness. Exploring Pt. Reyes, exploring ourselves.

The gears were clicking, short steep made the spokes crick, like wrens in the ferns lining the trail. The riders sailed along silently, slowly shaking the morning cotton from their heads, heading for the mist on the ridge.

Riders climbing the Inverness Ridge, the spit of land tenuously separating Pacific Ocean and Tomales Bay. Riders climbing the bulge of granite pushed up by friction from the Pacific Plate sliding under the Continental Plate. Ancient granite that started its northern journey somewhere south of LA. The ridge parallels the San Andreas Fault. Climbing up into the Bishop Pine forest, trees found in so few other places that this "Island in Time" has armies of friends enforcing their protection.

The Bishops silently watch as we riders pass by, ephemeral beings, passing in much the same way that the Grey Whales pass the shores of Point Reyes. Riders passing, temporary beings with lightning metabolism when seen in contrast to the permanence of this special ground. Riders saying goodbye to places they have come to know and love. Riders soon to be excluded from this ground.

We race for the top. Racing for the fun of it. Racing for a glimpse of the ocean. Riders in full sweat. Some in small groups speaking to one another. Some individually attacking the grade as though it was a personal adversary. Some unable to speak from the effort at hand, heads lowered, spirits rising, grabbing low gears, sit and spin. The picture getting clearer, the view becoming blurred by the salt that we give to the effort.

This ridge we climb has long been a Mecca for those seeking a wilderness experience. Teddy Roosevelt came here to hunt with his cronies for the then abundant game. They traveled out on the North West Pacific Railroad, delivered to the little water stop of Olema (still a watering-hole today,) and from there went the last five miles by horseback to the hunting camp, now called Divide Meadows, over in Bear Valley. Would that the bears were still here!

Now visitors come to Point Reyes National Seashore to visit the deserted lighthouse, view the migrating Grey Whales, or roam the beaches. Some visitors are here to experience the solitude of the designated "Wilderness Area," without a doubt the "signature" of the park (there is presently a debate about whether to name the wilderness area after the late Philip Burton, author of the legislation that initiated the Seashore.) Remnants of old ranches dot the Seashore while worn ranch roads still crisscross the meadows. Indeed, some of the ranchers are still here playing out their Park Service lifetime family leases.

The mists that inhabit the ridge are special, alternately cooling riders and granting

views of Drakes Bay. They collect in the branches of the Bishops and rain down, mist and trees, a forest of concerns. The top comes with unexpected suddenness. The hook of Drakes Bay is visible beyond the riders. Forty miles to the South, just a hint of San Francisco, the behemoth that supports the local economy and threatens to destroy this iron that more than once has had to be pulled from the development fire. Symbiosis or parasitic, a relationship still in question.

Finger ridges gambol down to the water's edge. The trees stay up here on the ridge to avoid the strong salt influence of the bay or maybe to enjoy the regal view. The unfor- forested finger ridges are the home of White Deer, once imported by hunting clubs, the old guard, the old way. White Deer are not albino; they have pigmented eyes. Different, this ridge. Further to the north Tule Elk, re-introduced by the Park Service, are held at bay by a fence spanning the peninsula.

So the road up becomes a trail down. Narrow and rutted by years of use and little maintenance. Winding out along the ridge then down toward the ocean. Thick forest, low light, roots, little drops demanding attention. Ferns and huckleberry, mental note to come back in late summer for a snack. The riding is demanding, but there are effortless sections that become surreal. Adrenaline and oxygen. Narrow concentration, tunnel vision, bugs on the teeth. The

Forty miles to the South, just a hint of San Francisco, the behemoth that supports the local economy and threatens to destroy this iron that more than once has had to be pulled from the development fire.

chill rush of December air, the clear warmth of a December sun. Out of the forest and into the coastal scrub that climbs the finger ridges. Coyote Brush, Bush Lupine, clump grasses, a few Iris's too impatient to wait for spring. A glimpse of a wildcat, hopes of seeing one of the few mountain lion still rumored to inhabit the ancient coastal wave cut terraces.

The beach always comes too soon. The bottom of the trail. The beaches in the south end of the Park are small pockets, unlike the vast expanse of "12 Mile Beach" and some of the others on the north end. Down to Wildcat Camp, one of four wilderness area camps in the National Seashore. Today the Ranger is mowing the grass around the picnic tables by the out-houses with his diesel tractor; what is wrong with this picture?

The tide pooling around the base of the cliffs is some of the best to be had. Poke-pole fisherman sometimes ply the rock outcrops for Rock Cod and Cephalopods, braving the tides and unsure footing for these delicacy fish. Access to these little known spots is easier for the mountain biker. High energy beaches, all the ecological life zones are compressed by the steepness of the terrain. Large rogue waves are a constant threat on an unwary beach-comber. The bears are gone, but the place is by no means tame. Just the usual small rollers today, hold-

ing the local seal population juxtaposed against the sky for our approval. The Great White Sharks inhabiting these waters approve also. The tip of Pierce Point to the north is their only known breeding ground in the California coast. Pierce Point, the mouth of Tomales Bay, low laying log, and the mythical Sneaker Waves, but that is another story.

The climb back over the Ridge is the biggest hill in the Park, Stewart Trail over Firtop. A good place to burn up any unused calories. Twelve hundred feet of elevation gain in two and a half miles. The only path through the Ridge without a climb is Bear Valley Trail five miles to the north, the path of least resistance. Riding over this part of the ridge is difficult but the scale of the park is not great. The return to higher elevation takes only 45 minutes. The entire loop can be done in a couple of hours without pushing, leaving most of the riding day for side trips or activities other than cycling. The ride back down Stewart Trail is pure enjoyment, smooth dirt road, too easy. Back to the parking lot, back to the day to day.

Socializing at the trailhead after the ride is an art: commiserating with exhausted friends, trying to look fresh and sound witty when all systems are drained. Return to town is a welcome reward, pizza and beer, who cares, you choose. The importance of recharging one's mental batteries is really

why we come here, the true importance of wilderness experience, the shedding of the usual grind. Going to the woods to see what still remains untouched by the developments of man. Mountain biking at its finest.

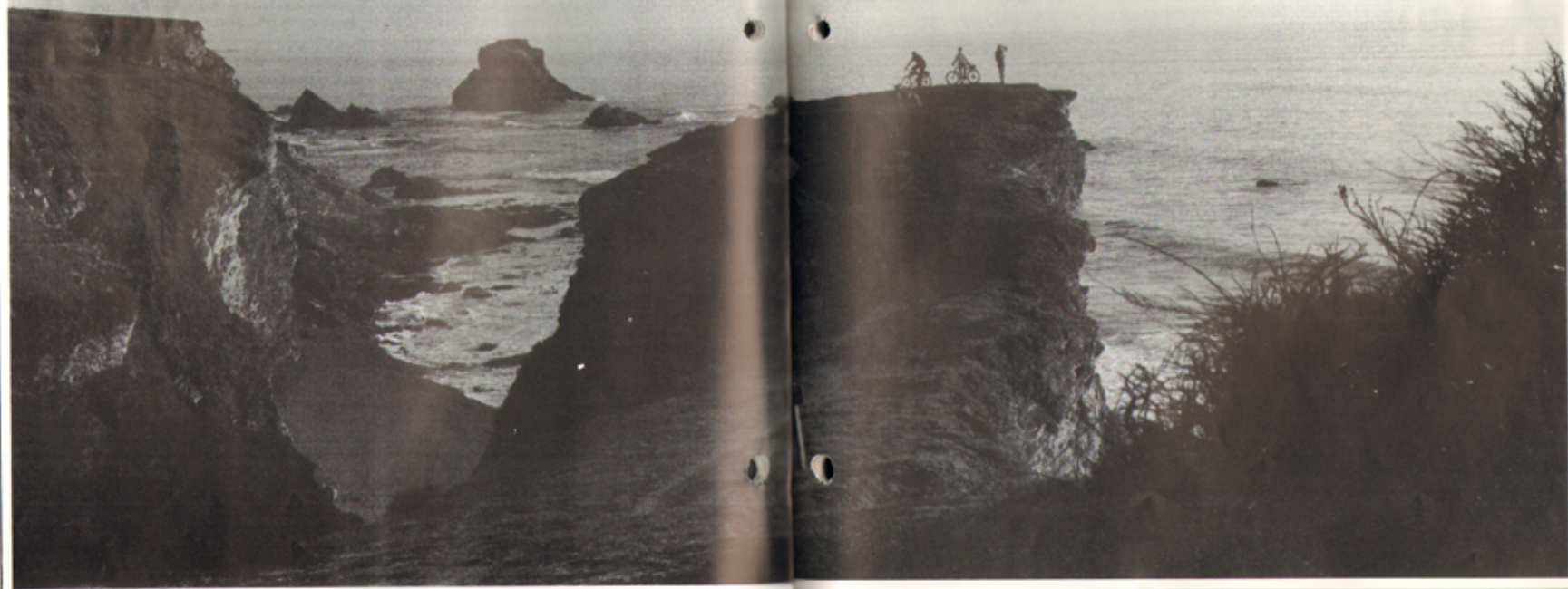
Point Reyes National Seashore has a variety of rides that can take from 45 minutes to multi day. The wilderness camps (Wildcat, Coast, Sky, and Glen Camps) are all accessible to cyclists and hikers but not motor vehicles. In fact, no car camping is available in the National Seashore so a visit can't include the common late night arrival and obligatory trailhead crashing. An hour will usually suffice for driving from San Francisco. Local accommodations are best had by staying in the nearby Bed and Breakfast establishments in the towns of Olema, Point Reyes, Inverness, and Inverness Park.

Mountain bike sales and rentals, parts, and service are available at Point Reyes Bikes (415-663-1768), the only bike shop within 20 miles of the Park. Overnight camping in the Park is arranged by contacting Seashore headquarters (415-663-1092) for mandatory reservations. The most isolated camping is at Glen Camp, at higher elevations. Remote oceanside camping is available at Wildcat Camp; its access requires the most elevation loss/gain. The best beach access is from Coast Camp.

Cycle tourists may arrange camping at the Tomales Bay State Park bike-hike camp-

Narrow concentration, tunnel vision, bugs on the teeth. The chill rush of December air, the clear warmth of a December sun.

ground (415-669-1140.) This site has the warmest swimming and puts the northern section of the park within easy reach. The State Park does not have a wilderness camp and you'll have to share day-use with motorists who depart at sunset. Water is available at all the wilderness camps but the oceanside camp water is high in iron/sulfide.



Fat Tires in the Wilderness

by Marshall Livingston



ALWAYS MINIMIZE YOUR IMPACT

Point Reyes Bikes archives

The quality of wilderness experience on a bicycle, the efficiency and negligible physical impact are misunderstood by our honorable adversaries. You might say "we are the new kid on the block."

In its infancy, mountain bicycling received little notice by others using the trail systems of our public lands. The increased popularity of off-road bikes in the last few years has created friction between the various members of the trail family. There is growing opposition to bicycle use on trails from many environmentalists and wilderness preservationists, though most mountain cyclists would include themselves in these categories. The quality of wilderness experience on a bicycle, the efficiency and negligible physical impact are misunderstood by our honorable adversaries. You might say "we are the new kid on the block."

Mountain bikes have been popular for many years in the Point Reyes National Seashore and have created an impressive record of conduct. The Park Service estimates bicycle use to be around 300 to 400 users per week. There is no record of accidents involving bikes and no negative impact on trail maintenance. Even so, complaints from other trail users began to trickle into park headquarters. Most complaints were aimed at the mechanical nature of the bikes rather than misconduct.

In the summer of 1984, a clause in the Wilderness Act of 1964 was brought to the attention of the park administrators. The Wilderness Act [16 U.S.C. 1133(C)] states "... there shall be ... no use of motor vehicles, motorized equipment or motorboats, no landing of aircraft, no other form of mechanical transport ... within any such area." The Park Service requested clarification from

headquarters in Washington on this clause as it applied to bicycles and received a reply stating that bicycles should be considered "mechanical transport." The Park Service then announced the closure of all trails within the Point Reyes Wilderness Area to bikes.

The response from mountain bikers was immediate. A petition demanding public hearings before closure was circulated and over 2,000 signatures collected. The Park Service put the issue before the Golden Gate National Recreation Area and the Point Reyes National Seashore Advisory Commission at public hearing in Point Reyes Station on September 29, 1984. Over thirty people spoke in favor of bike use, a handful in opposition. Sections of the Wilderness Act were quoted such as, "Within wilderness areas designated by this Act the use of aircraft or motorboats, where these uses have already become established, may be permitted to continue ..." and from the Code of Federal Regulations, section 293.6(A) defining mechanical transport as "any contrivance ... propelled by a non-living power source."

At this point it became clear the Wilderness Act did not effectively deal with the issue of bicycles on trails. It is unlikely bikes were even considered when the Act was compiled since mountain bikes did not exist in 1964. The Advisory Commission requested an opinion from the Solicitor General of the National Park Service. His reply asked the Advisory Commission to



further review the issue.

At this point, environmental organizations took up the issue. Although there was dissent within, most organizations took a stance in opposition to bicycles in wilderness without possibility of compromise. They feared any compromise would weaken the Act unfavorably. Others felt bicycles

should be allowed on designated trails within the wilderness area because of their compatibility to the area and their historic presence.

The Point Reyes Wilderness was established in 1976 on 24,200 acres where previously working ranches and vacation homes existed. Some "wilderness" trails are still paved. Numerous compromises have already been allowed to accommodate the adjacent San Francisco urban area.

At the date of this writing, no signs prohibiting bicycles have appeared and there has been no enforcement of the trail closure. The Advisory Commission is forming a trails committee to study the issue and make recommendations. It may be a long time before this issue is settled and it is up to wilderness cyclists to work toward becoming an accepted and respected member of the trail family and to communicate their thoughts to the respective governing bodies.

While riding on public lands, remember that others are using the area for recreation too and that bicycles are still an unexpected occurrence on the trail. So:

YIELD - always yield to the passage of hikers and folks on horseback, even if at times it seems inconvenient.

PASSING - when overtaking others, let them know of your presence well in advance of passing. This is especially important with horses. Each horse will react differently to

the sight of riders without four feet. In some cases it may be necessary to actually dismount and lift your bike off the trail to allow passage on narrow trail sections.

EROSION - wet conditions can soften the ground to the point where lasting tracks are produced. Avoid these areas. During rainy weather some trails should not be used.

STAY ON TRAILS - try to minimize your impact; never ride off of established trails.

LIVESTOCK - animals may need a few moments to wander off the trail; allow them time to move a comfortable distance before passing.

SPEED - safe speeds are relative to terrain and your riding ability. Assume others are just around the corner.

FILE A FLIGHT PLAN - let someone know where you are going and when you will return.

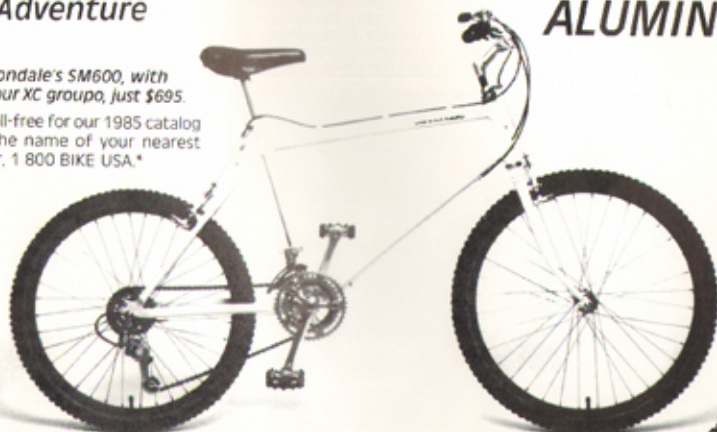
DON'T LITTER - pack out what you pack in plus some more if there's room.

REMEMBER that biking on public lands is in its infancy and that courtesy will assure lasting acceptance. For more information on mountain biking, call or write: Point Reyes Bikes, PO Box 362, 11431 Highway One, Point Reyes, CA 94956, 415/663-1768.

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Joe Breeze

by Ernst Pedlar

Joe Breeze believes bicycles offer a viable, alternative means of transportation. They're non-polluting, healthy, quiet, and fast, especially around town where traffic is often backed up for blocks at a time while harried drivers search for parking spaces. He doesn't advocate people replacing their cars with bikes; rather that bikes complement existing modes of transportation.

Anyone who has ever been in Marin County, California, Joe's home, will immediately appreciate his sentiments. The narrow valleys and steep hills constrict the flow of people from town to town. Traffic jams during rush hour can be maddening. I've on occasion been caught in that traffic, frustratingly inching my way along bumper to bumper while cyclist after cyclist whizzed by and disappeared into the distance. If I'd had my bike with me, I'd have parked the car and ridden the rest of the way.

Joe certainly isn't alone in his advocacy. There was a wonderful picture, in *Cyclist Magazine*, I believe, of Canadian cyclists protesting the lack of consideration by the government for bicycling commuters. Their method of protest was riding down the street with box frames the size of an auto's outline suspended from their shoulders to demonstrate the space a car takes up versus the space a cyclist takes up.

What does all this have to do with Joe Breeze, the builder of beautifully crafted mountain bikes, holder of the second fastest time on the infamous Repack downhill, and the first to build production mountain bikes before mountain bikes even existed? Everything.

Joe's involvement with mountain bikes was accidental. What he was really interest-

ed in was telling the world about bikes and what an efficient way they are to get around. The problem that confronted him was that most people don't like riding skinny tired, drop bar road bikes. The bikes were uncomfortable, hard to ride, and always getting flats. They usually ended up hanging upside down in garages, high tech spider webs under the eaves.

Joe was a bike racer and had no problem with skinny tired, drop bar road bikes. As far as he was concerned, they were the only bike in the world to ride. Anyone who couldn't see that was suffering from myopia and was totally incapable of seeing into the future. Not only did he race bikes, he raced bikes of his own manufacture. He began racing in 1970 and worked up through the ranks to the Category I classification he maintained for five years until retiring in 1979. From 1974 on, after taking a frame building class at Berkeley under Albert Eisentraut, he raced on bikes he built himself. Production was limited and most of those were bought by other racers.

Juxtaposed to his building high tech racing bikes was an abiding interest in bikes from the late 1800's. The workmanship was incredible but even more importantly to his thinking were the technological developments introduced by bike builders. At a time when bikes are generally thought of as toys, it's easy to forget that in the late 1800's and early 1900's, bicycles provided transportation for the urban masses. Only the wealthy could afford horses and carriages. Tremendous innovative thinking was consequently focused on bicycles. Many of those early ideas were incorporated into manufacturing methods, ideas that today are taken for

granted such as ball bearings and chain drives.

According to Joe, there isn't a bicycle or component idea that hasn't already been used long ago. Today's materials and technology are far advanced over what was used then but the ideas themselves were tried in the 1890's and early 1900's. Many of the most brilliant inventors of the time were in the bicycle industry, people like the Wright Brothers. Bicycles have a rich and varied history that too few are aware of. Few people have any idea at all that cyclists rode across the country 80 years ago.

Unfortunately most of the bicycle development work was lost after the introduction of the internal combustion engine. Who knows what might have developed had that not been the case. Bicycle engineers were even working on direct drives.

Those were the bikes that interested Joe. Not because he was thinking about off road cycling. Not at all, he was a hard core skinny tired bike rider. Joe wanted to restore those old bikes so people could appreciate bicycling's tremendous heritage.

In pursuit of that dream, he was forever haunting bike shops whenever possible, searching through junk piles and hidden corners for old bikes. A fellow competitor often accompanied Joe on his bike shop forays. He had a Schwinn Excelsior that he'd fixed up and he finally talked Joe into taking it out for a spin. Joe liked it; it was fun, an agreeable change from his racing bike. During a trip to Santa Cruz, Joe bought a '41 Schwinn Excelsior for \$5.

He took it home, scrapped the paint down to the original blue and ivory, fixed it up, and was soon screaming down the Mt. Tamalpais fire roads. He started collecting old Schwinn's and fixing them up. Friends would come by, borrow one, like it, and want to buy it. The bikes were always stock. He used original parts if at all possible. He even had an original Schwinn cantilever front brake on his. (Yes, they had cantilever brakes in the 1930's.) The only modification he was willing to do, and that was only after much soul searching, was to replace the coke bottle handles with flanged grips. He got tired of mashing his fingers with the hand brake.

Little did Joe know what his hobby would lead to. He was still into skinny tired race bikes but watching the reactions of people who rode his fixed up Schwinn's made him see the advantages of fat tires, flat handlebars, and upright seating positions. A seed was planted in fertile ground.

Charlie Kelly started bugging Joe to build a clunker from scratch out of chrome-moly tubing. Charlie had already talked someone else into building one but the results had not been what they wanted.

Joe reluctantly accepted the mission.

His model was the Schwinn Excelsior X, built from 1935 to 1942. That was not an arbitrary decision. Anyone who has talked to Joe at any length or has seen one of his nickle plated mountain bikes would know that every act of his is consciously thought out. The Excelsior X was chosen because its performance was judged the best and because its geometry made sense.

His objective was a bike that could be raced down the hills but would go up just as easily. He started with what he knew worked. From there, changes could be made later. The story of his first twin lateral mountain bikes has been told too many times already. Suffice it to say it was a roaring success.

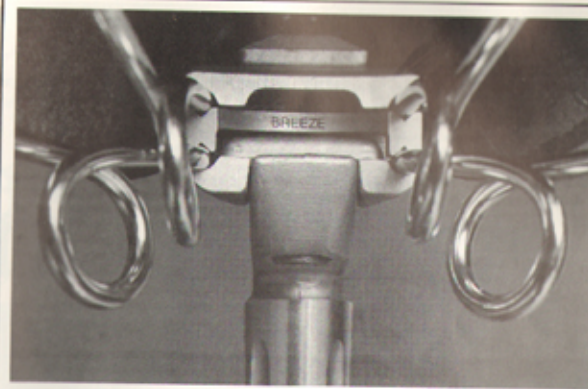
He didn't build the bikes with the intention of starting an industry but he had a gut feeling he was onto something. The longer he worked on the bikes, the stronger the feeling became. After friends rode the finished bikes, he knew he was. People who weren't interested in bikes because they didn't like skinny tired 10-speeds immediately loved the bikes. They were great, easy to ride, comfortable, and durable. No more flat tire headaches.

Contrary to what many people claim, he knew the first batch of bikes would lead to more. He studied his efforts, calculated tube weights and strengths, and was soon modifying his original design. The twin laterals were dropped. He could achieve the same strength and stiffness with a single, larger diameter, thicker-walled down tube and thicker-walled chain stays, saving 3/4 of a pound. He also ended up changing the head tube angle to 70 degrees because after more testing, he felt the Schwinn DX with its parallel 70 degree angles handled better. It also made sense to his analytical mind.

The key in all this was Joe's ability to ferret out of the past the ideas that would prove effective. The ideas had been around for years but not every idea was a good one. Selecting what would work and what wouldn't was the problem.

As good as this new breed of bikes were, Joe still believed in the superiority of road bikes on the road. A 1,000 mile cycling tour of New Zealand with Steve Potts changed that. They took Joe's mountain bikes only because they hoped to ride some of New Zealand's famous hiking trails. They were willing to sacrifice road speed for the ability to follow the dirt. But it wasn't long before Joe discovered his new bikes were better than road bikes for loaded touring. In a thousand miles of cycling with bulging panniers, including for a period of time two girls and their gear, one on each bike perched on top of the handle bars on makeshift saddles, Joe and Steve had not one flat tire and no mechanical problems! The bikes stood up to all the use and abuse they were subjected to.

They rode the islands from one end to the other. Some days they rode a hundred miles. Others they barely moved. They spent three days on the Routeburn Track, one of the best known New Zealand trails. They also tackled the Greenstone Track



Mush Emmons

only to find some of the most challenging riding and bike pushing of the trip. But what impressed Joe the most throughout the trip wasn't their bikes; it was the people and the land. What impressed the New Zealanders the most were those amazing bikes Joe and Steve were riding, the first mountain bikes ever seen in the country.

Joe has since discovered how much slower a mountain bike is than a road bike. Near his home in Marin County is a long loop, good for an hour's ride. Riding his mountain bike with Panaracer 2.125 tires with a raised center ridge and pumped up to 70 lbs of pressure, the ride takes three minutes longer than on his road racing bike! The impression he returned from New Zealand with was proved.

The conclusion that mountain bikes are superior for loaded touring was a 180 degree change of opinion for him. The evidence was overwhelming. They were more comfortable, more reliable, and much more versatile. That last word is key to understanding Joe's bikes. The same bike that he rides loaded to the gills with touring gear, he rides in mountain bike races and trials events. What road rider can make the same statement?

Another key to Joe's bikes is his riding style, a tricky subject for him. He's an exceptionally fast rider and loves to blast down trails on the edge of control. Except that's not exactly the truth. He's not blasting down trails on the edge of control. He's riding through obstacles, and turns can certainly be considered obstacles, as fast as he can while maintaining relative control. He's dancing on the edge, an edge where a mistake can quickly become catastrophic. But to dance on the edge requires tremendous discipline. Just as playing the most complicated fugue can only be accomplished after seemingly lifetimes of practice

learning control, so too does riding fast on a mountain bike require exemplary skills. That's true for any sport exercised at the highest levels of performance.

The problem with doing so on a mountain bike is that the stage is a public stage. Mountain bikers are not alone. Not every one is enthralled with mountain bikes in the backcountry. To suddenly have someone come roaring around a turn, clouds of dust billowing behind, and have to leap to the side to avoid being impaled does not create legends of mountain biking fans.

Responsibility is the answer in Joe's mind. Part of the problem lies in that shadowy world of perception. Even if Joe is in control, the biker's perception of him will no doubt be that Joe is out of control and recklessly endangering everyone on the trail. That perception gap exists partially because of lack of understanding. The fact is that the average person never dances on the edge. Therefore he or she has no idea that the state exists.

But that lack of understanding is as true for the cyclist as it is for the hiker. Joe believes cyclists have to understand hikers' motives for being in the backcountry. Those motives are no different than Joe's and most other backcountry cyclists: to get outdoors and enjoy the peace and silence, the wildflowers and wildlife, to get away from the hectic everyday life of modern society. A pack of mountain bikers rushing down a trail dramatically interrupts any reverie the hiker, or even a slow moving cyclist for that matter, may have been experiencing.

Joe's sense of responsibility dictates not interfering with others' space by slowing down to their standards. His bottom line motive for mountain cycling is simply being outdoors so slowing down isn't a hardship. Too great a focus on blasting down trails



Alba Vasconcelos

completely negates the value of riding in the backcountry. He feels there has to be a balance between full blown, gonzo riding and leisurely rides where the surroundings take precedence over the ride. The bike becomes just another tool for travel, no different than a pair of hiking shoes or a saddle on a horse.

His bikes reflect that duality. They're as at home on the leading edge of performance

as they are lazily cruising through meadows of wildflowers or weaving through traffic on the way to the market. He may have been sidetracked from his goal of rebuilding old bikes to publicize cycling's heritage but the results of his labors have themselves enriched that very heritage he wanted to preserve. The goal of creating bicycles that offer viable transportation options has been advanced enormously.

The Breezer

The name alone sets it apart: Breezer, kind of has a light, almost tropic ring to it. That's not all that sets it apart though. The nickel plating finish is an instant eye catcher. Not everyone likes it but everyone sees it.

Why nickel plate a bicycle? For maintenance, or rather lack of the same. Nickel plating doesn't scratch. Paint can look like hell after a few washes through the underbrush, half a dozen endo's, and countless trips bouncing around in the back of a pickup. Nickel will still look great with just a little polishing.

Of course, no one would think of treating such an expensive custom bicycle like that. But the truth is that after the initial glow of proud ownership fades and the pure fun of riding through the backcountry takes its rightful place in the forefront of priorities, bikes start to take a beating.

Joe knows that. Every custom builder knows that. But he's the only one who did something about it. Such thinking is typical of Joe. He's a practical man. His bikes reflect that.

Few Breezers are around. So few in fact that owning one is verging on cultism. That may change in the future if Joe gets into producing bikes again. But don't count on it. With all his fascinating design ideas (like the Hite-Rite and before that a device for having a freewheel and a foot operated rear brake on the same bike and before that a seatpost attachment for four-wire saddles,) it's doubtful he'll ever be able to settle into a steady production grind. So if you have to have a Breezer, you'll just have to stand in line along with everyone else and wait.

What are people waiting for? A beautifully crafted, high performance mountain bike. It's not the lightest and probably not even the fastest but for an all around bike that does it all, the Breezer is hard to beat. Parallel 70 degree angles, a modestly long wheelbase, and 18-inch chainstays make for a smooth riding, neutral handling mountain bike. It's not really all that different from a lot of other mountain bikes as far as geometry is concerned. What sets it apart is workmanship of the highest quality.

It's a bike that just feels comfortable. Steve Curran of Bicycles Etc. in Crested Butte has had a Breezer for three years.

Every year he gets in some new hot bikes and every year he ends up parking the Breezer while he indulges in a love affair with the latest. But eventually, he always returns to the Breezer. Why? No particular reason. It just feels right. It suits him.

Dave Penny is Steve's mechanic. He's also had a Breezer for three years. Feels the same as Steve about it. He's just not really interested in another bike. What he has suits him fine. He can race on it, trial ride on it, then load it up and take off into the hills for a few days or a week. He's even put street tires on it and used it for the bike leg of a triathlon.

Each spring they pull out their bikes, polish them up till they look like new, then wait for the latest and greatest to come through the doors of the shop. Neither has found a replacement. They'll probably still have those bikes ten years from now.

Solid, dependable, practical are words that seem to fit the Breezer. But they're deceiving, make the bike seem like a bit of a slug. It isn't. Remember, Joe holds the second fastest time ever on the Repack. He was also a category one racer for five years. Likes to ride fast, faster than most. His bikes do too. They just aren't loud about it. They go about their work quietly, so much so that it's easy to take the bike for granted. Are they worth the wait? The question alone says something about a Breezer. Usually the question is is the bike worth the price. With the Breezer, it's is it worth the wait. You'll have to ask somebody who did. But don't expect them to start jumping around and rattling on about how great the bike is. They probably won't. More than likely they'll just tell you "I like it."

Ask Joe about his bike and he'll probably end up telling you about his Hite-Rite. What's a Hite-Rite? A simple device born out of practicality. It's a spring loaded lever that grips the seatpost. Reach down and release the seatpost quick release and presto, you can lower the seat for downhill. Then, reach down and release the quick release again, stand up and presto, the seat rises to the same height it was at originally. Easy. Practical. Its weight is negligible and it's barely noticeable. But it works. Just like the Breezer.

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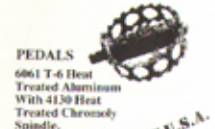
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Wilderness Areas: Conflict

by Gary Sprung



The U.S. Forest Service and National Park Service have arbitrarily banned bicycles from wilderness areas. Consequently fat-tire bicyclists, despite conservation orientations, have started opposing some proposed wilderness designations. Both the agencies and those bicyclists are wrong. Bicycles should be allowed on selected trails but wilderness preservation is the overriding issue.

My beef with the Forest Service stems from their twenty years of opposing more wilderness than they have supported, yet these professional foresters call themselves "conservationists" and have the nerve to tell me what wilderness means. The National Park Service is even more at fault because National Parks are created specifically for recreation as well as preservation. Recreation is almost incidental as a reason to establish Forest Service Wilderness.

Let's get one item done with early in this argument: land erosion or other physical impacts by mountain bikes is minimal as long as they stay on trails. Though almost no scientific studies have been done, I think it's fair to say their impact is between that of a hiker and a horse. If horses are allowed, then the impact argument says bicycles are OK, too. If the Forest Service really had physical impact in mind, it would not have banned hang gliders along with bicycles.

Bicyclists definitely impact the social environment when they encounter hikers who believe bikes are inappropriate in the wilderness. Here we get into the heart of the issue because what is appropriate depends on one's definition of wilderness.

In 1964 Congress defined wilderness as "an area where the earth and its community of life are untrammeled by man, where man himself is a visitor who does not remain." That word untrammeled is critical. It's defined as "not confined, restrained or shackled." Congress went on to say wilderness "retains its primeval character and influence," looks natural and not man-altered, and "has outstanding opportunities for solitude and primitive and unconfined types of recreation."

Mountain bikes did not exist in 1964 and Congress did not explicitly say what sort of transportation is appropriate in wilderness. It did generally forbid motor vehicles and "mechanical transport."



Grupa

Bicycles are certainly mechanical but so are skis, canoes, saddles, and even hiking boots. Webster's 1964 College Dictionary relates "mechanical" to machines, and defines "machine" as either "a vehicle" like an automobile or as "a structure consisting of a framework and various fixed and moving parts." Mechanical is a grey word and Congress provided no guidance. (As for bicycles' "mechanical advantage" over walking, skis and saddles provide that admirably.)

Wilderness cycling opponents who accept the greyness of mechanical often turn to "traditional" as the dividing line between horses and bicycles.

Mountain bikers should cast their self-interest to the wind and stand nobly and work actively in favor of protecting more wilderness!

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Well, the only mention of tradition in the '64 Wilderness Act are sections specifically allowing continued grazing and mining and use of aircraft or motorboats "where these uses have already become established." Nothing in the Act invokes the ambience of the Old West or the pioneers of the frontiers.

Congress did say wilderness recreation ought to be "primitive." Webster's in '64 said primitive means "characteristic or imitative of the earliest ages; ancient; original." In the earliest ages, backpacks, saddles, skis, and shoes did not exist. These inventions are roughly 500 to 10,000 years old. Bicycles are relatively recent but how primitive are they compared to Gore-tex/Vibram boots, fiberglass mountaineering skis, indestructible hypalon rafts, and super-comfortable backpacks? Today's wilderness users are more akin to spacemen than cavemen. Should we insist on wooden skis, or exclude wheelchairs and the new muscle-powered airplanes?

The Forest Service in its 1965 set of regulations implementing the Wilderness Act interpreted mechanical "as any contrivance...propelled by a non living power source." In 1982 that rule was still on the books and the Acting Director of Recreation recognized that the blanket prohibition of bicycles "may have been unduly restrictive. We can look at these types of vehicles as

being primitive, muscle powered, aids to transporting. The history of wilderness exploration has shown that early users of the American frontier and wilderness relied on bicycles, carts, and other primitive wheeled devices to transport their possessions."

At the same time, the Associate Deputy Chief told foresters the prohibition published that year should not have been blanket but "only where (bicycles) presence created a conflict or problem."

In 1983, the Chief of the Forest Service, R. Max Peterson, arbitrarily made the prohibition universal.

Regardless of the 1964 U.S. Congress, wilderness is a living concept which must be continuously interpreted. Unfortunately the Forest and Park Services did their interpreting according to their own ideas of wilderness and held no public meetings before issuing the prohibition rules. Why?

I'm confident most federal land managers do care about wilderness values, at least somewhat. But a conspiracy theory pops to mind: here we have the Chief of the agency overruling other top administrators, thereby creating a division amongst the pro-wilderness constituency between fat tire bicyclists and environmental groups (who oppose wilderness bicycling.) Thus weakening the wilderness cause. The Chief is the top non-political employee. His bosses are the political policy-makers currently in vogue, the anti-wilderness Reagan administration. Could they have created this division deliberately?

Whether or not that wild idea is true, mountain bicyclists should search their souls on this issue and examine their reasons for choosing wilderness and mountain bicycles. I suspect most mountain bicyclists choose canoes or kayaks over powerboats and cross-country skis instead of snowmobiles. They also like to get away from noise and now complain that no trails in the forest are open for bicycles to the exclusion of motorcycles.

Mountain bikers should cast their self-interest to the wind and stand nobly and work actively in favor of protecting more wilderness! Look at the political realities: only two percent of the lower 48 states is designated wilderness; only five percent could ever qualify. Civilization constantly threatens to engulf that last unprotected three percent. Wilderness is still the best protection against mining, clearcutting, road building, ORV destruction, and overcrowding. Wilderness holds the answers to questions we have not yet learned to ask.

In Crested Butte, we may lose one of the most popular and finest of all mountain bike areas if we succeed in protecting the nearby Oh Be Joyful valley as wilderness. In making such difficult choices for our last remaining wild lands, we should err on the side of preservation. It's better to lock these places up now; we can open them later should that prove wise. The Sierra Club and Wilderness Society, whose clout overwhelms that of the fat tire bicycle community, wisely want to avoid opening up the Wilderness Act to changes, given today's prevailing political atmosphere.

A possible alternative is the creation of intermediate designations prohibiting mining or motors but allowing some less destructive uses. We should also declare some wilderness totally

closed to humans. But such alternatives are currently politically impossible.

Fat tire bicyclists should continue to prod the environmentalists toward a better view of the virtues of wilderness bicycling. We'll have an easier time convincing if we stand up for preservation instead of our self interest. Such a move will benefit the public images of both fat tire bicycling and preservation. The alternative is nasty bickering between people who otherwise would be allies.

A series of 4 mountain bike races, culminating in the MOSQUITO PASS CHALLENGE, will be held in Colorado on June 29th (Ft. Collins,) July 20th (Boulder,) August 3rd (Co. Springs,) and August 24th (Fairplay.)

The SERIES is NORBA sanctioned, and open to professional riders, sponsored teams, and amateurs. Prizes and trophies will be awarded to the top competitors in each category. The grand prize, awarded on a points basis, will be a Ritchey Team Comp Mountain Bike.

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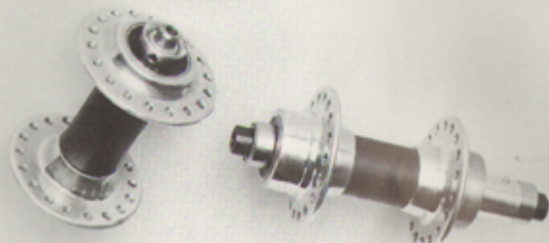
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Paul Gallaher

Pictured above are the latest hubs produced by Cook Brothers Racing. They're a light-weight, quick release design specifically for mountain bikes. With more and more mountain bikers switching over to quick release hubs, these are a welcome product. We're having some wheels built up with them and will conduct an extensive test between now and the August issue. A complete report will be published then.

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Cycling the Canyon Country

The desert/canyon country is like a Japanese poem where much is said and felt with but a few words.

by Hank Barlow



Kane Springs Canyon joins the Colorado River six miles south of Moab, Utah. A narrow, potholed, seldom used road leads out of town and downstream along the Colorado south to the junction. Massive red sandstone cliffs on either side of the river form a gate in the barrier of rock through which the river surges. The road is pinched between the powerful, silt-laden waters and the overhanging sandstone.

Most who explore the road turn back where the asphalt stops. But the end of the blacktop marks the beginning of a superlative mountain bike tour traversing the heart of Utah's canyon country. A graded road continues up Kane Springs Canyon for three miles before turning into a jeep road roughly paralleling the Colorado River.

Forty-five miles south, the jeep road intersects a paved road from U.S. Highway 191 to Canyonlands National Park's Squaw Flats Campground. The campground is eight miles west of the intersection. Sixty-five miles further south via more jeep roads is Utah State Highway 95 and Natural Bridges National Monument. Between Kane Springs Canyon and Natural Bridges is as striking a landscape as I've ever seen. But, like the attraction of cycle touring, its beauty isn't necessarily appreciated by everyone.

The land is hot, dry, and barren with a harshness foreign to most civilized environments. Towering red cliffs streaked with desert varnish dominate the scape. Talus slopes and canyon floors are littered with the debris of weathering, giant sandstone blocks perched precariously in abstract

We were alone in the midst of an almost tangible silence with the world seemingly at our feet.



Paul Gallaher



Barry Schappert

Whim indulging is an integral part of canyon cruising.

designs. There's a sense of imminent collapse frozen in time. Boulders as large as houses balance on top of fragile pillars, ready to crash any instant yet you can sit and watch for lifetimes and never see it happen. The desert/canyon country is like a Japanese poem where much is said and felt with but a few words.

My wife, 18-month old son, and I cycled from Kane Springs Canyon south through this spectacular country in May of '84. We rode mountain bikes with trailers. Mathew in one, our gear and water in the other. Even without our son, we would have taken trailers. There's no way enough water for extended tours can be carried on bikes alone. The canyon country is desert and dehydration occurs rapidly. Finding potable water cannot be counted on. A minimum of one gallon per person per day should be carried; one and a half gallons per person per day is even better. A gallon of water weighs about eight pounds. A four day tour means hauling a minimum of thirty-two pounds of water per person, exclusive of food and camping equipment. A trailer makes such loads possible.



Paul Gallaher



Paul Gallaher

Neither my wife nor I had ever been over the Kane Springs Canyon route. We had no idea what we would encounter, how difficult the cycling would be, even whether the route would go. All we had was an intuitive sense it was going to be a great ride. With so many unknowns, we planned conservatively. Our biggest worry was how Marlow would fare in the trailer on the rough roads. We didn't have worried. The cycling was exhilarating, the miles were rapidly left behind, and Mat had a ball. The road was for the most part smooth, graded dirt.

A hundred yards from the Colorado River, Kane Springs Canyon constricted, twisting deeper into the sandstone bedrock. The road climbed out of the canyon to a low hill, providing an excellent view of what lay ahead. In the foreground was a sheer, two hundred foot drop back into Kane Springs Canyon. The road dropped down the precipice via two hairpins blasted out of the wall. Below, the road curved around a bend in the canyon into a grove of cottonwoods. Their bright green leaves stood out boldly against the red walls. We stared at our route then suddenly realized the canyon wall opposite us was a delicate sandstone neck, no more than 100 feet thick. In another 100,000 years or so, the creek will probably have cut its way through.

A jutting prow of dark rock towered in the distance. We knew from the maps that the road climbed up then skirted around the base of the looming obstacle but from our vantage point, we could see no clue as to how it did so. Between us and the wall was a sea of convoluted rock devoid of any sign of where Kane Spring Creek had carved its path. But that's the canyon country's nature. Routes in the mountains are straight forward: up one valley, over a pass, down another valley. An apparently easily traversed plain in the canyon country will suddenly be cleft by an impassable, 500 foot deep canyon. And from the depths of a canyon, it is often impossible to tell where you are, where you came from, and where you're going. The canyonlands can be a maze more fiendish than any ever designed for rats by mad scientists. Getting lost even with maps is an easy affair.

We dropped into Kane Springs Canyon and followed it to where it opened into a broad valley hemmed in by the wall we had seen from above. There was still no sign of how the road circumvented the imposing obstacle. We checked our map, found where we were, saw on the map where the road went, and saw no sign of its route. The enigma intensified even after we forded Kane Spring Creek and approached the base of the cliff then looped back just like the map said we should.

Confronting us was a sandstone rampart almost two thousand feet high. The main mass fell in a sheer drop to a shattered section angling up and across the base to a ridge of crumbling turrets. That shattered section turned out to be the key. From a distance, there's no hint of it's being wide enough for a road to have been bulldozed along its length. But that's the case. The

Forget schedules and planned camping sites when cycling the canyon country. One moment you'll be drawn aside by an inviting view and the next barreling along at top speed for the sheer joy of it.

road twisted and dodged along the bench like the track of a curious mouse, climbing ever higher above the valley floor, skirting past precipices and overhangs of dubious solidity. Finally it turned a corner, traversed a ledge above a five hundred foot drop, and arrived on a saddle of the turned ridge. Someone long ago had named it Hoorah Pass and rarely have I encountered such an aptly named feature.

The views from the pass are amazing. On the far side is the Colorado River fifteen hundred feet below in a broad valley with red cliffs and mesas stacked one after another for as far as the eye can see. Eight hundred feet above us, on top of the red wall, is Anticline Overlook. The guard fence protecting visitors from stumbling over the

cliff could be clearly seen against the blue sky but I imagine none of the visitors could see us even with our brightly colored carts. No doubt we were lost in the immensity.

One look was all it took to decide Hoorah Pass was where we would spend the night. Scattered clouds to the west gave promise of a beautiful sunset while to the east were the Manti LeSal Mountains, over 12,000 feet high. We were alone in the midst of an almost tangible silence with the world seemingly at our feet.

The most dramatic sight of all was the route down from Hoorah Pass. An even narrower bench than the one we ascended angled down, clinging to an expanse of crumbling pillars and cliffs, to the base of the wall. Below, the road dove straight down a steep slope of sand, gravel, and sage to the flats along the river. But, typical of the ride, in the morning we discovered our perception had been mistaken. The bench was narrower than it looked, the dropoffs more spectacular, the hill leading onto the flats steeper, and the flats not flat at all.

The descent was pure exhilaration, a mix of great riding and bike handling with superb vista after vista. Sometimes Kim would disappear around a pillar. I'd follow only to suddenly see her heading in the opposite direction and forty feet away. Between us would be a three hundred foot drop! We stopped at the base of the cliff and looked back at our route. We couldn't see it. The possibility of a road across that vertical rock seemed absurd.

We shot down the long slope to the flats and into an incipient canyon surrounded by rolling hills. So much for the flats we had expected. We were soon distracted by an inviting side canyon curling out of sight. We hiked up it until stopped by a cul-de-sac and a deep overhang. The welcome shade and cool sand mesmerized us and two hours quietly passed while we relaxed and played with Mat.

Forget schedules and planned camping

sites when cycling the canyon country. One moment you'll be drawn aside by an inviting view and the next barreling along at top speed for the sheer joy of it. Utah's four-wheel drive roads are surprisingly smooth and mountain bikes can fly over them. Some sections may have loose sand you'll have to push through, cussing it out the whole way, but for the most part, loose sand is unusual. You'll probably find yourself caught in a dichotomy of wanting to ride hard and fast versus continually stopping to enjoy the display of grandeur. But don't worry, there's plenty of opportunity for both.

After leaving the side canyon, we pedaled over low hill and suddenly there was the Colorado River. A sharp right turn and a fifty foot dive would have landed us smack in the middle of a motorized commercial raft heading downstream with a load of tourists. The passengers about fell overboard at the sight of two cyclists in the middle of nowhere. Even the river guide seemed nonplussed. But compared to a later reaction by two cowboys, the rafters took it all in stride. The cowboys' armor of macho coolness broke at the sight of us. Their horses jerked to a stop, snorting at the apparition fronting them. One cowboy about lost his hat while the other dropped his hand rolled cigarette. They're probably still telling tales about the time they saw these crazy fools cycling through the desert with a kid in a trailer.

Despite such reactions, cycling on mountain bikes is the way to see the canyon country. They enable you to go places that previously necessitated a four-wheel drive or a long, dry hike. Vistas that are a bouncing, noisy, dusty blur to jeep passengers, you'll see clearly at your leisure while having a ball doing so. Plus you'll receive an extensive geology lesson on the earth's history. After riding through the uplifted, bent, faulted, and eroded sediments deposited hundreds of millions of years ago, your sense of man's place in history may be heightened. Mine always is.

The ride from Moab to Natural Bridges will take you over and through rocks from the Mesozoic and Paleozoic Eras. Most of the exposed beds in Canyonlands N.P. were deposited between 240 and 65 million years ago. The beautiful spans in Natural Bridges N.M. are 250 million year old Permian Cedar Mesa Sandstone. That's before even the Age of Reptiles. Mammals only appeared as the dominant life form 60 million years ago while man stepped on stage less than 3 million years ago.

But there we were, two homo sapiens on the latest high-tech, chemo-moly mountain bikes, staring at sculptures carved out of rock 200 million years older than man. Even more startling for me is the knowledge that those rocks are relatively young. The earth is some 4,700 million years old! The oval shaped area of land called the Colorado Plateau through which the Colorado, Green, San Juan, Little Colorado, and other lesser rivers have carved such dramatic canyons has been a sea three times. Mountains have risen, been eroded, sunk beneath the ocean, and risen again. Today's landscape is only

An apparently easily traversed plain in the canyon country will suddenly be cleft by an impassable, 500 foot deep canyon.

the current stage of evolution. The Cedar Mesa Sandstone that we so casually pedaled over while staring in wonder at the bridges took over 250 million years to attain its current state of affairs. That's what I call a serious time perspective.

And, for me, much of the attraction of cycling Utah's canyon backcountry is precisely that sense of perspective. The riding is

definitely superb, in fact it's fantastic, and the scenery is striking but, for me, it's the sense of time or rather timelessness that has the most powerful effect. Visiting the desert canyon country has an emotional and philosophical dimension that I rarely experience anywhere else. Combined with the wonderful off-pavement riding, some of the best I have ever had, that makes for a special adventure.

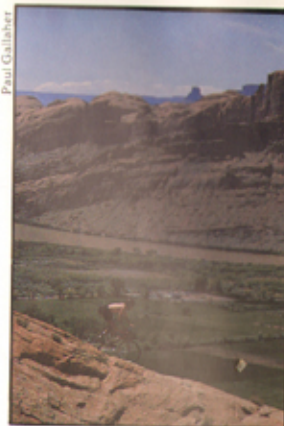
But desert cycling requires self-sufficiency. Stores, service stations, and cafes are nonexistent. For that matter, even towns along the main highways are few and far between. Days can pass without encountering another person though that is unusual. Four-wheelers regularly drive the jeep roads and you'll probably encounter one or two each day, maybe. But even if you do, it might not coincide with your needs.

A comprehensive tool kit, self-supporting tent (putting in pegs can be impossible,) first aid kit, and stove are required. Don't plan on cooking over wood fires. Wood is scarce and far more valuable to the environment than to you. Thorn-proof tire liners and spare tubes are also strongly recommended. Plan clothing for conditions ranging from heat to hail and back to heat, all within an hour's time. The desert is a land of constant extremes, both environmentally and visually.

Self-sufficiency is synonymous with freedom, freedom to go where you want for as long as you want, dependant upon supplies. The freedom to dawdle is important when around every corner lurks a siren surprise to draw you aside. Because you can camp almost anywhere, there's rarely a need to arrive at a specific site before dark. Whim indulging is an integral part of canyon cruising. So next time you want to get away from the world, indulge yourself. Load up your car with mountain bikes and gear and head to the canyon country for an adventure you'll never forget.



Mark Barlow



Paul Gullberg



Paul Gullberg

Shoes *have the ultimate been invented yet?*

What shoes to wear for backcountry cycling has yet to be fully settled. Until recently, the favorite of many a mountain biker has been the Nike Lava Dome, a lightweight hybrid hiking shoe/sneaker. To the great disappointment of many a biker, the Lava Dome has been discontinued so the search is on for a replacement.

NIKE DISCOVERY

You don't have to look far for one option: Nike has introduced the first cycling shoe designed for mountain bikes, the Discovery. The shoe's most prominent feature is the sole's reverse lug pattern. The problem with lightweight hiking shoes like the Nike Lava Dome has been the difficulty of sliding in and out of pedals and toe clips. In fact, the lugs help keep the shoes on the pedals. But if you ride with clips, and more and more mountain bikers are, lug soles can be a drag.

The Discovery's reverse lug sole has

that problem covered. We've been using a pair for some time now and without exception, everyone has liked them. They slide in and out of clips easily, the sole is stiff enough for hammering up hills in comfort, and the traction for hiking seems fine. There's a cleat ridge for pedal placement on the sole but no one has noticed any advantage from it. Which is probably just as well since a built-in ridge won't necessarily line up correctly for your feet.

Their comfort for hiking isn't bad but I suspect possibly not for long hikes. The shoe has a narrow heel and broad forefoot, good news for those with wide feet, except that it then rounds in quickly across the toes. That's fine for toe clips but for long hikes, the design may not be as good. The reverse lug sole works well everywhere we've tried it so far. That's always been the great advantage of the hiking sneaker, great traction in the backcountry. The Discovery is quite a bit lighter than Lava Domes and if

they're as durable, Nike probably has another winner.

The uppers are a breathable duramesh with split leather heel and toe reinforcements. A rubber rand extends around the toe to just past the ball of the foot for additional wear resistance. Pulling hard on the clip straps has yet to cause a rider any discomfort, important for those with wide feet. A padded tongue and ankle collar provide additional comfort while a gusseted tongue keeps dirt from entering. Unfortunately, they are not available in widths so narrow feet may have a problem. The shoes were designed with help from Specialized, the distributor for Nike cycling shoes.

FABIANO TRIONIC 512

The best replacement I've seen yet for the Lava Dome is the Fabiano Trionic 512, a low cut, lightweight, cordura Gore-Tex laminate and leather hiking shoe. The Trionic lug sole doesn't work very well with toe clips, at least not with the pedals

Continued p. 36

NIKE VELO \$54.95 FABIANO TRIONIC 512 \$81.95 NIKE DISCOVERY \$54.95 Nike Escape \$49.95 AVOCET Model 20 \$32.95 Model 30 \$42.95



Tents *nine great models for every adventure*



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Paul Gellatly

A tent's role is fairly basic: to provide shelter when that great weekend weather you'd planned on collapses. As long as it erects in a reasonably short period of time without requiring an engineering degree, keeps you dry and relatively comfortable, there's little else that can be asked of a tent. Such straightforward requirements would seem to dictate an approach to tent design along the same lines as designing Mao jackets.

But if you haven't looked at tents recently, you're in for a surprise. The standard issue, cantenary-cut, A-frame tent has gone the way of the bison. Today's tents come in a dizzying array of sizes, shapes, colors, and materials. Choosing a tent is not easy.

What can you do to insure satisfaction? Figure out exactly what your needs are. Will you use it strictly in the summer or are winter trips a possibility. What's the minimum interior size you can live in without feeling claustrophobic. Remember, a tent is for those times when the weather is the pits. You may have to hang out in it for hours or even days at a time and your mental state will probably reflect the weather. Will you be sharing the space with a relative stranger, close friend, or family? Just like birds on a telephone line, people require certain distances between one another depending upon the relationship.

The primary factor in tent selection for cycle touring is weight. Weight dictates tent size. All of the tents reviewed were chosen because of their light weight and compact

Such straightforward requirements would seem to dictate an approach to tent design along the same lines as designing Mao jackets.

size. All but one are two-man tents. If weight isn't critical and you're willing to sacrifice weight for room, these tents may not offer what you want.

The tested designs are amazing in their ability to maximize interior space relative to overall size and weight. But they do differ. Some have room for two people and that's all. Others have room for some gear while a few have vestibules for gear storage and cooking. Some use a single skin of Gore-Tex while others use a traditional rain fly. Still others simply use a single skin of waterproof nylon.

Like most things in life, opinions on which design works best are purely subjective. One person's perfect solution is another's nightmare. Unraveling what can

quickly turn into a maze of conflicting opinions is not easy. But there is one comforting thought: it's difficult to buy a bad tent.

Ask experienced campers what they use and what they think about it. Talk to the folks in camping and mountaineering stores. A climbing club can be a gold mine for information.

Set up and take down the tents several times without any help from a salesman. Sit in it. Imagine having to be cooped up in it during storms. Is there room for you to stretch out? Sit up? What about storing gear and changing clothes? And cooking? There's nothing like being cooped up in a tent to create overpowering longings for food and tea. Do the colors drive you crazy or do you feel relaxed? Is the skin taut? Does it feel like it would stand up to the worst onslaughts you'll probably encounter?

Sit in it with someone else. Lay out two sleeping bags. Is there enough room? Or are you going to spend the night gnawing on the other's elbow? Will you be able to enter and exit without stepping on the other's face? Can you take off muddy shoes without getting everything inside muddy? What about storing them for the night?

Keep your primary requirements in mind. If weight is one, don't be lured by extra room in heavier tents. It's a rare backcountry traveler who isn't always looking for some way to reduce the load.

☐ BIBLER I-TENT (3.3 lbs): Bibler tents are not particularly well known but within the

continued p. 36

Bikes more information to confuse the mind

SCHWINN CIMARRON

Schwinn's 1985 flagship mountain bike is the Cimarron. Touted as a bike for the serious off-road rider, it's equipped with the latest high-tech components to satisfy all but the hardest core performance riders. Well, almost all. There is this slight problem with the handlebars. We'll get to that later.

The bike has 4130 chrome-moly, double-butted main tubes ovalized and flared at the head tube junction for maximum brazing strength, according to Schwinn. The brazed head tube junctions look like those normally found only on expensive custom bikes. The rest of the main diamond is lugged. Rounding out the frame is a chrome-moly Tange Unicorn fork, currently the hottest fork going except for the hard to get hold of and expensive Wilderness Trail Bikes Type II competition fork. The Unicorn is light and rigid for a precise, ground-hugging ride and hardly a pretender to the throne of hottest racing mountain bike comes equipped with anything but a Unicorn.

Cimarrons come in any color as long as it's Forest Green, an excellent choice. The paint makes the bike look more expensive than the suggested retail of \$550. Double water bottle bracket braze-ons and front low-rider and rear carrier bosses for Blackburn racks are standard, a nice touch on a bike that encourages backcountry touring.

Our stronger testers found the 23-inch frame a bit soft, possibly due to the lack of oversized tubing. No one weighed over 150 pounds so the larger riders the 23-inch frame is meant for may also find the frame a bit soft. Despite that, the testers were impressed with its climbing ability. The test ground was the Slickrock Trail outside Moab, Utah, an unsurpassed playground for the bikes to show off their mettle. The Schwinn performed admirably except for one handicap, the previously mentioned handlebars.

The bars are great for town cruising and, admittedly, a large proportion of mountain bikes sold do exactly that. But if performance is what you want, and that's what Schwinn designed the bike for, the handlebars don't make it. They're the best the testers had ever used around town to watch traffic. But off road, especially climbing, forget it.

Steep climbs require standing in a low crouch over the top tube and handlebars. The steeper the climb, the lower the position. The objective is maintaining rear wheel weight for traction without doing a wheelie. But the Cimarron's high bars made everyone look like chickens running, trying to fly. Elbows stuck out above backs while chests were pressed as low as possible into the curve of the bars. The position was neither strong nor comfortable. Descending wasn't bad, keeping weight back on even the steepest descents was easy. But everyone still felt out of balance.

That was unfortunate since the bike encourages aggressive riding. The relatively short wheelbase and chainstays (43.25 inches and 18 inches on the 23 inch frame), parallel 70 degree

angles, and Unicorn forks are the source of the bike's semi-race feel and excellent climbing ability.

Components are top of the line: Shimano 600EX headset and crankset, Shimano Deore XT and Super Plate derailleurs, Shimano Deore XT brakes, levers, and hubs, Araya 7X (N) rims, Shimano 600 freewheel (14-32), Suntour XC pedals, Suntour Superbe seat post, and Avocet Touring I saddle. The tires felt something to be desired though. They're a combination off-road/street tire with a raised center rib and modest cleats on the sides. It's not much of a street tire or a dirt tire.

But those few gripes are easily changed, except for the frame. Smaller frames than the 23 inch we tested are probably somewhat stiffer. For \$550 dollars, you'll get a good frame, excellent fork, top-of-the-line components, and all the braze-ons you'll need.

ROSS HI-TECH MT. WHITNEY

Ross jumped into the mountain bike world with both feet a few years ago, fielding the first mountain bike race team and offering a full complement of models to choose from. One of the best selling of those models has been the Hi-Tech Mt. Whitney with its unmistakable chromed frame. The 1985 version is unchanged and still offers excellent value for the price. But some riders felt that while other manufacturers' designs have evolved while the sport matured, Ross has stood pat.

That isn't necessarily bad. Why change something that works as well as the Mt. Whitney simply for the sake of change. But with frames becoming shorter and steeper for quicker handling, the long wheelbase, long chain stay Ross seems slightly out of step with what's current in the mountain bike world. Especially since most of the Ross race team bikes adhere to current frame ideas.

Not that the Mt. Whitney's frame is all that different. It's wheelbase is only an inch longer than the Steve Potts racing bike, the chain stays likewise an inch longer, while the angles are the same. Those differences add up to totally different bikes. But then it's not meant to be a racing bike.

What the \$550 Mt. Whitney does deliver is solid, reliable handling, never quirky and always smooth. None of our testers characterized its climbing ability as exceptional though a rider from Moab flew up most of the steepest Slickrock hills on his own Ross. Descending was also smoothly dependable but in tight maneuvering, the bike was a bit sluggish.

Everyone's main gripe was the handlebar/seat relationship. The handlebars are the triangulated design popularized by Tom Ritchey and, until recently, almost standard equipment on all bikes. But there's no way to adjust them for reach and they're well out in front of the rider. The seat post, with its quick release, forward/adjust design, places the rider further back than say a U.S. Tubular seat post does. The result is lots of space between saddle and handlebars. That's fine for those with short legs and long torsos but for our testers, the distance was too long.

What made that particularly surprising was the frame size, 19 inches. The riders were all over 5 foot, with three of them in the 6 foot range. All normally ride 20 or 21 inch frames. Yet everyone felt stretched and out of balance even with the seat in its furthest forward position. An even smaller rider could hardly reach the grips. All that can be corrected by changing handlebars and seatpost but a shorter top tube seems more appropriate.

Components are excellent: Shimano Deore XT brakes, levers, shifters, and derailleurs, Shimano freewheel (14-34), Tourney XT crankset, Suntour XC pedals, Suntour sealed hubs, Araya 7X rims, and Selle Royal saddle. Tires are Panaracer 2.125's with a combination street/dirt tread that does neither particularly well. Two water bottle bracket braze-ons, rear rack braze-ons, and fender mounts are standard. Front low rider braze-ons would also be nice since the bike is perfect for touring, off road or on.

The frame itself is bombproof with oversized Ishiwata MTB chrome-moly tubing and welded gussets at the down tube/head tube junction. Head and seat tube angles are 70 degrees with 18.5 inch chainstays, and a 43.25 inch wheelbase (19 inch frame), a conservative geometry that does everything well but, according to our testers, nothing exceptional. The long chain stays and wheelbase detract from its climbing ability and slow speed handling but for comfortable off-road touring, they're great. Road shock disappears. The only thing the bike lacked, according to our testers, was excitement, but then all are experienced riders who like high performance bikes.

The chrome finish may not appeal to everyone but it's maintenance free. Fancy paint jobs look great when they're new but after a summer of banging through the tullees, a mountain bike begins to resemble a refugee from the war zone, battered and scratched and looking for a hard earned rest. The Ross Mt. Whitney will still be going strong with only a good wipe down required to restore its luster. That alone makes it an fine buy. The excellent components, solid construction, and reliable performance only add to its value.

STEVE POTTS

"For \$2,000, it ought to feel right! Hell, for that much, it should cook and clean house too!" Septic or not, he was right. Any bike that costs that much should feel right. The Steve Potts bike.

Without exception, everyone who rode the Pottscycle exclaimed that it's how a bike is supposed to be. Comments ranged from housewives who rarely ride a bike (and then only to the corner store) to Thomas Prehn, National Team member and veteran road racer. Last fall, Thomas called Steve Potts and Mark Slate, builders of the Steve Potts and Swift mountain bikes, asking about the possibility of a Potts race bike for a Gant Race in Tampa, Florida. They put one together, shipped it out, Thomas raced it, and finished second in only his second mountain bike race! He said "Without the bike, no way could I have pressed Lawrence (Malone) throughout the race. I would have been well back in the pack."

So what does a \$2,000 bike look like? Just like any other, at first glance. Then people start noticing little things. Like a finish so smooth that one tube flows into another as if the frame came out of a mold. The paint is exquisite. The test bike was a brilliant Ferrari racing red that drew gleances everywhere it went, even when covered with dust and mud.

Or the brakes, Wilderness Trail Bikes (WTB) roller cars, built by Steve and Mark in partnership with Charlie Cunningham, the brake's designer. Charlie sold the patent to Suntour and the brakes are beginning to appear on more and more race bikes. But as good as the Suntour XC brake is, the WTB originals are better. The polished aluminum arms are machined rather than forged and the bushings are brass. The finish is what you'd expect on hand-crafted parts. They're as much a work of art as a piece of

bikes are meant to ride, everyone wants to take it out, see how it goes. No one returns disappointed.

One particular hill on the Slickrock Trail thwarted all the testers' best efforts. It was only about 75 feet long with a gradually increasing slope. The ancient sand dune provided excellent traction. A slight bulge near the top was the killer. A hard core rider from Moab said he knew of no one getting up it. No longer. The Potts made it up. It's that kind of bike.

The Moab hotshot turned the riders onto another long hill, one he climbs regularly but never with any ease and not always successfully. After leading the way up on his Ross, he was handed the Potts. "Try it with this."

He did. Flew right up. "Never could have made it up a second time in a row on mine. In fact, I've never made it up so easily."

It's a bike where everything is right. The 70

solidness that belies the bike's quickness. The bike's speed is almost lost in its silky ride.

A hot riding bike mechanic, a veteran of countless test rides on almost every mountain bike made, said "I've got this test track I take the bikes out on. It's got a little of everything. I took the Potts into the gravel section and threw it into a slide. Unlike a Ritchey Comp for example that sets up into a slide then stays right there, the Potts smoothly, instantly responded to every movement of my body. The control I had during the slide was total. When I took it up this one hill, I hammered the pedals the way I usually do, and the bike accelerated. No bike had ever jumped like that."

Is it worth \$2,000? Only if you can afford it. A Potts won't turn you into a world class mountain bike racer though it might make you feel like one. Owning one incorporates an appreciation for the



STEVE POTTS \$2,000 SCHWINN CIMARRON \$549 ROSS HI-TECH MT. WHITNEY \$549 RALEIGH ELKHORN \$410

machinery, beautiful to look at but better to use.

Then people notice the shifters. Steve and Mark take Suntour shifters, modify their workings, cut down and polish the handle, then graft them onto Magura brake levers for the easiest, most convenient shifters yet made. The forks, massive looking affairs appearing capable of absorbing the worst trail shocks anyone could subject them to, are always attention grabbers. The WTB Type II Competition fork blades are SP 20 tubes, ovalized 10%, with no rake. The 2 inch rake is right where the steering column enters the head tube.

"Check out these trick wheels and fixed angle seat post! Cool! And look at that pulley wheel for the derailleur cable." Comments pile up but since

degree parallel angles, 17.5 inch chain stays, 42.5 inch wheelbase, and 22.5 inch top tube aren't radical but the overall effect is almost unreal, a spoiler. The handcrafted WTB chrome-moly stem comes in a variety of lengths with flat bars bent slightly back towards the rider. The WTB fixed angle seatpost lets riders slide the seat further forward than any other seat post, effectively steepening the seat tube by as much as 2 degrees for optimal rider position over the cranks. The seat, stem, and bars plus frame sizes in one inch increments assure riders that the bike they buy fits them.

What's it like to ride? Like a hot road racing bike but without the extreme angles, twitchiness, and rough ride. Everyone remarked on a sense of

little details and demanding workmanship. Steve and Mark put into every bike. It's a special bike, as are almost all custom bikes, road or mountain, and the sense of pride that goes hand in hand with owning one is shared by all who decide on the custom route. But even amongst those used to riding \$1,500 and \$2,000 bikes, the Potts stands out. Particularly with road riders who generally have looked down their noses at clunky mountain bikes. Its solid feel, neutral handling, ferocious climbing ability, and quick as a cat agility add up to a riding sensation that can quickly become addictive.

RALEIGH ELKHORN

Anybody who reads cycling magazines or *Outside* regularly has to be aware of the Raleigh

continued p. 49

Paul Gallaier



EUREKA CRESCENT \$150 SIERRA WEST SKYLITE \$224 MOSS STARLET \$265

small circle of mountaineers and outdoorsmen who have used Bibler tents, their reputation is unsurpassed. The Bibler I tent is a lightweight, free-standing, 2-person mountain tent equally at home high in the Himalaya or on a Baja beach.

The design is a rectangular, modified dome. Set up is a snap. Two shock corded, aluminum poles run diagonally inside the tent from corner to corner. The single skin of GoreTex Laminar stretches over the poles. There are no sleeves to slip the poles through and staking down is not required. There's little extra room so things can be tight for two and their gear. The arched roof and steep walls let each person comfortably sit up inside. A tunnel vent near the peak provides the ventilation single-skin, waterproof tents require. The tent's steep walls shed snow as quickly as it falls, making the I-tent one of the lightest four-season tents on the market.

CHOUINARD PYRAMID (2.4 lbs): It's not really a tent but a tarp. The design is basically a copy of the discontinued REI McKinley tent rain fly. Some Outward Bound instructors years ago used the fly as a tent and all who did so quickly made it their favorite shelter. Chouinard wisely put it into production.

Set up is remarkably easy. Stake out the corners then crawl underneath and raise the single, center pole. What makes the Pyramid so unique is the ability to set it up with the tarp's bottom edge 6" to 12" above the ground for ventilation and visibility. When the weather closes down, simply stake the

tarp's edges on the ground.

The Pyramid has more room per weight than any other tent tested. There's space for two including gear. In a pinch, three with gear can shelter under it but with a corresponding loss in comfort. Solo cyclists can even bring their bike in out of the rain.

For those with kids, no floor means no worries about spills and the ability to always cook inside. The floating sides let kids crawl in and out at will without the parents having to worry about the stove being knocked over.

EUREKA CRESCENT (4.3 lbs): This is a luxurious one-person tent for those who like room but in a pinch, two could make do in it. If you want shelter but don't like being cooped up, this might be the ticket for the solo cyclist. There's plenty of room for one person and gear.

The design is a narrow rectangle with a high, arched roof. One long side opens up while one end is a net window. A person can sit in the opening completely sheltered with an unobstructed view. The Crescent was the most spacious tent reviewed.

But it's a bit heavy for its size. It was also the hardest to set up because of sleeves seven too small plus deciding which sleeve to insert poles into can be a hassle. The Crescent is great for tours through hot lands. The design insures ample air while providing plenty of shade for a great place to hang out.

MARMOT MOUNTAIN TAKU (4.7 lbs): Marmot Mountain Works is another little

known mountaineering firm. Those who've used Marmot Mountain equipment swear by it.

The Taku is a single skin, GoreTex tent with internal poles. The design is a modified tunnel supported by three poles. There are no sleeves to thread the poles through and only three pegs are needed for staking out. It's one of the best ventilated tents made. Air flows from a large, protected rear window to two small windows high in the front. This is the only tent tested with two entrances, a definite advantage. One person can sit and cook in one door while the other can enter and exit at will without disturbing the cooking. A storage area is between the two doors for additional convenience.

The tent's widest point is near the front where there's headroom for two to sit up comfortably. The sides narrow toward the rear as the roof line lowers. The steep walls and sturdy construction make this one of the lightest, roomiest, four-season tents around. It's been tested in Alaska and the Himalaya with glowing reports. But it's equally at home in the desert or Blue Mountains, wherever lightweight tents are wanted. It was invariably one of the first to be pulled out and set up during testing.

MOSS STARLET (4.9 lbs): Moss Tent Works seems to be building a reputation as the Mercedes of tents. His designs range from exotic to conservative, including tents people literally live in, furniture and all.

The Starlet is a tent for star gazing. The design is a modified dome with a rectangular floor. Two long, shockcorded poles slide

through sleeves, crossing over each other then back again, forming a flatish, elongated egg shape at the peak. The top third of the tent is mosquito netting, perfect for watching the moon. The fly attaches with Fastex buckles at the four corners. It's a free standing tent but the fly requires staking out. Set up is fast and easy.

There's room for two with a vestibule for gear. The net door is on the outside so if you have to close the door in the night, you don't have to unzip the netting to do so. With everything staked out and zipped up, the Starlet is as bombproof as you could ask for, seemingly able to weather a hurricane. With plenty of room for two to sit up and relax, storms can pass in a hurry.

SIERRA DESIGNS CLIP FLASHLIGHT (3.6 lbs): We couldn't figure out the name either. It's a great little tent anyway, similar to the June Bug except for one major difference, the pole structure. Instead of sleeves to slide the poles through, Sierra Designs uses what is called an exoskeleton. The tent is then clipped to the poles with plastic carabiners (for lack of a better description.) It's an ingenious design that definitely facilitates tent set-up.

The rain fly then stretches over the exoskeleton, forming an integral vestibule in front. The finished product is taut and efficient. The only lack is interior space but that's offset by the tent's light weight. Only one person can sit up at a time inside. Ventilation is excellent with a rear window and net front door. The waterproof door is part of the fly, a clever method for reducing weight, the obvious criteria in designing the Clip Flashlight.

Foul weather protection is excellent. The worst storms can be taken in stride though the lack of interior space could get old during protracted stays. But then a

bigger tent would weigh more and the Clip Flashlight's weight is about as low as you can get without getting into tarps like the Pyramid.

NORTH FACE JUNE BUG (4.7 lbs): North Face is a company with an enviable record of customer loyalty. With just cause. Countless people have bought North Face equipment over the years and satisfaction has been all but guaranteed.

The June Bug is a two pole, modified tunnel. Set up is particularly fast and when finished, the tent sheds wind like a retriever shedding water. A vestibule for gear storage is part of the rain fly, necessary since interior room is minimal. There's barely room for two to sit up and if you're cooking inside the vestibule, one person will have to remain in or out.

A unique and attractive feature is the ability to use the rain fly without the tent for a dramatically light shelter. All that's needed are the poles and pegs. In fact, it's so great, we wondered why anyone would bother with the tent. Bugs and creepy crawlers are the only reasons we could think of.

As a one-person shelter, the June Bug is downright luxurious. Plenty of room for gear and hanging out through the worst storms. Once again, North Face lives up to its hard earned reputation, something those who have grown to rely on their products are glad to see.

SIERRA WEST SKYLITE (4.9 lbs): This is another star gazers delight. The top half of the canopy is mosquito netting. Set up the tent without the fly and lay back to enjoy the show above. The Skylite is a modified tunnel design, long and narrow. Set up time is fast. The rain fly attaches with Fastex buckles plus stakeouts. The fly forms a canopy over the front door for net protection. The top part of the door is netting and

the canopy very adequately shelters the netting from rain even when the wind is gusting. Flow through ventilation during storms is excellent even with the door zipped shut.

Quarters are a bit cramped. There's only room for one person at a time to sit up but the canopy enables that person to cook outside the tent while remaining inside. But the second person will have to stay put. The tent's long length provides limited gear storage at the foot of the tent or, for particularly tall people, room to stretch out. In fact, the Skylite is one of only a few lightweight tents with room for tall folks.

WALRUS (4.0 lbs): This could be the bargain of the crowd. It's a waterproof, single skin modified tunnel design supported by two poles. Interior room is deceptive considering the tent's weight. Three adults can sleep in it in a pinch without equipment though it's really a two person tent. Two people and their gear are easily swallowed by the roomy interior. Condensation is minimized by excellent ventilation via a large rear window, two long side windows protected by closable awnings, and a well sheltered window in the door.

Set up is quick. The shock-corded poles slip into large sleeves. A peg at the rear and two in the front stand up the tent in a taut, wind shedding tunnel shape. The side windows zip open and shut and have guy lines to stake them out when open. They're sheltered so well that the windows can and should be left open in all but the windiest rain storms. The more ventilation, the less condensation will develop, a potential problem in any tent.

Gear can be stored inside at the foot, leaving plenty of room for spreading out, cooking etc. in front. Two people can comfortably sit up without crowding.



WALRUS \$170 CHOUINARD PYRAMID \$115 MARMOT MOUNTAIN TAKU \$465

Alive in the Desert

Story and photos by Dennis Coello

I still remember the pain from gripping the handlebars, the pressure driving cactus needles into my skin. But I'd been fortunate. I was still alive.

I know. At first glance it seems crazy. Pedal through sand? No way! And even if you can, why bother? It's hot, there's nothing to look at, the cycling couldn't possibly be enjoyable...

These are the thoughts most people bring to this subject. Unless they live in the Southwest, cyclists are liable to believe our deserts are like the Sahara: windswept dunes of bottomless sand and oppressive heat. So how could a bicycle work in such an environment?

Not so long ago, that was what I thought. But any such thoughts have been dispelled completely. The mountain bike, and a bit of knowledge about our deserts, have opened thousands of square miles to cycling adventure. Four years of off-roading in Utah, riding from San Diego to Santa Fe along the Gila Trail, cycling through abandoned mining towns and cavalry outposts and over Apache war trails in southern Arizona have introduced me to some of the most thrilling cycling and beautiful natural settings I've ever enjoyed. And all of this is possible with only a few mental and mechanical precautions.

To share these wonders with you, I'll introduce you to our deserts, tell you a few things you'll see, explain the kinds of riding and weather you can expect, and list the precautions I've found necessary for sustaining life. It's perhaps a slightly academic approach but one that will show you a realm of unbeatable cycling adventure.

Forget the blowing sand dunes. We've got a bit of that but mostly in areas set aside as National Monuments or State Reserves. Instead, our deserts have somewhat harder surfaces: dry, crumbling dirt; parched soil over a base of igneous or sedimentary rock; baked solid clays split apart into mazes of fissures. There are four different deserts in the United States: the Great Basin, Mojave, Sonoran, and Chihuahuan. Each is distinguished by unique combinations of heat, elevation, flora, and fauna. All are traversed by dirt roads and old trails that make for fascinating cycling.

The weather variations found in these desert areas of Nevada, most of Utah and

Arizona, portions of New Mexico, California, Oregon, Idaho, Wyoming, and Colorado are endless. I've frozen on Nevada's 13,000 foot Wheeler Peak, and baked in Yuma, Arizona, elevation 141 feet. I've black-tongued my way for miles across some of the driest looking land around and been soaked in cloudbursts reminiscent of Asian monsoons. All of these extremes were on lands which qualify as "desert: an area receiving an average of ten or fewer inches of precipitation annually."

Dictionaries claim deserts are "dry, barren areas incapable of supporting life." That generality is wrong. Granted, they cannot support the richly varied life I grew up with in Missouri. But the desert has its own, fascinating lifeforms: forests of huge saguaro cactus, Joshua, mesquite, and palo verde trees; cacti of every imaginable shape and color; reptile, mammal, and insect life that will interest, mystify, and (in your first encounter with scorpions, sidewinders, and tarantulas) possibly terrify.

Then there's the geology. Back east, it's hidden by trees and soil. In the desert, huge reefs, flat-topped mesas, banded cliffs of brilliantly colored rock, soaring arches, and natural bridges are all dramatically exposed.

Okay, so much for our thumbnail sketch of deserts. Now for the larger question: how can cyclists adapt themselves and their bikes to ride these areas? And believe me, adaptation is required. You can get into serious trouble without it.

In 1974, during my world ride, I was pedalling solo from Jerusalem to the Negev. Near a tiny village I passed a burned out Egyptian tank, a relic from the '67 war, then later several shepherds and their flocks, then still further south two kibbutzim (collective farms.) I could have obtained water from any of those places but assumed from my map that services would be available at a

major road junction up ahead. Nor did I feel thirsty. I wasn't perspiring and I had two full water bottles. Finally, there was occasional traffic and I could always flag someone down if I needed.

The road junction came but there were no buildings. Thinking something would be ahead, I pushed on. During the next hour, I saw no more cars and drank up more than one bottle. The day grew hotter and I removed my shirt and slaked my thirst with my last few ounces of water. I was now down to only the food in my panniers and the hope of a village or passing car. Unthinkingly, I'd rejected purchasing oranges in Jerusalem due to their weight. Two more hours went by. My pedalling speed dropped to a crawl and I recall feeling sluggish in my thoughts as if awakening from a deep sleep.

"Should I turn around," I asked myself. "But what if over the next hill is a village or a car?" On I pressed, ever more slowly.

At last I came upon a valley filled with cacti and on each plant was the "sabra," a



most, spine-guarded fruit. I have no idea how many late or how long I lay in that bit of shade before I fell asleep. When I awoke, the sun was low. I packed more sabra in my bags and pedaled off. I still remember the pain from gripping the handlebars, the pressure driving cactus needles into my skin. But I'd been fortunate. I was still alive. That experience, which ended pleasantly a few miles later when I came upon a kibbutz, convinced me to learn about deserts before venturing forth again.

Two-thirds of the human body is water. A man working hard in the desert at 90 degrees F. requires ten quarts of water replenishment every day. The more direct rays of the sun typical of desert regions can burn even a well-tanned body as I learned that day in Israel. Even worse, not deflecting them with a shirt and hat can cause a 10 degree F. increase in temperature.

High temperatures and aridity can cause a slight state of dehydration without any sense of thirst, thus the need to drink before feeling thirsty. Although perspiration appears non-existent due to almost instantaneous evaporation, even walking in the hot desert causes a sweat loss of one quart of water per hour. Insufficient fluid replenishment will result in sleepiness and listlessness.

My one frightening experience happened more than a decade ago. Since then I've had days of drinking less than I would like but never again have I had any real concern



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during my desert travels. I pack more than a gallon of water (over eight pounds) and grapefruits each time I venture out into the desert and away from known sources of water. (Watch out for ghost towns listed on maps as normal settlements; I once had thirsty winter desert day in Utah because of this.) Such loads are heavy but sturdy mountain bike frames and spokes can handle it and the extra weight insures my comfort and well being.

Enough of adapting oneself, what about the bike? First, the tires: 2.125 inch skinnies knobbies for traction with tire liners to repel cactus needles. Second: sealed hubs to hold back blowing sand and dust. Next, remove all visible oil and grease from components; clean and dry chain and derailleurs then lubricate with a dry-lube solution and wipe off all excess. Replace worn foam handgrips or wrap them with leather to absorb the perspiration and hard knocks of desert travel. (Gloves also help reduce roadshock and come in handy if you get into cactus.) Finally, be sure your granny gearing is in the low 20's; you'll need it in the desert. Non-paved roads and trails are often much steeper than paved highways plus the softer surface is quite a bit slower.

And now to the adventure you purchased through these precautions. Imagine the thrill of coursing over desert roads and trails past soaring sandstone battlements, riding fast on packed dirt or bedrock then unexpectedly dropping into dry washes of soft sand. Thumbshifters get a workout as you madly throw the chain to lower gear, pedaling for all you're worth to maintain balance and momentum as you slither through then up the hill on the other side of the wash. Imagine as well the sheer joy of roller coaster riding over mounds of sandstone where you can fly as fast as you dare, bouncing like a pebble if you fall.

But there are other aspects to the adventure of desert cycling. There's the pleasure of meeting the same challenges to life that other creatures and earlier fellow-man dealt with when crossing those same dry miles. I've spent many pleasurable hours tracking desert animals for long distances, pedaling in a low gear, saddle in a low position. My knobby tires and sturdy bike have let me spend more than a hundred nights alone in desert lands along the Gila River across three states and on the lip of a thousand foot gorge above the Colorado River or watching a full moon rise above Arizona's Navajo Reservation.

It is said we know life best by its contrasts. If so, desert travel - by the day or month-long tour - fits the bill. So pack a snakebite kit, tweezers for cactus needles (both of which you probably won't need,) and good sunglasses and goggles for when the wind blows. Don't forget a warm sleeping bag for those cold, star-studded, blue-sky nights. You may find as I did that whiter, greener environments are filled with more life, there's nothing like the desert to make you feel alive.

Cruising with Kids

by Hank Barlow

sharing a sporting life with kids is important. It's important for the parents' sanity and health and important for the kids' education.



Paul Gallaher

Couples too often give up adventure and sport when they become parents. Reasons are numerous and real. Taking a child along, especially an infant, can be a major hassle. The simplest but least satisfactory solution is to recreate separately or not at all. But a child's birth should not mean the end of adventure.

On the contrary, sharing a sporting life with kids is important. It's important for the parents' sanity and health and important for the kids' education.

I define sport as a recreational activity requiring physical effort and involving risk. A recreational activity with physical effort but no risk is a game. Tennis, golf, and base-

ball are games. Climbing, skiing, and cycling are sports. The presence of risk is desirable because of the heightened state of awareness risk creates and the resulting intensified experience. And I'm not necessarily referring to life threatening situations, just the possibility of hitting the deck due to a loss of control. Risk is the difference between gambling with money versus toothpicks, acting with something to lose vs acting with nothing to lose. Including a child in an adventure immediately ups the ante, redefining the parameters of risk.

I have skied deep powder while my infant son slept against my chest, curled up in a Snuggly under my coat. My speed was less

than it would have been without him, well within my control limits, but Mathew's presence and the consequences of a fall magnified my concentration. Falling was out of the question. Consequently the experience's intensity was dramatically increased. Riding down a mountain pass with Mathew in a trailer behind is similar. My speed is slower because of him yet my concentration is as if I were alone and at top speed.

What does Mathew get out of his non-voluntary exposure to risk? I don't really know. I do know he loves speed. One look at his face when I'm carving down a ski slope, he on my back in a backpack, makes that fact clear. His arms are held wide as if to

scoop more air into his open mouth while bursts of laughter ring in my ears. His enjoyment of the movement is pure, free of any knowledge of the risks. He either has an innate appreciation of speed or my love of speed has somehow been communicated to him. Whatever the cause, he likes speed.

Speed and risk are almost synonymous. Mathew's early introduction to speed, balance, and control will help him learn to accept and deal with risk later. Having experienced the thrill of racing downhill, he will hopefully understand the rewards of working to master a skill and persisting in surmounting obstacles, lessons valid for all walks of life.

Two of the finest family sports involving speed are cycling and skiing. But where skiing is seasonal, requires much travel, is often expensive, and with weather that can be a bummer, bicycling is inexpensive, can be done wherever you live and year round depending upon the climate, and doesn't require stormy weather for favorable conditions. And even better than simply bicycling is mountain biking.

Mountain bikes are magic carpets to a new world of adventure. They've enabled riders to leave civilization and overcrowded paved roads behind. Now they can head for the dirt, eliminating the everpresent hazards of highways. And for families, they're even better. Hugging the pavement's edge while cars whiz by at four or five times my speed is nerve wracking enough when I'm alone. But when Mathew is along, my paranoia escalates exponentially to the point that I refuse to cycle highways with him. The experience is entirely too frightening. But with fat tired bikes and trailers, families can enjoy relaxed, fun cycling.

Trailers are light, roomy, comfortable, and work equally well on pavement or off. Their only restriction is a narrow trail. Off-pavement routes when you're pulling a trailer have to follow roads. A child's seat mounted on the back of a bike eliminates that restriction but a trailer is stabler, pulls easily, and has room for all the extraneous gear kids require.

The combination of mountain bikes and trailers make backcountry family camping possible, a feat that too often eludes backpacking families due to the logistics of getting everything down the trail. My wife and I, with Mathew in one trailer and our gear in another, have cycled toured Big Bend and

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Canyonlands National Parks, the Utah desert, and the mountains around Crested Butte. Mathew loves it. He kicks back in his seat, checks out the view, and snacks on fruit while Kimberly and I pump up hills, cruise valleys, and race down exhilarating descents.

The trailers are the only way we can take Mathew on multi-day trips into the wilderness. He's too small to walk far but too big to carry in a backpack for long plus he no longer enjoys being in the pack. And, like most kids, he seems to require inordinate amounts of clothing, toys, etc. on even the shortest trips. The best solution we've found are bike trailers.

What will happen when he's too big for a trailer but too small to pedal a bike over mountain passes is a good question. One option though not a cheap one is a tandem with a child's stoker seat, a design enabling the child to participate as an equal. (A free-wheel lets the child coast even when the parent is pedaling.) Kids can learn the intricacies of bike handling and shifting by osmosis while flying down the road behind the parents.

Fortunately for backcountry cycling families, several companies build superb mountain tandems. They're expensive and the necessary modification for a child stoker seat drives the price up even more but for families who want performance, they're worth the price. Hook on a trailer for gear and you're set for backcountry tours anywhere.

The best situation of all is when your son or daughter is big enough to ride a lightweight BMX bike or better yet, a small mountain bike. The latter is a relatively recent development but a very welcome one. Be sure it's equipped with extremely low gearing. The scope of your adventures may be curtailed but they'll still be adventures. Plan a slow pace over short distances and before long, your child will be maintaining a rapid pace then, before you know it, even leading you down the trail.

Kids love tipping around BMX courses, leaping over jumps and sliding around turns. Let them loose on a dirt track heading into the forest and they'll have a ball. Until the advent of mountain bikes, parents were relegated to spectators when their kids jumped onto BMX bikes. No longer, now parents can ride the same trails. Rarely do kids have an opportunity to beat their parents in a sport. Cycling is one of those times. A child on a BMX bike on a twisting trail is almost guaranteed to be faster than a parent on a mountain bike, an enlightening experience for both parents and kids.

The older your kids, the more fun cycling becomes. Parent/offspring relationships can evolve into one of equals and friends. The shared experiences of humping up steep grades then smoking down the other side, of sharing time pulling a pack then in turn being pulled can create tight relationships between complete strangers. Those forces that bring strangers together can do as much for families.

Cycle touring can be the perfect family vacation for those seeking adventure in foreign countries, especially Europe, Australia, and New Zealand. Traveling by car or train can be pretty boring for kids. But seeing the world from the seat of a bicycle turns a vacation into an adventure that will be remembered for a lifetime.

The recollections of people I've known who cycled across Europe are spiced with anecdotes about people and villages they never would have encountered had they been traveling by car. Their kids particularly loved it. In every town they were immediate objects of curiosity to the local kids but before long, they were busom buddies, raising hell and generally being kids. Rainstorms invariably meant locals opening their doors, offering shelter and hot food. No amount of reading guidebooks will ever equal the knowledge gained through person to person contact in a foreign land.

Plus cycle touring is dramatically cheaper than any other means, often the difference between a long vacation or a short one. Especially for families. With bikes, particularly mountain bikes, families on a budget can plan extended travel vacations almost anywhere in the world. In short, mountain bikes are a passport to adventure for families willing to put themselves out on the line a

Getting your bike ready for the desert.

The single biggest problem is chain lubrication. Bill and Robin, owners of Rim Cyclery in Moab, Utah, clean their chains completely then soak them in hot paraffin. They completely clean the derailleurs then reinstall the chain. That's the only thing they've found that works in the desert. One treatment is usually good for at least three weeks. They also use a Phil Wood freewheel grease to lube the freewheels. They regularly pump enough grease in to push the old stuff right out. Then line your tires with puncture resistant liners or some such thing. Those three actions should keep you pedaling happily as long as you keep up the rest of the basic lubrication in wheels, bottom bracket, etc. Sand is insidious. No matter what you do, no matter what kind of sealed mechanisms you have, it'll get in. Just accept it and service your bike often.

Letters to the Editor

Write! Tell us what you think of the magazine if you like but what we'd really like to hear are your opinions. Opinions on bikes and wilderness, racing, components, how bikes are built, how they've stood up to the abuse you've subjected them to, whatever. Letters will be edited little if at all. Consider the letters' section an opportunity for you to say what you think, to exchange ideas with other mountain bikers, even to get into arguments if that happens to be the case. If you're holding a race or tour in your area, tell us and we'll pass the word on. And let us know what you'd like to see in future issues.

QUOTES FROM THE MOUNTAIN

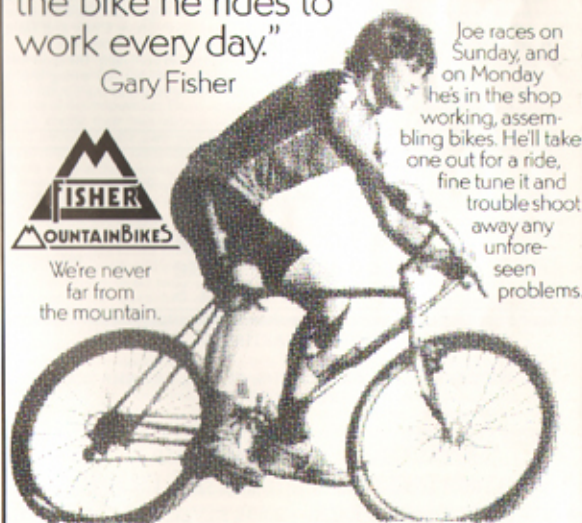
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Ross Indians by John Kirkpatrick

the first mountain bike race team

Richard clicked the door of the limousine closed and we pulled out of Kennedy Airport heading for The City. Randy Ross was dressed in black with white tennis shoes and a black Ross hi-tech T-shirt. Porche sunglasses.

"These mountain bikes are the future in American cycling," Randy said. "They're truly the American bicycle. They have latitude. They're made for everyone. We need to set the leading edge in this market and we need a fresh idea to accomplish it. I think we ought to start a mountain bike team."

"Who are they going to race against?" I said. "There are no teams."

"They'll be the first team," Randy said. "Other teams will appear. You watch. They're racing in California now. They're racing in Colorado. They're racing in Georgia. Other manufacturers will form teams. The sport will begin. The magazines will cover it."

"Do you really think you can create a new sport?" I said. "There are so many sports. I mean in California when they get a fat tire, they change sports."

"The point is fat tire bikes offer the first obvious answer to total family participation. Fat tire bikes, with their individual design modifications, make the mountain bike accessible to the very best and yet the most novice cyclist. They're fun. Their utility in the city is fabulous," Randy said. "Their off-road option is what fantasies are made

of. Yes, I think we can create a new sport. Start a team."

I returned to California in May of 1983 with a mission. Over the last three months, through friends' contacts and many telephone conversations, we picked out five guys to be the world's first mountain bike team. We were to meet in Los Angeles and then take a ferry to Catalina Island where we would get to know one another, lay ground work for the team, and shoot a series of ads. When the season broke two weeks later, we stole the show and won almost every race.

Back at Allentown, we were building the new hi-tech mountain, city, and all-terrain bicycle line as fast as we could. Back in New York, at corporate, we were going a million miles an hour advertising and publicizing the same.

Out in California, however, there were challenges. The boys (so to speak) had taken up our challenge. Tom Ritchey fielded a team. Gary Fisher fielded a team. Cunningham, Sun Tour, Specialized, and Raleigh fielded teams. By the end of the 1983 season, the tables had turned and Indian, Ross's hi-tech mountain team, no longer were winning every race. The Indians were good, strong, and aggressive but there were other guys, like Steve Cook and Dale Stetina, who laid waste to our best.

But Randy had been right. The sport had begun. Within one year, six strong teams had hats in the ring and the circuit was growing.

1984 turned into a real shoot-out. Gant appeared on the scene with a big series. Specialized introduced a ferocious Bill Woodall supported team. Sun Tour introduced the Pacific States series. Colorado was beginning to develop the big race series. The Rockhopper in Northern California drew a field of over 500 riders and back in New England, we staged the first big coast race. The magazines were now giving fat tire bikes serious ink.

Back in Allentown, we were making a lot of hi-tech bikes. Back in New York, advertising and marketing were on the run with guns full blazed. But out in California, we were getting slaughtered. We always had a man or two in the top ten which is no small accomplishment. But we were not winning. There were four or five guys on other teams who consistently made the Indians eat crow.

We replaced two riders mid-season and our results steadily improved. By the end of 1984, we were back on a respectable footing with an overall third in Crested Butte and fifth and sixth at the Nationals. The Indians were the only complete team to finish the Nationals with two riders in the top ten and four in the top fifteen.

And so now the '85 season is upon us. The '85 Indians consist of Don Cook, Aaron Cox, Joe Sloup, Jim Harlow, Don Davis, Clark Roberts, and Cindy Whitehead. We are ready for the battle in 1985.

The Environment

Crypto what?

Remember: water is a luxury in the desert.

Since the effects of backcountry use are most severe in drier country, there are concerns particularly appropriate to the canyon lands.

1. Choosing your route

a. Walking and cycling in the canyon lands is an art which is perhaps never fully mastered but can be continuously refined. A major factor in this art consists of avoiding the fragile "cryptogam" soil, the dominant ground surface in many areas.

Cryptogam ("hidden reproductive organs") is a combination of mosses, algae, lichen, and fungus. Reproduction is by spores rather than seeds or flowers. Because it's a self sustaining biological unit requiring no nutrition from the soil, Cryptogam grows on barren ground as a pioneer species. Its anti-erosional and nitrogen-enriching abilities prepare the ground for a succession of future plant communities. Cryptogam looks like soft lumpy soil, often with a gray crust. It's unique to semi-arid environments and is one of the most delicate features found there. A mature cryptogam garden can be destroyed in a single step, turning to dust what took 50 to 100 years to develop.

b. Routes following slickrock or sandy washes are the most desirable. They may be more circuitous but are fun and interesting, leave no marks, and do almost no damage to local plant communities.

c. Established game and human trails are acceptable routes if they seem permanent and well placed. The complex and confusing works of parallel and crisscrossing trails that seem to develop should not be reinforced.

d. Because the passage of even one person will make a visible trail in some soils, groups should walk or ride in single file, using the same footprints and tire tracks.

e. Vegetation is dry and brittle, is highly susceptible to trampling, has fought hard to be there, and should not be walked or biked on.

f. Historic and prehistoric artifacts should be left in place for others to see and enjoy.

2. Locating a campsite

a. Preferred campsite locations include slickrock benches, the bottom of washes (in dry weather), sandy areas, and under overhangs.

b. Use existing campsites whenever possible to minimize your impact.

c. Camping near water holes or on access routes to them blocks wildlife from what may be their only source of water.

3. Fires

a. Driftwood and random flood debris are the best source of firewood.

b. Do not use dead "local" wood because it will eventually decompose into soil, possibly providing the physical structure to stabilize other soils and materials in different stages of decomposition. Pinon and juniper trees create their own microenvironment and develop their own soil in a cycle requiring available resources. There is no extra wood in this system.

c. Dead pinon, juniper, and cottonwoods trees also have scenic value and should not be torn apart.

d. If an evening fire is left to burn overnight, only ashes will remain in the morning to be easily and invisibly dispersed. For this reason, avoid making fires in the morning. Fires quenched with sand or water will produce long lasting coals and piles of blackened earth which are difficult to disperse effectively.

e. Rocks surrounding a fire pit have little wind or spark protection value and remain scarred black for a long time, an unsightly view for future visitors.

f. Fireplaces in dry washes will disperse after the next thunderstorm.

g. When a sandy wash bottom isn't available, a large slab of sandstone or exfoliated rock can often be found to serve as a fire base. The ashes can be scattered in the morning and the rock replaced leaving no visible fire scar.

4. Disposing of Human Waste

a. There is very little humus in arid

regions. Mostly it exists under and around individual trees and bushes. Disturb stabilized soil structures as little as possible when digging a shallow hole.

b. Human wastes do not decompose in the predominantly inorganic, sandy earth of arid regions. It will only dissipate and filter through the ground along natural drainage routes, eventually ending up in washes, water pockets and streams. Make latrines as remote as possible from water drainages.

5. Washing

a. Soapy, dirty water should be thinly dispersed where there is organic soil. Water dispersed elsewhere will eventually find its way into washes and water supplies without being filtered or broken down.

b. Never wash directly in a water hole or stream; always wash in a pot of water away from the water source.

6. Water Holes

a. A good spring, seep, or water pocket is often the only water supply for many square miles. It may be only a convenience to us, but local wildlife depend on it for their survival. It is important not to pollute any water and not to over-consume or waste it. It's a very finite resource.

b. A seemingly large tank with abundant water in it may exist only because of a lucky combination of shady location, small drip, occasional flood, or because input and evaporation are delicately in balance. Consumption is depletion and water should not be used unnecessarily. Other users are counting on it.

c. Most desert water sources have no mechanisms for replacement or purification; hence pollution is cumulative. Use only clean cups or pots to dip from water holes; even clean hands will transfer some salt and oil into the water.

d. Judge your type and volume of water consumption by the replenishment rate of the water supply. Use small pockets for drinking only. Springs may have enough water to use for washing dishes (away from the water of course.) Flowing streams may be adequate for washing clothes and bodies. Remember, water is a luxury in the desert.

This information was compiled from the Colorado Outward Bound School instructors manual.

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they've been tried with so far. The lugs just hang up on the teeth too much. We haven't tried them with a platform design yet and they could work great with that.

But without toe clips, the shoes are just the ticket. The lugs seem to grip the pedals. The soles' stiffness transmits all of your pedaling power into the cranks comfortably. Then when you have to walk or if you've simply used the bike to gain access to a hike through the mountains, you'll have as good a hiking shoe as is made, even better than most.

They also have two notable advantages. One, they come in widths, narrow, medium, and wide. That alone is pretty unique. The second is a built groove around the sole for the beading at the lower edge of Berghaus Yeti gaiters. The result is a tight fitting gaiter insuring complete protection from water, snow, and scree. No more wet feet! What a blessing. The gaiters are easily put on and off so if as stream crossing appears, slip off the gaiters then pedal across, arriving on the far shore with dry feet.

Now, if the shoe was only available with a reverse lug sole for pedals and toe clips, we'd really have something.

TOURING SHOES

Another option for backcountry cycling are regular touring shoes. Their only drawback is the lack of any kind of cleated sole for walking. Touring shoes are designed for the highway cycle tourist whose walking will more than likely be done around towns and cities. Consequently they tend not to be built as ruggedly as mountain bikers need. Rarely does a road rider have to ford streams, pedal and walk through mud bogs, and push the bike up gravelly jeep roads, possibly even having to cross an occasional patch of snow. But then mountain bikers aren't having to do that all the time either, just part of the time. So the touring shoe presents an attractive option.

NIKE VELO

The Velo is a touring version of the Discovery. The uppers are a perforated suede lined with canvas to reduce stretching. The sole is not lugged with a herringbone pattern on the forefoot for traction on the pedals. A clear ridge similar to the one on the Discovery is incorporated into the sole but again, no one seemed to notice its presence. Traction when walking is pretty good due to semi-cleats from just behind the clear ridge back to the heel.

Except for the reverse lugs for walking, everyone seemed to feel that it was six to one, half a dozen to the other as far as which shoe was better for mountain biking. Both the Discovery and the Velo have padded tongue and collars, reinforced heel counters, and are built on the same last. Hard core mountain bikers would probably be happier with the Discovery while less dedicated outbackers might like the touring shoe, especially if they also road ride quite a bit.

AVOCET MODELS 20 & 30

Both models are pretty similar, the primary difference being a stiffer sole in the Model 30. The Model 20 is a more comfort-

able walking shoe with uppers made from split leather and nylon. Both models' soles are a multi-fiber lamination with a spring steel shank for protection from hard pedal edges. So far, those who have tried this shoe out have been pleased, as long as they're riding with toe straps. Without toe straps, the feet slip off the pedals too easily. The lack of sole lugs has definitely been missed when walking but the riding comfort and advantage of a shoe designed specifically for cycling has made up for that most of the time. The exception is during high mountain rides entailing some walking on loose scree, rock, and mud.

The Model 30 is closer to what you'd might expect in a cleated racing shoe. The sole is stiffer than the Model 20's but comfort is still the shoe's priority objective. The Model 30 shares with the 20 a patent pending design, the Avocet NonStretch Heel Strap. The strap runs from the built in sole cleat ridges under the ball of the foot around the Achilles tendon. The purpose is to eliminate any heel stretch during the pulling upstroke. Where the Model 20 has nylon, the Model 30 has a mesh material for added breathability and instead of split leather, top grade leather for durability.

Both models are excellent cycling shoes but only time and use will tell how they'll stand up to the rigors of mountain biking.

RUNNING SHOES

Running shoes are too soft for biking. Plus they're often too wide to slip into clips. Nevertheless, many a mountain biker uses them anyway. We've been testing a pair of Nike Escape running shoes. In comparison and the consensus is that cycling shoes are far superior. The Escape was designed for mountain trail running and we thought perhaps it would work out well for cycling but it didn't. The sole's softness absorbs too much energy plus the waffles are very difficult to slip into the pedals with clips. Without clips, they're not bad because the waffles give good purchase on the pedals but they're just too soft. Additionally, the hard pedal edges can be felt through the sole. But they were great for trail running.

CONCLUSION

These are only a very few of the shoe options available for mountain bikers. Shoes range from cyclocross versions like the Rivat to full blown hiking boots to flip-flops. We'll continue to report on shoes in future issues, particularly as more and more models designed for mountain biking become available. For instance, we have already heard Beta Shoe Company will be coming out with a mountain bike shoe soon. Stay tuned.

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Thomas Prehn

Jumping into the Gant Series

course. Three racers wanted the same position on the line. I chose the other side of the starting line. I might have to travel a few extra yards to the first mark but I'd hopefully avoid getting tangled up in someone else's handlebars.

Years of competition teaches racers to keep eyes and ears open. Every fragment of knowledge is added to the warehouse of information and analyzed. Before a United States Cycling Federation race, I study the course, searching for the fastest line through corners, noting any bad pot holes or rough pavement, even looking to the skies for a weather forecast, then I study the competition. I was dead serious about this race now. Tomorrow didn't matter. This was competition. We were racers pulling out all the stops. I had studied the course and was familiar with all the exposed roots, slippery grass, soggy ground, and sand traps.

I was a rocket primed and ready to blast off. The next several seconds seemed to take forever. I studied every move and expression of the race official for any sign he might unexpectedly fire the gun. His command of "RIDERS READY" was my signal for "IGNITION.....BLAST OFF!" Bang! The gun shot.

A fast start and my foot went right into the toe clip. "Great," I thought. A split second later, I realized my start was no better than that of half my adversaries. My outside line to the first corner wasn't panning out. There were too many riders to the right of me bumping and banging into one another, jockeying for the lead. Worst of all, a few were ahead of me. Another racer to my left kept elbowing me into the mass of spinning wheels and flying dirt. With the palm tree approaching fast, that guy was getting on my nerves.

I don't really think in situations like that. There is no time for logical maneuvering. It's all instinct; how hard to push, how close to ride to another competitor, how much to break before corners, how much traction the tires have. Unfortunately for me, this was my first mountain bike race so this was on-the-job training.

As the cluster of racers reached the corner and the pesty rider on my left hit the palm tree, my outlook for victory wasn't bright. I was sixth around the corner! The group was getting strung out in the twisty narrow and the leader was slipping away. And now the rider in front of me was trying to pass the next line on the inside of a corner! "THERE'S NO ROOM!" I screamed to myself. "ARE YOU CRAZY? YOU'LL CRASH AND THAT WILL BE IT FOR ALL OF US!"

There was a loud bang and puff of dust as the rider being overtaken was hit broadside and shot into the snow fence. I was now in fifth place but the "hit and run" offender had a front blow out. Around the next tight corner, his front wheel washed out and he exited under the fence. I was fourth.

I moved into third uneventfully as the course turned onto the soggy waterflood.

"Pass him quickly. Pass him quickly...before the sand pit." I thought to myself of the second place rider as I built up some speed. Just before I made my move on the inside, the rider faltered and weaved in the mucky grass. If he fell into me, we both would take a swim in Biscayne Bay. It was time for defensive action. As I sped by, I tucked my right shoulder and plowed into his ribs. The hit probably kept him up on his bike but sent him into deeper marsh and out of competition with me.

Only one more competitor separated me from the lead. His distance was formidable as I studied his approach to the sand pit. I had practiced both riding through the trap and dismounting on the run during warmups. But I hadn't had much luck with riding through it and dismounting was much slower. I watched the leader ride approach the sand obstacle.

PANIC! He's riding through the sand! I don't know if I can do that safely."

I looked down at my path and then back up at the racer just as he was catapulted over the handlebars with his front wheel buried in the sand. I picked out a line through the sand and the scrambling mountain biker, dismounted at about 10 mph, took four giant steps, threw myself back on the Schwinn Sierra, all without missing more than a few pedal strokes.

I was glad this wasn't my bike. I could imagine the owners of Mack's Cycles in Miami cringing each time they saw a bike flip into the air or disappear in a hail of mud and dirt around me.

All that action had taken place in just half a lap, an eighth of a mile! The remaining lap and a half was uneventful. Oh, I got a bit sideways bouncing off some roots and my rear wheel slid out on one of the corners but I got into a rhythm and was unchallenged to the finish. I crossed the line gasped and totally expended but also exhilarated.

I had won the race though not the prize. Our careening and crashing about the first palm tree made for a slower time than in the qualifying heats so the Fuji mountain bike wasn't mine to take home. But a cup, a bottle of champagne, and the thrill of a completely new sport had me beaming. What an experience! As I rode around the course warming down, my mind was still racing. "YES. YES. If I can just get another bike...train on it all week...the Gant Challenge next weekend in Tampa...I could race the Pro division...Yes...It's longer...better suited for me...MAN!...What a race!"

Thomas Prehn is a long time member of the U.S. National Cycling Team, and has been a regular contributor in a variety of cycling magazines.



Lou Dawson on the Slickrock Trail photo-Paul Gallaher

Cycle Company of America. Their glossy, multi-page, four-color inserts are impossible to miss. Of all the insert pictures, the double spread of two mountain cyclists, bikes laden with bulging front and rear panniers, she checking a map, he looking up the valley through binoculars, is the most arresting. I don't know where the picture was taken, but wherever it was, the setting is magnificent. In fact, that picture pretty well states what mountain biking is all about, adventure cycling in the backcountry.

Alas, if only Raleigh mountain bikes were as clearly on the leading edge of what the sport is all about. They're good bikes, but compared to the statement that picture makes, they fall short. Raleigh jumped into the mountain bike market with their advertising department's guns blazing. A full line of bikes including a flagship model named after Crested Butte, this magazine's home

town and the spiritual home of mountain cycling, hit the streets with a bang.

But while most of the industry has been busily redesigning their mountain bikes to meet the changes knowledge and riders have demanded, Raleigh has stayed with what they've got. What they've got is the tried and true "California geometry," a direct takeoff from the 1930's Schwinn Excelsior. The 68 degree head tube, 70 degree seat tube, 43 inch wheelbase, and 18 inch chainstays (19 inch frame) are classic.

Raleigh isn't alone in using this classic design. No less a frame builder than Tom Ritchey builds bikes with almost the same geometry. So does Gary Fisher of Fisher MountainBikes, the leading mountain bike racing team last year. Two years ago, the "California geometry" was state of the art. But things have changed. Both Ritchey and Fisher have steepened their seat tubes, as much

as 3 degrees on their racing bikes, while shortening wheelbases and chainstays a bit.

The differences seem slight but when 1/8 inch changes are noticeable, the results can be dramatic. Not that there's anything wrong with relaxed angles. On the contrary, the ride such geometry provides is smooth, stable, and predictable, especially in downhills, and many a rider and builder swear by them, including Raleigh.

That long front end swallows unexpected trail obstacles as if they're hardly there. Climbing traction is fine due to the relatively long front center and short rear/center and in downhills, particularly for those who like all-out, gonzo descents, the Raleigh cruises. Just brace your arms against the handlebars and hang on. Throw it into a sliding turn then wait while it slides until enough speed has been scrubbed off for the bike to suddenly right itself and shoot through the turn. The geometry may be currently considered out of style but it works and works well.

The main tubes are triple butted, 575MT, oversized, chrome-moly tubing with high tensile stays and chrome-moly forks. Finish work isn't overwhelming and the tig welding looks a bit coarse but it works. Components reflect the bike's modest price. Brakes and levers are Shimano AT-50, shifters Suntour LD-2800 with Suntour AG Tech derailleurs, cranks Takagi AD with 50/44/30 chainrings. A six-speed freewheel, Sanson sealed hubs with Araya 7X rims and combination dirt/street 2.125 tires round out the running gear. The saddle is a wide, soft Raleigh model, perfect for those whose butts aren't used to bike riding.

And that's who the bike is pretty much intended for. It's an entry level mountain bike but better built with better components than the lowest priced models.



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SERIES—Ft. Collins, CO (R) (303) 484
0682
- 7/20-21 CANAAN MOUNTAIN**
SERIES (OT, R) (304)259-5606
- 7/21 NORBA ROCKY MOUNTAIN**
SERIES—Boulder, CO (R)
- 7/21 THE GREAT FLUME RACE**
(R) (702)632-0726
- 7/28 NORBA ROCKY MOUNTAIN**
SERIES—Colorado Springs, CO (R)
(303)475-0149
- 8/4 BIGFOOT CHALLENGE—**
Willow Creek, CA (R) 707-443-0871
- 8/4 NORBA ROCKY MOUNTAIN**
SERIES—Denver Area, CO (R)
(303)759-3178
- 8/11 NORBA ATLANTIC STATES**
SERIES—Plymouth, NH (R) (503)759-
3655
- 8/18 NORBA ATLANTIC STATES**
SERIES—Baltimore, MD (R) (301)59-
2453
- 8/24 CASCADE CRUISE—Bend,**
OR (R) (503)389-4224
- 8/24 MOSQUITO PASS CHAL-**
LENGE—Fairplay, CO (R) (303)449-
8896
- 8/25 OREGON OFF-ROAD CHAM-**
PIONSHIP—Bend, OR (R) (503)389-
4224
- 8/25 NORBA ATLANTIC STATES**
SERIES—Helen, GA (R) (404)878-2851
- 9/1 NORBA ATLANTIC STATES**
SERIES—Somerset, PA (R) (412)327-
6430
- 9/6-8 NEW ENGLAND FAT TIRE**
THREE-DAY STAGE RACE (R, OT)
(212)634-8400
- 9/8 MOUNTAIN MANIA—Sacra-**
mento, CA (R) (916)739-6931
- 9/13-15 CRESTED BUTTE MTN.**
BICYCLING ASSN. STAGERACES
(R) (303)349-6761
- 9/16-22 FAT TIRE BIKE WEEK &**
STAGE RACE (R, T, OT) (303)349-6761
- 9/21-22 CANAAN MOUNTAIN**
SERIES (R, OT) (304)259-5606
- 9/28-29 NORBA NATIONAL**
CHAMPIONSHIPS (R, OT)
Santa Barbara, CA
- 10/5 ROAD APPLE RALLY—**
Farmington, NM (R) (505)327-0376
- Other event - see page 23



RETURN TO CIVILIZATION SILENTLY.

New Tire Width Works To Your Advantage

Conventional 1.75 mountain tires have insufficient volume to protect against bottoming over bumps.

These narrow tires also sink in loose dirt. With any amount of mud, wider 2.125 mountain tires clog between brakes, frame stays, and forks.

The Ritchey QUAD 1.9 is a logical compromise that eliminates all these problems. And the narrower cross-section offers lower rolling resistance. Recommended inflation — 45 psi to 80 psi.



New QUAD 1.9 Mountain Tire

Extraordinary GripStrip on Ritchey's new QUAD 1.9 mountain tire eliminates nerve-racking vibration over paved asphalt. A continuous chain of offset QUAD lugs creates an endlessly quiet plateau. Offset lug pattern improves grip in loose dirt.



Engineering for Cyclists

Continuous QUAD™ Strip Eliminates Road Vibration

Other off-road tires have isolated lugs positioned in the center of the tread. At any speed, you hear and feel the tires rumble.

The QUAD 1.9 doesn't rumble because the isolated lugs are offset — not in the center. The crown of the QUAD 1.9 is an endlessly quiet plateau. The offset lug pattern offers better grip in loose dirt. But, for the first time, trips to and from the wilderness are quiet and smooth.

