

MOUNTAIN BIKE MANIA

MORE THAN A BUMPY
HISTORY

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Mountain biking began when the first cyclist ventured onto a dirt road sometime during the nineteenth century. In 1884, Thomas Stevens rode, dragged, and carried a 70-pound "penny-farthing" bicycle from the West Coast 3700 miles to Boston over a period of four months. The best roads that Stevens saw on his journey were what we would now consider the worst roads in existence.

No doubt youthfully exuberant riders had used balloon-tire bikes for coaster vehicles on dirt roads since their introduction in 1933, but for the most part the only modification was removing all extraneous parts that would likely fall off, such as fenders, chain guards, "tanks," baskets, racks, horns, and lights. In California during the early seventies, stripped-down one-speed balloon-tire bicycles became popular for local transportation at the beach areas of Southern California. In Northern California, at the same time, similar bikes were used for wild downhill rides on the remote dirt roads of Marin County.

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By 1976, a small group of Marin County road cyclists were using old one-speeds for errands as well as short rides on dirt roads. It was at this point that the mountain bike movement began to take shape. The introduction, circa 1976, of derailleur gearing systems borrowed from road bikes made it possible for strong riders to pedal their 50-pound machines up hills. Riders then began expanding their range from downhill coasting to real exploring. Other elements were added to the bikes: drum brakes from tandems, thumb shifters from inexpensive five-speeds, motorcycle handlebars and brake levers. The result was a bike that could then be found only in Marin County — the modified "clunker."

Anything that moves will eventually be used in some sort of speed contest, and "clunkers," as they were then called, were no exception. In October 1976, the first races were held for these bikes on a terrifying two-mile downhill run now known as Repack. The name derives from the maintenance necessary for a coaster

brake after a single smoking run on the course, which descends 1300 vertical feet. All the grease boils out of the hub, and it must be "repacked." The races were unofficial — no permits, no insurance, no helmets and no one responsible. The format was like that of a ski race; riders started at intervals and raced against the clock. A simple but effective timing system gave results down to 100ths of a second on hand-held digital timers.

Perhaps more than any other single factor, the Repack races brought together all those in the area who were involved in off-road cycling. The interaction stimulated comparisons and evaluation, and the competitive aspects quickly separated the effective innovations from those that were not up to the rough treatment. By sorting out the best-handling bicycles, the races paved the way for the next step in the development of mountain bikes.

One particular style of frame became popular among the Repack racers, a model called the Schwinn Excelsior X, which was also sold under several other names. Unfortunately, even the sturdiest of the old frames were no match for the treatment given them on Repack, and riders found that they had to spend time and money replacing their frames with increasing frequency. In 1977, Joe Breeze, who held the second fastest time on Repack and was also a frame builder, took one of the most important steps in the movement. Persuaded by several friends, he agreed to build frames using the geometry of the popular Excelsior X but also modern materials and construction techniques.

By late 1977, he had finished the first ten bikes. Discarding the heavy drum brakes, he used brazed-on cantilever brakes. The tubing was chrome moly, which is found in fine racing bikes — a vast improvement over the cheap carbon steel tubing used in the old bikes. The geometry was the same, but Breeze used straight tubing rather than the curved tubes used in the Excelsior. Although Breeze's bikes weighed about 35 pounds, compared to the old "tankers" they were ultra-light.

Backyard builders can only do so much, however. A frame can be built in a garage, but most of the other elements have to be purchased through regular channels, including such necessities as rims, tires, derailleurs and shifters. More than anything else, the off-roaders wanted better rims

and tires to replace the heavy relics that they had been using. By early 1979, several Japanese manufacturers were making aluminum rims in response to pressure from the BMX adherents who were beginning to race bikes with 26-inch wheels. The off-roaders eagerly snapped up these rims, which replaced the old steel ones and reduced the total weight of the bikes by four pounds.

An old adage among road racers is, "An ounce off the rim is as good as a pound off the frame." Reducing rotating weight is the most effective way to improve bicycle performance, and while road racers worry about reducing this weight by mere ounces, the dirt riders had made a quantum leap with the introduction of rims that were two pounds lighter. Shortly afterward, manufacturers introduced the first high-performance balloon tires, which reduced rotating weight by another pound per wheel. The vast improvement in performance brought about by the introduction of lighter and stronger frames and wheels was the most important factor in the evolution of the modern mountain bike.

In 1979 Tom Ritchey, a well-known racing frame builder, met Joe Breeze and saw his new bike. Ritchey, who had been riding dirt roads and trails on modified road machinery, saw the possibilities and within a month turned out his first three mountain bikes. Adding his own ideas to Joe's, Ritchey produced a bike whose style has now been imitated by nearly every manufacturer of mountain bikes. Among Ritchey's innovations were the triangulated handlebars that are now found on most mountain bikes, the open diamond frame (Breeze's had an extra brace in the frame), and curved, tapered fork blades. In later models, Ritchey introduced a wider spacing for the rear hub; this measurement has become standard for mountain bikes.

Ritchey's custom bikes drew a strong following among riders who wanted good off-road equipment. The market was small and the bikes were expensive, but as more riders took to the hills, demand outstripped supply. In 1980, Mike Sinyard, owner of Specialized Bicycle Imports, bought several of Ritchey's bikes and showed them to Japanese bicycle manufacturers. In a short time, mass-produced versions of Ritchey's designs hit the trails, such as the popular Stumpjumper bicycle. Other manufacturers were not far behind. In one

1980 bicycle trade show, four displays included mountain bikes; one year later there were 15; and now virtually every bicycle company produces some sort of balloon-tire "all-terrain" model.

Mountain bikes generally have the following features: fat tires on 26-inch wheels, upright handlebars, handlebar-mounted "thumbshifters," motorcycle-style brake levers, wide-range gearing with a triple front sprocket, and a seatpost quick-release, which is useful for adjusting saddle height in different situations. Some features depend on use, however. A bike used primarily on the street, for example, may have narrower tires with a smooth tread, while a bike set up for dirt would have the widest and knobbyest tires. Gearing can be modified to fit the owner's geographical area, since many parts of the country lack sufficient hills to challenge the ultra-low gearing standard on most models.

Most road cyclists think of balloon-tire bikes as the ones they rode as children and wonder why anyone

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would want anything that slow or heavy. But, to the contrary, a fine off-road bike is every bit as sophisticated as its road racing counterpart, and although it sacrifices a small amount of acceleration because of heavier wheels, it rolls down the road just as fast as a road bike if the tires are inflated at similar pressures — about 70 to 80 psi. Because they have longer wheel bases and larger tires, mountain bikes can easily outcorner road bikes, and mountain bikers take great pleasure in dropping "skinny-tire" or "off-dirt" riders on tough descents. Perhaps the most revealing comment of first-time riders is, "I haven't had this much fun on a bike since I was a kid."

The introduction of mass-produced mountain bikes has produced an explosion in popularity. They are now the hottest part of the bicycle market, with a growth rate of 100 percent predicted for 1984. Because they are comfortable, stable and rugged, they are beginning to penetrate all parts of cycling society. Most will

never see a dirt road; they will be used for utility riding or commuting. Mountain bikes are being adapted as city bikes.

With the dramatic rise in the popularity of mountain bikes, off-road racing has taken off. No longer confined to gonzo downhill runs, mountain bike racing has become respectable. It ranges from short downhill races to multi-day events with tests of all aspects of the cyclist's abilities, such as strength, handling, speed or guts.

In some areas, where the terrain permits, the bicycle stages of triathlons may be conducted off-road. An example is the fall Tri-Cross 4-Lungs in Santa Rosa, California, sponsored by the American Lung Association. It features a nine-mile off-road ride.

Off-road bicycle racing combines elements of cross-country ski racing and triathlon riding, and has little in common with mass-start road racing. In a mass-start road event, the riders are prisoners of the group, which they use to help beat the wind, and which they exploit tactically to win. Drafting and timing are as important as strength. Luck is also a big factor.

Although a road race is an intimidating affair for novice riders, who for the first time may have to ride at high speeds in close company, an off-road race is an ideal way to enter the sport. Many people take part in races just for the ride, with no thought of winning. The speeds of off-road races are slower, which precludes effective drafting and prevents the formation of packs. Strategy is confined to pacing oneself while demonstrating adequate skill in handling. Like triathlons, performances in off-road races may be measured against a given course, rather than depending on the pace of the group as in a road race.

In areas where bicycle road training is difficult during winter months, one excellent way to stay in shape is on a mountain bike, whether it is used as a heavy-duty road training vehicle or on a cross-country challenge. These days it seems as though a mountain bike is an essential part of every rider's equipment, unless he or she enjoys three months of roller-riding. Knobby tires and beefy brakes make these bikes the only ones that can be trusted in deep snow or slush. But a set of fenders may also be essential, because big tires throw a lot of wet stuff around.

In areas of the United States where it is popular, the European winter cycling sport of cyclo-cross is an ex-

citing challenge for mountain bikers, even though the courses are generally laid out to favor the traditional European "skinny-tire" cyclo-cross bikes. Cyclo-cross is usually conducted on a short lap course of less than a mile, and unlike mountain bike racing, competitors are permitted unlimited equipment changes and substitutions. On a short course, riders are never far from their spare wheels and extra bikes, although most mountain bikers disdain such amenities.

Cyclo-cross is a very demanding sport, considering the short distances covered: 15 miles or so in races lasting about an hour. The courses always include obstacles that require dismounting and carrying the bike, often up steep and slippery hills, over logs and through snow or mud. Dismounting techniques, handling and running ability are stressed in cyclo-cross, and aerobic fitness is indispensable. Upper body strength is important, because the rider often has to carry the bike on his or her shoulder and may be forced to scramble up steep obstacles.

Last year a national mountain biking organization was formed. The National Off-Road Bicycle Association (NORBA) was an inevitability. In addition to its activities as a lobby group on behalf of off-road cyclists, NORBA provides standard rules and insurance coverage for sanctioned events, including tours as well as races. The racing circuit has events in all parts of the country from early spring to the fall, culminating in a NORBA national championship in September.

With major manufacturers such as Ross jumping in on race sponsorships, and with no rules restricting professionalism (these riders have no Olympic goals), money prizes of \$1000 and up are appearing and are snapped up by riders from company teams. At the same time, there are nonprofessional categories by age and sex that allow nearly every rider to compete against his or her peers. One popular event is "pro-am," in which each rider puts up \$10 to \$20, with 100 percent payback in prizes.

One warning is in order for those who are in the market for a mountain bike: don't try one that you can't afford. And after you get one, don't let other family members ride it unless you can afford mountain bikes for them too. **T**

