



# KINGS OF CARBON

*Ibis Cycles are 30 years old this year. We find out how their gamble on carbon fibre changed mountain biking forever*

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**S**cot Nicol and Ibis Cycles must have a crystal ball. In 2001, carbon fibre mountain bikes were ridden only by World Cup cross-country racers. But Scot and partners Tom Morgan, Hans Heim and Roxy Lo believed that carbon was key to building the best bike.

Ibis Cycles have been making bikes since 1981. In 1988, Scot made one of the first carbon mountain bikes using a steel rear triangle, tapered machined lugs

and carbon tubing. (Ibis also kick started titanium manufacturing, with their Ti Mojo, in 1994.)

In 2001, Ibis decided carbon's popularity in road biking could be used for mountain bikes. They spent over three years working on a design that became the popular Mojo Carbon. Now they only use carbon fibre, setting the standard for the entire industry.

**MBUK: How did you get started off making bikes?**

Scot Nicol: I've always been an avid cyclist but my turning point

was meeting Gary Fisher, Charlie Kelly and the original Marin gang in 1980. Through them I met Joe Breeze and Charlie Cunningham – two great bike builders – who taught me the ropes. I built myself a frame in 1981, people saw it and asked me to make them one.

**You pioneered the way the industry uses steel, titanium and carbon fibre. Why carbon?**

With traditional materials, such as aluminium or steel, you can only create 'stick bikes' using two tube triangles. With carbon »



**STAR TURN**

**THE LOPES FACTOR**

**Brian Lopes** is a multiple World Cup winner and US National Champ. He's been with Ibis since 2008, where his riding has answered lots of doubts about the strength of carbon MTBs.

"A few days after Brian got his Mojo, he sent us a picture of him sending a 30ft gap," Scot says with a smile. "When anyone questioned our bikes' strength we just showed them that."

Shortly after Brian joined Ibis, they released the 160mm (6.3in) travel Mojo HD (heavy duty). Brian's put it to good use, winning his fifth consecutive AirDH at last year's CrankWorx on it. He also uses the bike to race Super D and enduro downhill all over the globe.

Brian's role with Ibis goes beyond racing too. "He gives us very detailed information on the bikes he tests," Scot says, adding that he has "direct involvement" in how they are made.



**IBIS TIMELINE**

**30 YEARS OF INNOVATION**

Breaking away from the "tyranny of tubes" by building carbon fibre mountain bikes was the pivotal point in Ibis Cycles' 30-year career. And the company keeps getting bigger and bolder...

**1981** A winter of apprenticing under Joe Breeze and Charlie Cunningham was followed by Scot Nicol making his own frames in Mendocino, California.



**1983** Scot's custom geometry bikes were built around the rider's body. Customers chose paint, braze-ons, stem length, angle and components.



**1987** Scot, one of the first trials riders in the US, designed and created a trials bike for himself with a 20in rear wheel and 24in front wheel.



**1986** A mainstay of the company was the Ibis Tandem, which used the Uptube design borrowed from Rick Jorgensen's Tango Tandem.



**1988** Scot's first carbon bike. It had a steel rear triangle, tapered machined lugs and carbon tubing made from the same material that Ibis use now.



**“A carbon frame is the perfect weapon for an aggressive all-mountain ride”** SCOT NICOL



» fibre you can connect the dots between the head tube and seat tube any way you like.

**How did you develop carbon fibre production techniques?**

First we created a model for the frame on a computer. We spent over 1,900 hours in a drafting program to get it perfect. Next we had to find a factory to build it. That was difficult because there are very few factories in the world capable of executing such a complex carbon design, let alone one that believed in us enough to take the chance. The Mojo has more wraps of carbon in its bottom bracket than a road bike has in its entire frame. Eventually, we found one willing to build it, and we've worked intensely with them to develop the best moulding processes for our bikes.

**How has carbon created a new riding experience?**

Besides being very light and strong, carbon is great because of its anisotropy. Carbon fibre behaves differently in different directions. The way we lay up the carbon fibre for our frames makes them stiff torsionally, but vertically compliant, so the bike doesn't flex when you pedal but has a super soft ride.

carbon fibre. The introduction of the Mojo in 2005 changed the whole perception of carbon in mountain biking. Before that bike, people thought carbon fibre wasn't strong enough for mountain bikes. Once we got Brian Lopes on our bikes, people saw that a carbon frame was the perfect weapon for aggressive all-mountain riding.

**How have Ibis pushed the use of carbon fibre in the mountain bike industry?**

Before the Mojo Carbon, only a few carbon mountain bikes existed, and they were specific to World Cup XC racing. We had a vision for a trail bike that had great geometry and longer travel but still climbed like a hardtail. The only material that could allow us to make that was

**How do you plan to advance use of carbon fibre in future?**

We learned a lot about carbon fibre production in the process of creating the Mojo. Now we can apply this knowledge when designing new bikes. When we made our long-travel HD model we created a stiffer, stronger frame that hardly weighs more than the Mojo. Our main goal is to make our next bike better than the last. ⚙



**1994** A butted titanium version of the Mojo, called the Mojo Ti, was released.



**2001** The Silk Ti was a pivotless softtail with a greater wheelbase than traditional full sus bikes. Ibis manufactured its own elastomer-sprung shock.



**2010** Ibis revealed the Mojo HD at Sea Otter. The 160mm (6.3in) travel all-mountain frame weighs only 0.45kg (1lb) more than the SL.

**1992** The Mojo hardtail was made. The steel bike was built with Moron tubing – it had 'more on' the ends for strength and less in the middle to save weight.



**1996** Designed by John Castellano, the Bow Ti was the only full suspension frame built that didn't use pivots to separate the front and rear triangle.



**2005** Ibis took the Mojo Carbon to Interbike. The 140mm (5.5in) rear travel trail bike got rave reviews and changed acceptance of carbon MTBs.

