

Boo RS-R

Is bamboo simply the reserve of the quirky and eccentric or is it a real contender as a race winner?



Words *STU BOWERS*



THE SPEC

Model

Boo RS-R

Groupset

Shimano Dura-Ace 9000

Deviations

Shimano Ultegra CX77
mechanical disc brakes

Wheels

Zipp 303 Firecrest Disc

Finishing kit

Enve carbon bar,
stem and seatpost, Selle
San Marco Concor saddle

Price

\$2,999 frame, approx
\$9,500 with spec as tested

Contact

boobicycles.com

Having tested a large number of carbon, steel and aluminium bikes in these pages over the past 25 issues (and 18 years prior to that), this one's a new notch on the shed door – for me and for *Cyclist*. The Boo is, as the name suggests, predominantly made from bamboo. Far from being just the haute cuisine of pandas, this grass happens to be the fastest-growing plant on earth, and actually re-grows after harvest without the need for replanting. That makes it just about the most sustainable material there is, and with the added bonus that bamboo plants convert about 35% more CO₂ into oxygen than trees. On environmental grounds alone it's hard to ignore its potential.

Mother Nature's composite

Apparently there's an old Asian saying that goes, 'A man is born in a bamboo cradle and goes away in a bamboo coffin. Everything in between is possible with bamboo.' It certainly appears to have myriad uses, including the

construction of bicycles. 'Nature basically figured out composites millennia before we did,' jokes Nick Frey, co-founder of Colorado-based Boo Bicycles, one of only a handful of companies producing bamboo frames.

Boo's creation was the coming together of two minds in 2009 – Frey, himself a US pro rider with a degree in mechanical engineering, and James Wolf, an industrial designer with more than two decades of experience working with all types of bamboo. Each Boo frame is created by hand and predominantly it's a full custom package, although some stock frame sizes are available. The bamboo is carefully grown in Vietnam under Wolf's close supervision and scrutiny, to ensure consistency of the crop. As Frey explains, 'Bamboo is not a homogenous material, which means that growing, harvest, treatment processes and shipping must all be carefully controlled to standardise it as much as possible. The treatment phase alone can take up to a year, including different drying processes in varying temperatures and humidity.' ▶

LACQUER COAT

A clear lacquer coat means you can see exactly what you're getting, or if you prefer to fly under the radar, Boo offers custom paintjobs too.

◀ For the Boo RS-R frame, the bamboo gets some help from other, more conventional materials. While bamboo is used for most of the main tubes, carbon fibre is used for the head tube, seat tube, BB shell and to wrap joints, while aluminum is used to form the rear dropouts.

In terms of geometry our Boo frame seemed to follow well-established norms for a racing rig, with some obvious extra structural bracing added for this disc brake version. Its spec, while very much top-end throughout, consisted of readily available choices. Shimano's Dura-Ace 9000 groupset paired with Shimano CX77 mechanical disc brakes and Zipp's Firecrest 303 wheels were certainly going to do nothing to harm the performance and road feel of the bike.

Virgin territory

Riding the Boo for the first time I was predicting, maybe even actively seeking, some obvious differences in the ride compared to frames made from more orthodox materials. But these differences were not immediately apparent at all and instead it presented an unexpectedly familiar feeling – much more akin to a high-end carbon road bike than I anticipated. A strong pedalling platform enabled powerful efforts to launch you up the road, just as you would expect of any top-end road bike. The Boo is certainly quick off the mark.

Elsewhere, the beefy head tube is no doubt a significant contributing factor in delivering a high level of lateral stiffness throughout the entire front end. Climbing powerfully out of the saddle, my best efforts could not undermine its solid demeanour. This, combined with an appreciably stiff cockpit provided by Enve's carbon bar and stem, gave the Boo a very balanced

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feel, which meant no nasty surprises when descending at high speeds or cornering at pace. In fact I'd say its sturdy, assured handling was one of its best attributes.

Having the impressive power and modulation offered by Shimano's CX77 mechanical disc brakes at my fingertips only provoked me further to dive-bomb into bends, and never did the Boo falter from the line I'd chosen. However something that became apparent on this test was the importance of quality wheel skewers, and perhaps presents a strong case for bolt-through axles to be used for a disc brake set-up on road bikes. I found hard braking caused the front wheel to nudge over in the fork dropout, despite the quick-release being done ▶



BOTTOM BRACKET

A carbon pressfit 30 BB shell is a modern feature, while the CNC'd aluminium rear dropouts are more of an old school approach to the frame design.





CARBON/BAMBOO MIX

Boo tested extensively with many different types of carbon, plus varying the distance of the overlaps with the bamboo, to assess the effects on frame performance.



latter point, I'm inclined to agree – the Boo did indeed deliver a smooth, pleasant ride feel.

My overall assessment of the bike remains positive, but I'm left still searching for a definitive answer to the question I got asked most frequently while testing the Boo: why? Why would you go for a bike made from bamboo over other materials? It's not cheaper, or lighter, nor did this model ride or perform substantially better in any one regard than a decent comparable carbon frame. Then again, neither did it fail to deliver on any significant count or ride any worse.

The promise of very high durability might be a draw for some people, but I reckon it's really a case of its visual appeal becoming your main temptation, and the quirkiness of owning something a bit different.

Like anything completely bespoke, it comes at a cost, but at least you'll have the karma of knowing the material used to make your frame will have likely re-grown 10 times over before you've worn out your drivetrain. Just remember not to ride too close to pandas. 🐼

⬆ up tightly. Even when I did the QR up more tightly still, past what I would consider to be a 'normal' degree of tightness, the wheel still occasionally moved under heavy braking. It was only the slightest movement, but where the clearance between the rotor and pad is so fine, the movement caused the front brake to rub, requiring me to stop by the roadside and reset the wheel square in the dropout. It's a factor that I would certainly want addressed if I was going down the disc brake option, with perhaps an alternative fork, or indeed opting for a standard rim brake build instead.

The only perceptible penalty for bamboo was a bit of additional weight compared to a comparably priced carbon rig, which gave the Boo a slightly sluggish persona on long, draggy climbs. The claimed frame weight of 1,450g puts it outside the ball park of even a budget carbon frame, but Frey is at pains to point out it's not a goal Boo is chasing.

'Weight is such a misguided way to judge bikes,' he says defiantly, and adds, 'Bamboo is about durability and performance with great vibration dampening.' On the

The detail



We questioned designer Nick Frey about why the seat tube on the RS-R needed to be made from carbon, not bamboo, to which he responded, 'It's as much for logistical reasons as performance. Having to mount a front mech on the seat tube is complex in bamboo, as it's barely ever actually a completely round cross section, neither is it ideal for a braze-on clamp, so we started using carbon just for the lower section. But then the seat tube and top tube junction is carbon too, so in the end there was only so much that could be made from bamboo, and performance-wise we found we were getting stiffer results using just carbon, mostly down to not having so many material interfaces.' We can't argue with that, yet it still feels a bit of a shame that Boo couldn't find a solution to the bamboo seat tube conundrum, given the importance of the seat tube in rider comfort and the claimed natural vibration dampening qualities of bamboo.