



FROM THE ASHES

Twmpa Cycles is making some beautiful bikes in Hay-on-Wye – and they're made of wood. Senior tech ed Warren gets back to nature on the GR1.0 gravel machine...

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If you go down to the woods today... you just may see a wooden bike from Wales

Twmpa Cycles is named after the mountain on the west scarp of Wales's Black Mountains, which stands a few miles from Twmpa's workshop near Hay-on-Wye. Twmpa is the brainchild of engineer Andy Dix and his business partner Miguel Ferros, an expert in product management with a background in technology industries. What unites them in their unlikely wooden machine is their shared love of cycling. Miguel scored top marks in his Cycling Proficiency Test back in 1976, starting a long-term love affair with all things cycling.

It's fitting that the brand is named after a local landmark, as locality is Twmpa's touchstone. Andy tells me that the ash wood used in his handcrafted frames comes from a sawmill just five miles away. This family-owned concern sources its ash from the UK, and Andy goes direct to them and chooses particular cuts for each frame build. "The sawmill is used to dealing with me back from when I was making bespoke furniture," he tells me. "I've always believed in using local resources and timbers whatever I'm making; it seems like madness to ship materials around the world when we have such great resources here."

Andy shows me a custom bike he's working on replete with Norse-inspired graphics – based



There's no doubting the elegant looks and the craftsmanship that goes into making Twmpa's bikes

on Norse tattoo designs – for a Danish/American buyer. "For this one, for instance, I knew I needed some high-contrast grain from the dark heart of the wood, so it's hand selected at the sawmill where it's kiln-dried to ensure it's straight and stable." Air-dried timber is prone to shrinking and warping if stored in centrally heated homes or exposed to extreme summer temperatures.

I asked Andy how he ended up making bikes from wood. "After getting a degree in mechanical engineering I got to build amazing things at Techniquist in Cardiff – and watch school kids break them. In time I 'progressed' to a design office, but I always wanted to get back to making things by hand. That led me to becoming a bespoke furniture maker, and I've always loved bikes so set myself the challenge of making a bike from wood."

NATURALLY GIFTED

I've seen bikes made from natural materials before. These include bamboo, plywoods and flax – remember Johan Museeuw's flax-carbon bike in 2008? – but Andy's bikes are something else again.

At first glance, the round tubes make you think they're made from solid wood, but it's much more complex than that. The frame itself takes 12, 100cm x 15cm planks of British ash as well as nine, 2mm-thick veneers for the chainstays. The front triangle is made of four layers, each following



the front triangle shape. These are then bonded together under high pressure to create the form. The individual triangles are all CNCed into precise sizes at Andy's second facility in Cardiff, where the expensive computer-controlled side of Twmpa's operation is. When bonded, these create hollow tube-like forms. Wall thicknesses vary from over 6mm at the head tube down to around 5mm at the centre of the tubes. Butted wood? Who'd have thought of that?

Andy's local approach lets him provide comprehensive information for buyers. He can tell customers not just which area of the country the ash was grown, but he can usually pinpoint the individual estate it came from and even the specific area of woodland within it. Some of Twmpa's prospective customers have even brought their own wood and asked Andy to build a bike.

The frame pieces are interconnected with jigsaw puzzle-like joints, with the four individual slices having interlocking sections opposed to each other to increase the strength. But Andy is quick to reassure me about the strength of his frames, which are all tested to current ISO standards. This is an area where he's looking to investigate further, and one of his hopes for the business is that it can get its own testing equipment that matches current standards, which would let him push the boundaries of the design. Twmpa's current frames



TWMPA CYCLES GR1.0
£9000

★★★★★

SPECIFICATION

Weight 9.56kg
Frame Handcrafted European ash with custom 6061 alloy dropouts and Syntace thru-axle
Fork ENVE Carbon Gravel
Gears SRAM Eagle XO AXS rear mech, Force AXS shifters, 42, 10-50
Brakes SRAM Force hydraulic discs
Wheels Hope 20FIVE 700c
Finishing kit Brooks Cambium saddle, Hope carbon seatpost, Easton EA70 stem, EA70AX alloy bar, WTB Nano 40c tyres, INGRID CRS-POP alloy chainset 42t

HIGHS

Mean handling, green credentials and a superlative ride

LOWS

No fully bespoke handcrafted build is ever going to be cheap

BUY IF

You want a truly individual bike that's not a 'quirky' option but a very fine bike!

weigh around 1600g-1700g. This isn't spectacularly light – but it's a similar weight to a steel gravel frame matching the GR1.0's design.

WALKING THE PLANK

So, why does Andy choose ash for his staple material? Is it because of its local availability or is it the best option for a frame? "For more than a century," he says, "ash has been the go-to material

for making handles for tools, hammers, chisels, axes and more. Ash grain is incredibly tough, it's not heavy and because of the makeup of the wood it has elements that are strong and stiff, and further elements that act like an elastomer, absorbing shocks and deadening big hits. If you imagine

hitting rocks with a steel-handled sledgehammer, it's going to hurt, but do it with an ash-handled sledgehammer and you can keep working."

"I thought the same should apply to frames and bikes," adds Andy, "and right from when I made the first prototypes, I knew we had something. To be honest, if it hadn't worked, we wouldn't be here >

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It may be made of wood, but Twmpa's GR1.0 has genuine cycling chops on the trails



Elder statesman Warren
'plying' his trade, seeing
everything is oaky-dokey...

now. First and foremost, I'm a cyclist who loves riding and I couldn't bear to make something that didn't do the job and do it well."

After I first met Andy and he'd dropped off a test GR1.0 for me, I wanted to get a handle on the feel of the bike. My thoughts on the bike were compiled over a month of testing without any first-hand knowledge of the manufacturing techniques, as I didn't want the romance of how the Twmpa bike was built to influence me.

BRANCHING OUT

When testing a bike, I'm always trying to compare the way a frame feels to something I've ridden before. Steel has its springiness, titanium can be smooth and forgiving, and aluminium can combine lightness and stiffness when done well.

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Carbon fibre can be the lightest, stiffest, most unforgiving material or the most compliant depending on how it's manipulated. But wood? And more specifically British ash – how wood, sorry, would I describe it?

Well, firstly, while it's not like any other material I've ridden,



Well, at least rust won't be an issue on a Twmpa frame. But do keep an eye out for woodworm and wet rot!

it has characteristics associated with all of them. It's impressively solid and its stiff feel is a match for the ENVE Gravel Disc fork our 'Ultimate' build came with. But it's not stiff like aluminium. Yes, it's resolutely immovable from side to side but it has a vibration-damping quality unlike anything I've ever ridden that hasn't had suspension. The flipside of this is when you hit ruts and roots, the frame has a solid 'thunk' that genuinely reminded me of hitting a cricket ball in the bat's sweet spot. There's a sonic response and a total lack of reverb. It's an odd felling, but it's a good one. It seems it's not only the GR1.0's looks that are unique.

The frame is long in reach and on the aggressive side for a gravel bike, though this is tempered with a stack height that is more endurance than full-on race, and a head angle that's slightly relaxed. Twmpa is reluctant to specify exact geometry figures as all of its bikes are built to order and are tunable to each prospective customer's needs. Tyre clearances on my early GR1.0 frame are pretty tight with the GR1.0 only taking tyres up to 40mm wide. The rear end has now been reshaped to provide more generous space around the rubber.

This Ultimate build doesn't come cheap but it's very hard to fault. The Easton EC70 carbon gravel bar is beautifully shaped, and its great blend of stiffness and compliance perfectly suits the bike. The flared design encourages you to ride in the

drops, with the extra width adding lots of control. The ENVE Gravel fork is of the quality you'd expect from Utah's carbon manufacturing expert, and its solidity and lack of lateral flex add to the snappy, direct feel the GR1.0 is brimming over with.

WHERE THERE'S HOPE

Fellow UK brand Hope provides the carbon seatpost and the tough, lively Hope 20FIVE aluminium clincher wheels that are built using its Pro 4 hubs. But with a front wheel weighing 855g and the rear adding 970g, they're not exactly flyweights. It does, however, make the GR1.0's overall 9.56kg complete weight even more impressive. Spec a lightweight set of carbon wheels such as Zipp's 303s and you could easily shed around half a kilo from the Twmpa's weight.

The 20FIVES have the springy, responsive feel you get from a quality set of alloy rims hand-built with traditional J-bend spokes. And unless you're an obsessive weight weenie I'd stick with the Hopes for their impressive ride quality.

WTB's 700x40c Nano tyres have a pronounced centre strip, which keeps the GR1.0 decently sharp on tarmac, while their knobbly tread and pronounced shoulders offer plenty of bite when it comes to the dirt. The result is that the GR1.0 holds its line with impressive ease through corners on loose and potentially hazardous surfaces.



Our GR.01 test bike's Chris King headset and dropouts share the same golden-bronze anodising

The drivetrain mixes SRAM's Force AXS and an Eagle XO AXS rear mech with its 10-50 cassette. These are accompanied by a swish-looking INGRID chainset, which has a direct-mount 7075 alloy chainring with highly machined 2024 aluminium crank arms that are anodised to match the bike's golden-bronze dropouts, Chris King headset and even the bottle cages. And at 540g it's light, with chain retention as good as the SRAM unit it replaces. The 73mm BSA threaded bottom bracket shell is bonded into the frame, so it should remain free of creaks and squeaks.

The Brooks Cambium saddle has a natural rubber hull, is forgiving and flexible and proved a great companion to the GR1.0. That compliant hull does have a bit of bounce to it, however, so it's certainly one to try before you buy.

It's fair to say the Twmpa isn't a budget buy. But the sustainable nature of the frame, and the fact it's hand-built in the UK from such an unusual material mean you'll be getting a unique bike. These things may be enough for you to consider digging into – necessarily deep – pockets. That its ride is just as unique only cements justification.

We talk about innovation a lot, but genuine cycling innovations are rare – and ones that work rarer still. Andy and the Twmpa team deserve praise for a new approach to bike building that actually works. [PLUS](#)