



“There is hardly anything in the world that some man cannot make a little worse and sell a little cheaper,” wrote the great 19th-century social thinker John Ruskin, “and the people who consider price only are this man’s lawful prey.”

He added: “When you pay too much, you lose a little money – that is all. When you pay too little, you sometimes lose

Faking it

Inside the shady world of counterfeit bikes and parts

By Carlton Reid

everything, because the thing you bought was incapable of doing the thing it was bought to do.”

And, in an aphorism much repeated in business books since the dawn of the 20th Century, Ruskin was supposed to have continued: “The common law of business balance prohibits paying a little and getting a lot – it can’t be done. If you deal with the lowest bidder, it is well to add something for the risk you run, and if you do that you will have enough to pay for something better.”

Wise words, and attributed to Ruskin since at least 1916, but they’re not his. They’re real words, and somebody wrote them, but they’re not Ruskin’s words even though they sound like words he would have strung together. The fake Ruskin quote beautifully illustrates why a bargain-buy may, in fact, turn out to be expensive in the long run, but the very fact that the words were not spoken or written by Ruskin, the person they are always attributed to, flags up the fact that you shouldn’t believe everything you see on the internet.

What is real and what is not real? What is a bargain and what is not a bargain? When is a Pinarello a Chinerello? These concepts, and much more, are explored in this on-form article about the shady world of counterfeit bicycles, fake parts, and knock-off clothing.

Ruskin hated bicycling: “to wiggle on wheels will never supersede the appointed God’s way of slow walking,” he wrote some time before 1888. Probably.

ON OTHER PAGES

Alibaba and the forty fakers
- Who's retailing the
counterfeits?

Chinese websites and apps offer "factory-direct" prices for big-brand carbon bikes and parts. Too good to be true?

When a fake isn't - open
molds vs the knock-offs
No-name versus brand
name.When is a Pinarello not a
Pinarello? When it's a
Chinarello

How good are the "Chinarells", and are they made in the same factory as the real thing?

Snap, crackle, and pop - do
fake bikes and parts
crumple?

Some fake frames and counterfeit parts are built tough; some aren't. How can you tell which are which?

"I bought a fake" - who's
buying the knock-offs and
why?

Those who buy fake frames, parts & cycle clothing think they're getting a bargain, but is it a Faustian one?

Tribute bands and the
Shadowlands - a design
professor's take on IP theft
A crash course in Platonic
idealism.Faking bikes is as old as
cycling - knock-offs are
nothing new

Folks have been faking bicycles since 1817.

Fake China - where
copyright means
copy-it-right.

Cream, competent or cowboy – which factories are faking it?

An often repeated claim – from buyers of fake frames, and even some low-rent vendors – is that counterfeited big-brand bike frames are made in the same factories as the genuine articles.

Who is making
fake carbon
frames: a "third-
shift", back-street
workshops, or
"the same
factories that
make for the big
brands"?

This is tosh. Gold-plated tosh. With bells on. This was confirmed to BikeBiz by the main manufacturer of fake Pinarellos.

Chinese manufacturers sculpting hundreds of thousands of high-end carbon frames for leading marques would be risking far too much to make fakes.

The Asian composites manufacturing scene is complex but, for simplicity's sake, there are three carbon factory tiers in China: **Cream**, **Competent**, and **Cowboy**.

State-of-the-art manufacturers – such as Giant, Ten Tech Composites, G&M Carbon Components, Topkey, and Carbotec – are in the **Cream-of-the-crop** tier, and make for many of the world's top cycling brands.

In the middle are the **Competent** companies making carbon frames for mid-ranking bike brands, and which also make "open-mold" frames. The third tier of factories is the Cowboy outfits churning out carbon-fibre frames that, on the surface, look fine but which, on bad days, could be anything but.

It is the **Cowboy** factories – without lucrative contracts with overseas bike brands – which are churning out the fake frames. It's this tier which pays scant regard to workers' rights, and couldn't care less about end-user safety. The worst of the Cowboy-tier factories don't batch-test internally or externally; don't filter out dust to protect their workers' lungs; don't fret about frame imperfections that top-tier factories would spot and reject; and don't offer warranties worth the paper they're not written on. Cowboy factories don't produce frames using the latest bleeding-edge designs, and they don't do their own R&D – Cowboy factories wouldn't know a wind tunnel if one hit them in the chops.

ON OTHER PAGES

Tiger watching the Tigers – Specialized's Andrew Love fights the fakers

Specialized's in-house IP investigator.

Whack-a-Mole Inc. – the lawyers clobbering the counterfeiters

Preventing Chinese factories from churning out counterfeit goods, and merchants from selling them is a tale of take-downs and sanctions.

Fake folders – how Brompton and Strida tackle the copiers

Counterfeiters don't just target carbon frames they also make fake steel and aluminium folding-bikes.

Sham chamois – never mind the quality, feel the width

BikeBiz asked three apparel companies to share their views on counterfeit cycle clothing.

Fake sense of security – counterfeit helmets are not for headbangers

Put a lid on it.

"They're just bits of plastic" – why cyclists buy fake Oakleys

Fake Oaks are known as "Foakleys".

Moles, meet the mole-catchers – officialdom takes on the counterfeiters

Law enforcement agencies, governmental organisations, bureaucrats and trade associations all play their part in tackling IP theft

Don't mess with the mafia – is it dangerous to expose the fakers?

Tussling with the Triads is not to be recommended.

On your marques – what can manufacturers do to foil the fakers?

It's not easy to stymie the copiers, but there are overt, covert, legal-eagle and forensic authentication systems that can help.

There are clear and obvious differences between the factory tiers, says Rob Granville, MD of Surrey's Carbon Bike Repair:

"The Cream know why they are making a particular frame; the Competents are simply reproducing, and as for Cowboys, well, there will always be a market for fake Rolex watches."

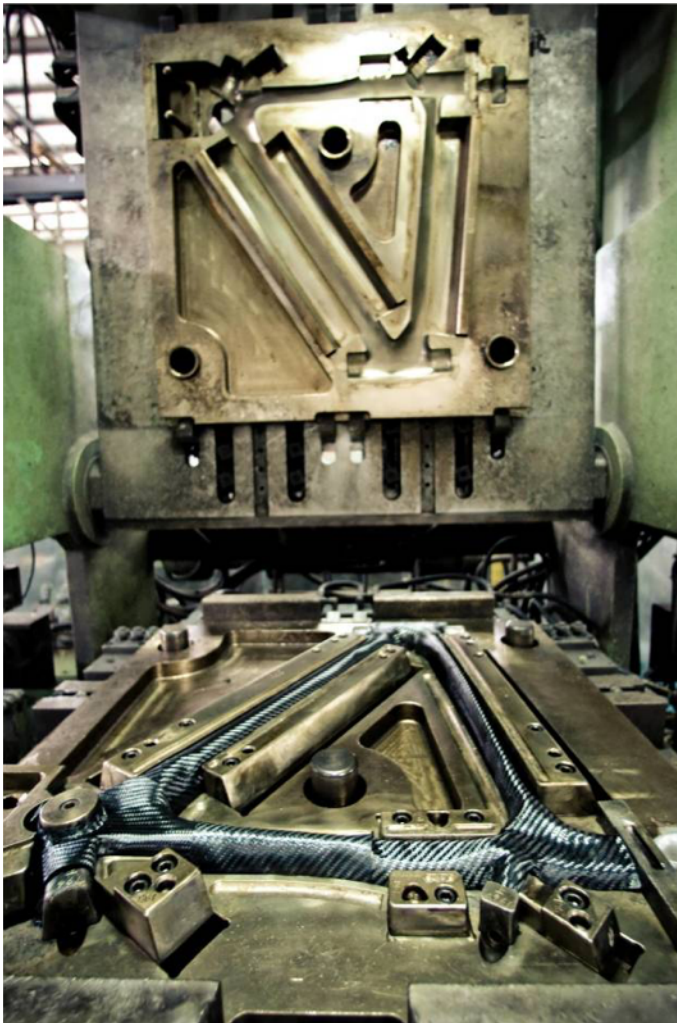
It's a stretch too far to claim that the Cowboy carbon factories are owned and run by the mafia – making fake bike frames isn't anywhere near as profitable as making antibiotics out of talcum powder – but using "intellectual property" (IP) developed by others is now, in theory, illegal in China just as much as it is in the West. By stealing ideas, designs and perhaps even sales from the genuine brands the Cowboys are doing economic harm to others. As can be seen from their hate messages to the investigators who close down their online stores, many of those who run the Cowboy factories are rogues: happy to cut corners, deaf to complaints and aggressive when challenged.

Cowboy factories trade on the fact that many Western consumers believe they are "ripped off" by big-name brands who moved their production to China. Frames cost very little to make, goes the thinking. And such views have often been held by those in prominent positions. When he was the president of the Union Cycliste Internationale Pat McQuaid told a group of journalists – myself included – that the bikes used by the professional peloton "are made in China, by a just a couple of plants. And they're turning out thousands and thousands of these carbon fibre frames, at a cost of maybe \$30 or \$40 a piece, and that same bike is ultimately being sold as a bike on the market for four or five or six thousand Euros."

As with many of McQuaid's statements over the years this was stone-cold wrong.

Pro bikes are made in the Cream-of-the-crop factories. Ten Tech Composites, known in the industry as TTC, crowed in 2008 that it "monopolised the top-three places of the Tour de France." The three pros on the podium that year were riding bikes from different brands – Cervélo, Ridley and Specialized – but the frames were all made in the TTC factory; a high-class factory, a factory at the top of its game, a factory that doesn't also churn out fakes on some fictional "third shift", a factory where the manufacturing cost of the frames is more than ten times what the UCI president claimed.

The Cream factories also tend to produce their own-name frames. Giant, of course, is the best-known and largest of



Clam-shell mold about to go into the oven.

Pic: Phil Latz, *Bicycling Trade*.

these, but other Cream factories also have own-brand bikes. Carbotec, for instance, makes Pinarello frames but also makes Carbotec frames, available at a fraction of the cost of Pinarello frames. The frame shapes are different, of course, and a Carbotec – because it isn't marketed, or ridden to Grand Tour victories – does not turn heads the same way as a Pinarello turns heads.

Chinese factories which make fashion shoes, bags and non-technical products for mainstream luxe brands may have two shifts producing the real articles and an unofficial third one making same-as-the-real-thing leather hand-bags, or whatever, but this isn't the modus operandi of how bike frames are made.

Take Giant, for example. As well as making ultra-high-quality Giant-brand carbon frames in its two C-Tech composites factories – one in China, one in Taiwan – it makes for companies such as Scott, Colnago, and many others. C-Tech plants make 500 carbon frames a day, 150 of which are for

brands other than Giant itself. Each frame takes a total of 18 hours to produce and goes through 32 different pairs of hands and visits 14 quality-control stations. This is labour intensive, but forget any notion of slave labour or sweat-shop conditions. Workers clock-on at 8 am and work through until 5.30 pm, with breaks for tea and lunch. This makes for a 41-hour, five-day working week. At peak times there will be a sixth day added, but no night shift. Giant looks after its workers, many of whom live in dormitories close to the factory.

The world's top bike brands have their frames made in Asia not just because labour costs are low (this is increasingly no longer the case) but because the facilities and the framebuilding technologies built up over 30+ years are world-beating.

Apple also has many of its products made in China for quality reasons rather than just costs. In 2015, the company's CEO Tim Cook told CBS News "China puts an enormous focus on manufacturing ... vocational kind of skills. The US, over time, began to stop having as many vocational kind of skills. You can take every tool and die maker in the United States and probably put them in a room that we're currently



The “hair drier” makes the resin in the pre-preg sticky enough to tack pieces of the frame together.

Pic: Phil Latz, *Bicycling Trade*.

The laying-up of carbon fibre frames is all done by hand, no robots in sight. It's dress-making, really, with patterns and pinning materials on to dummies, and in some factories, such as Giant's, there are even spools of carbon thread. Because it's so primitive - although the Cream factories have layup rooms that look like pristine science labs - there's a very low barrier to entry to becoming a manufacturer of carbon frames and parts.)

sitting. In China, you would have to have multiple football fields.”

Chinese universities churn out composites engineers in their hundreds and thousands. With a glut of engineers the top tier and second tier factories can take their pick of tech workers.

Some Chinese workers are better than others, of course. (Many factories in China also

employ overseas workers, including from Thailand – the Giant factory's instruction posters are written in Thai as well as Chinese.) In the Cream factories only the longest serving and most skilled workers will get to make the high-end frames. The frames themselves are not made by engineers but by semi-skilled workers – often women, who are more dextrous than men. They stick strips of computer-cut carbon fibre sheets called “pre-preg” (fabric pre-impregnated with plastic resin) on to frame-like shapes with blowers that look a lot like hair driers. Some of these pre-preg shapes can be as tiny as postage stamps.

A Giant Advanced SL frame is made in a climate- and dust-controlled room from 300+ individual pieces of carbon fibre sheets, most but not all of them high-grade carbon. Less high-end frames will have fewer pieces. The fakes likely have even fewer pieces, and no matter what the listings on Alibaba say, they will be made from cheaper fibres and resins.

Similar to wood, carbon is anisotropic, stronger in one direction than another. Strength is dependent on the direction of the carbon fibres. There are two basic types of carbon fibre used on bicycle frames: sheets of plain-looking unidirectional carbon pre-preg have all the fibres running in one direction, parallel to one another. The second is a lattice-work sheet of interwoven strands, the classic black-and-grey carbon-twill

weave. Using woven carbon-fibre sheeting is easier and cheaper than manually laying-up sheets made with unidirectional fibres. High-end frames use a great deal of unidirectional carbon in the high-stress areas, such as bottom-bracket shells. Cheaper frames – and presumably most fakes – will opt for more woven cloth, even in the

high-stress areas. The junctions between the high-stress areas on a high-end frame are a 3D jigsaw of carbon plies, each ply pointing in different directions. These ply lay-ups can be incredibly complex for something as seemingly simple as a bicycle frame (they are even complex compared to typical aerospace joins).

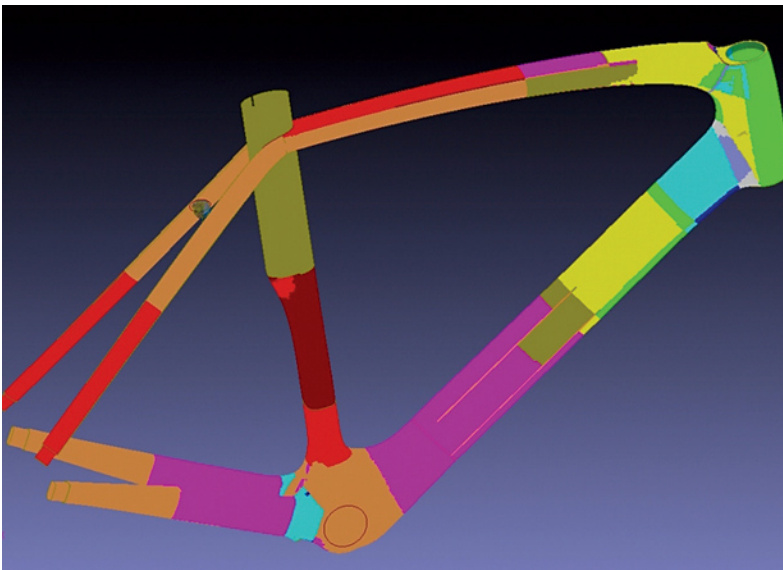
The fake frames may be the same shape as high-end frames but underneath they probably haven't benefitted from the same complexity of design and lay-up. The top layer of carbon – which is for show and doesn't hold the frame together – is no indication of what's below. The best carbon

frames – with “best” being subjective; best at climbing or all-day comfort? – will be made of up to 13 layers of carbon fibre of various stiffness moduli.

High-end frames are computer-designed with Finite Element Analysis (FEA) programs to make sure the strips of carbon fibre are in the right place in the 3D jigsaw, determined by the fibre orientation relative to the frame section and to the stacks and plies of the layup in that part of the frame. To achieve a certain ride characteristic the aim will be for the high-end frame to be rigid in some zones,

compliant in others. This is achieved with the precision lay-up of the strips of carbon fibre, with an optimum layering technique leading to consistent laminates. “Lay a sheet a few millimetres in the wrong direction or in the incorrect order and the characteristics and integrity of the frame may be compromised,” says Phil Latz, editor of Australia's *Bicycling Trade*. The layers of carbon plies are thin and precise in expensive frames; thicker and less precise in cheaper frames, and possibly slapdash in the fake frames.

The “stiffness” of carbon is measured in Gigapascals, or GPAs. The higher the GPA, the stiffer the carbon, expressed as “modulus” (a measure of elasticity, or stiffness-for-weight). Key parts of the top-end frames are made with a higher content of significantly more expensive high-modulus carbon, with a small amount of ultra-high modulus carbon, too (you couldn't build a whole frame from high modulus material – it would be too brittle). A fake frame may *look* the same as the real thing, but this can be just paint-deep. “It's tough to tell the difference in materials between a high-end frame and a cheaper one,” says industry consultant Rick




FEA analysis of a
Specialized Venge.

Pic: Specialized Bicycle

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Warp Yarn * Fill Yarn
3k Carbon * 3k Carbon
Warp Ends * Fill Picks
5 * 5
Weave: 1/1 plain
Width(cm): 100
Thickness(mm): 0.24
Weight(g/m2): 200

Warp Yarn * Fill Yarn
3k Carbon * 3k Carbon
Warp Ends * Fill Picks
5.5 * 5.5
Weave: 1/1 plain
Width(cm): 100
Thickness(mm): 0.25
Weight(g/m2): 220

Warp Yarn * Fill Yarn
3k Carbon * 3k Carbon
Warp Ends * Fill Picks
6 * 6
Weave: 1/1 plain
Width(cm): 100
Thickness(mm): 0.28
Weight(g/m2): 240

Warp Yarn * Fill Yarn
3k Carbon * 3k Carbon
Warp Ends * Fill Picks
7 * 6
Weave: 5/2 stain
Width(cm): 100
Thickness(mm): 0.29
Weight(g/m2): 280

black carbon fiber fabric twill plain about carbon fiber cloth for carbon fiber road bicycle

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Supply Ability: 10000000 Square Meter/Square Meters per Week

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You can buy almost
anything on Alibaba ...

Raoul Luescher of Carbon Bike Repair of Australia likens the matrix mix to making a cake: "you can have the same ingredients every time, but the cake can taste different. It is the same with composites; every individual part is the result of the hand layup combined with the pressure and heat cycle. It is a hard process to control - there are lots of variables."

Vosper, the former director of global marketing for Specialized and later Cervélo.

"You'd need a lot of experience, a good eye, and a well-equipped test lab with ultrasound or X-ray and full mechanical testing equipment, staffed by a competent engineer, preferably a blood relative."

The factories producing the fakes may use questionable materials, including cheaper (and lighter, weaker and less stiff) fibreglass as well as carbon fibre (although the carbon repair workshops say they have yet to find any evidence of this). Pre-preg is stored in big freezers as it has a limited shelf life. Pre-preg past its prime is sold on, and likely to be a staple of the Cowboy factories. Now, pre-preg past its use-by date may be fine, but it might also create problems with the integrity of the resin leading to tiny voids in the matrix. Cream and Competent factories go to a great deal of trouble to weed out imperfect frames; Cowboy ones don't.

Cream factories calibrate their ovens and equipment regularly, and they have strict environmental controls in the layup room. Cowboy factories don't.

Cowboy factories will also use cheaper materials. "You're dealing with [Cowboy] factories who may or may not know what they're doing, creating frames that may or may not be competently designed, and engineered from materials which

may or may not consist of premium carbon, cling-film and old magazines, used cotton-buds and condoms, or spit and belly-button lint,” jokes Vosper.

The Cowboy factories may not be so fussed about checking for voids, porosity or other internal flaws, and they may not pull out samples, cut them in half and check laminate thicknesses. Fake frames may be made with a greater concentration of woven carbon cloth rather than unidirectional fibres. The faked end product often looks just the same as the real thing, the only person who ever knows the fake is spongy to ride is the end-user, thousands of miles from the factory and who has nobody local to call should the frame flop. The Cowboy factories’ quality-control manager is the end-user.

The Competent factories can and do produce excellent frames, and also have in-house testing regimes. Unlike many of the Cowboy factories, most of the Competent and all of the Cream factories can retrace a frame’s journey, from finished product back to the fibre.

It’s often tough to work out which Competent factories are actually factories – many are, in fact, trading companies, with staff who can speak a smattering of English. HongFu and Dengfu are two of the biggest sellers of open-mold and “no-name” frames to Westerners (Nancy Huang of HongFu told BikeBiz the company makes 4000 frames a month.)



Carbon cutting in the
Hong Fu factory.

There are great many Cowboy carbon factories in China, far fewer Competent ones and just a handful of Cream factories. Topkey makes carbon frames for Specialized and Cannondale. It

bills itself as the “largest carbon bike manufacturer in the world”, with an annual production of 200,000 frames. It has been making carbon frames since 1994, and also makes most of the world’s high-end carbon tennis racquets, a business it has been in since 1980. One of Topkey’s Chinese factories is Keentech Composite Technology, which makes carbon frames for Cervélo. G&M Carbon Components makes for BMC. Pinarello frames are made by Carbotec Industrial of Taiwan and China, in the carbon business since 2004.

Some of the smaller Cowboy factories may be “pop-ups”, able to disappear and reappear at the slightest whiff of a police raid, but most are much more substantial than this,

far different to the “back-street workshops” of popular imagination.

“Don’t underestimate how large these companies are,” a CEO of a well-known luxury European carbon-bike brand told BikeBiz.

“It doesn’t make sense for a garage company to make a mold to build ten frames – we’re talking huge numbers. But these factories are not “official” ones, making genuine frames as well. The risk to the factory vendors would be just too great. The typical high-quality carbon-frame factory in China is owned by a Taiwanese national. They likely have kids who have been schooled in the US, Canada or the UK. They have a more Western style of running their companies, which have been around for twenty or more years making carbon fibre. For them to make counterfeit frames as well as real ones would be too much of a risk. If they do other things then it is to make open-mold frames, but not counterfeits. The factories making for Pinarello and Specialized wouldn’t dare screw around.”

Alibaba & the 40 fakers – who’s retailing the counterfeits?

Chinese websites
and apps offer
“factory-direct”
prices for big-brand
carbon bikes and
parts. Too good to
be true?

"Buy Smart. Buy Direct." That's the tagline on Chinese e-tailer DHgate.com, suggesting that you're buying factory-direct, cutting out the expensive middleman. A search for "road bike" brings up 3,808 items, with Cipollini and Cervélo carbon bikes at the top of the list, and at amazing prices. In a sidebar there's an offer for a Skot Scale MTB frame. A Skot Scale? Surely DHgate means Scott Scale? Oh well, easy mistake to make, let's get back to looking at the bargains on offer. For \$1900 there's a Pinarello Dogma, complete with Sky-branded aero seat-post, carbon F8 handlebars, Di2 groupset and deep-dish Dura-Ace carbon wheels.

This stunning “factory price” is from Leadercycling. The address given for this “factory” – which, says the DHgate listing, was founded in both 2008 and 2013 – is simply Guangdong province, China. A Google search for “Leadercycling” retrieves only the listing on DHgate. 450

The International Trademark Association's Chinese Anticounterfeiting Committee says "for a fee, many platforms provide verification seals and badges and high search placement to make a seller seem more trustworthy than it is."

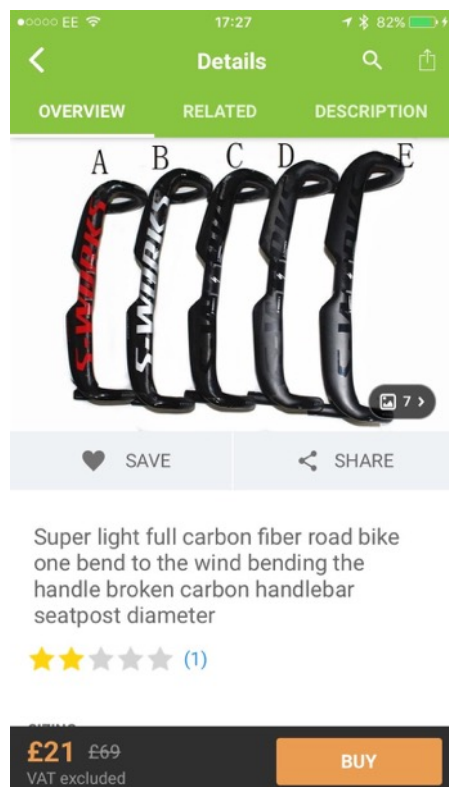
people have bought from this "premium"-level merchant, says DHgate, and Leadercycling has had 99.3 percent positive feedback.

Leadercycling's transactions and the positive feedback may or may not be real, but the "factory direct" products on offer are definitely fakes.

Leadercycling is a merchant. At any one time, there are up to 2800 such cycle-based Chinese trading companies vying for business on Chinese e-tail malls such as Alibaba, Aliexpress, DHgate, and US-based apps such as Geek. Not all of these 2800 merchants are separate concerns – some merchants have multiple business names, making it easier to roll over and play dead when necessary. Whittle them down and there are perhaps a few hundred merchants selling cycle stuff. These merchants buy their goods from the Competent and Cowboy factories.

Many of the carbon frames on offer are open-mold designs that don't infringe on any design rights; some most definitely infringe. The online malls do their best to police their listings but with so many moles it's tough to whack them all.

Fake Specialized carbon bars for sale on the Geek app powered by Wish.



In a 2014 filing with the US Securities and Exchange Commission the Alibaba Group wrote: "Although we have adopted measures to verify the authenticity of products sold on our marketplaces and minimize potential infringement of third-party intellectual property rights through our intellectual property infringement complaint and take-down procedures, these measures may not always be successful."

Alibaba removes 120 million suspect listings each year. The group's online malls have seven million merchants offering 800 million items – ranging from cosmetics to swimwear, and from electronics to sunglasses. Of the 60,000 Dahon folding bikes for sale on Alibaba's sites, half are fakes or infringe Dahon's design rights. Taiwan-based Dahon spends more than \$200,000 a year to combat counterfeiters.

Alibaba went public on the New York Stock Exchange in 2014, in the richest-ever "initial public offering". Alibaba only launched in 1999, yet its merchants racked up nearly \$400bn in sales in 2014. The company says it spends more than \$16m a year on 2000 staff tasked with whacking the moles. But the moles keep coming back. "Counterfeiting is a cancer," Alibaba founder Jack Ma has said.

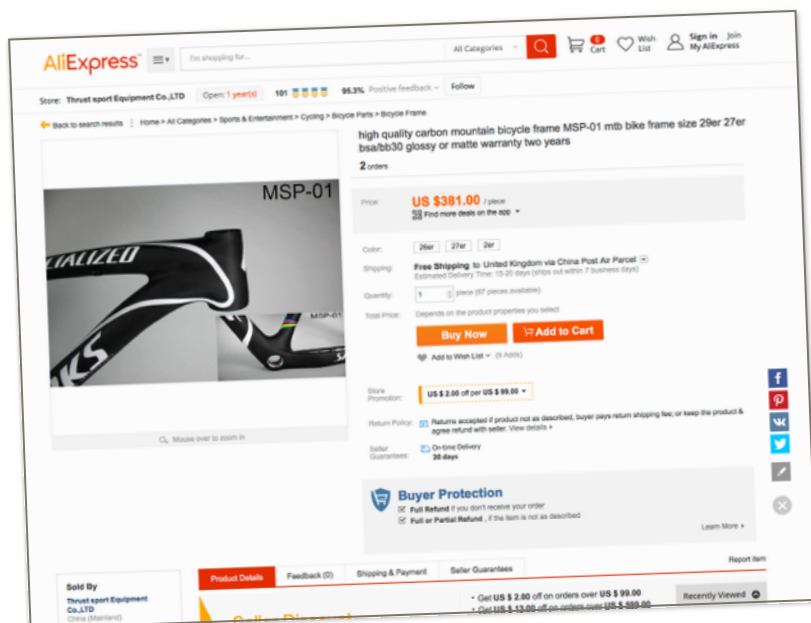
Brands that spot fake products on the online Chinese malls can get them removed by submitting "take-down" requests. In a 2012 filing connected with its IPO, Alibaba said it takes seven to 10 days for its websites to process takedown

Peek-a-boo!

We can see you!

requests, although the process is shorter for brand owners or IP tracking firms who achieve “Good faith complainant” status

by storing their trademarks, design rights and brand names on Alibaba’s servers. “Most of the times, the counterfeits are removed within one day from the take-down request,” Convey’s Michele Provera told BikeBiz. (Convey is an IP protection firm and works for brand owners such as Pinarello, Castelli, SMP and 30 or so others.)



Algorithms can easily spot the fraudulent use of brand names, so merchants get around this by not listing them. Instead, they will place photos of, say, Pinarello frames next to listings that, to an algorithm, look as

though they’re connected with plain carbon bikes. It’s up to brand owners – and trackers such as NetNames, MarkMonitor and Convey – to spot the use of photos. Some of the photo tracking can be done with image recognition software, but the fakers can obscure them enough to throw sniffers off the scent. Many of the photos have to be spotted, and flagged, manually. The fakers can post new listings, from newly named merchants, just as quickly as the offending ones can be taken down.

Aliexpress has a smartphone shopping app, but it’s not the only one. Wish Inc., of San Francisco, has the Geek app – this connects Western consumers with Chinese sellers of mostly no-name electronics and clothing. Wish Inc., is valued at \$3bn and – via Geek and Wish.com – has 100 million customers. The company was founded in 2011 by Peter Szulczewski and Danny Zhang, former engineers at Google and Yahoo respectively. The Geek app is only three years old. It is heavily promoted with Facebook ads.

“Get trending products at 50-80% OFF what you would pay at your local stores,” promises the app. “We go directly to the manufacturers to get you the best deals on stuff you want.” The app has lots of

Wish it did.

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Partners can submit take-down requests for product listings that infringe on their intellectual property.
- Requests are reviewed**
Wish promptly reviews all requests by our partners.
- Counterfeit listings are removed**
Counterfeit product listings are quickly removed from Wish.
- Together we keep Wish counterfeit free**
Together we keep the Wish platform free of counterfeit product listings.

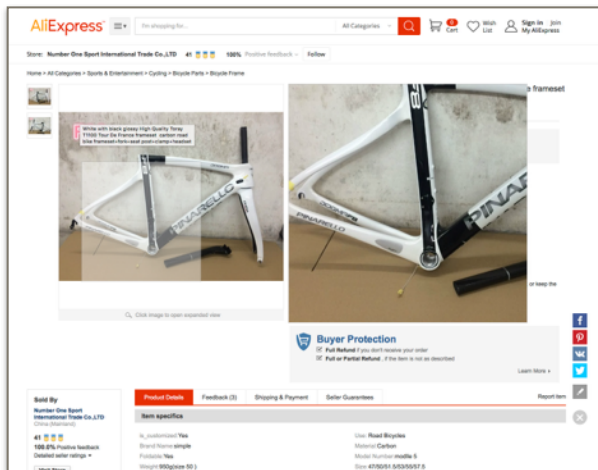
The screenshot shows a DHgate product page for a 'chinarello frame' bicycle frame. The page layout includes a top navigation bar with the DHgate logo, a search bar, and various user links. The main content area features a product image of a bicycle frame with the text 'chinarello frame original design' and 'Free Shipping'. To the right of the image, the product title is 'New arrival chinarello full carbon road bike bicycle frame sky 957 952 954 958 color', followed by a star rating and review count. Below the title, the price is listed as 'US \$492.15 - 580.0 / Piece'. There are dropdown menus for 'Color' and 'Frame Size'. A 'Wholesale Price' section shows a price of 'US \$492.15' for a quantity of '1'. The 'Shipping Cost' is listed as 'to United States' with a note about delivery time. A 'Total Cost' section states that the price will depend on final product features and that the item cannot be shipped to certain locations. There are 'Buy it Now' and 'Add to Cart' buttons. On the right side, there is a 'Sold By' section for 'Iverson3', a 'Contact Seller' section with 'Message' and 'Online Chat' buttons, and a 'Buyer Protection' section with a list of guarantees and payment methods like Visa, Mastercard, and Skrill.

DHgate listing for a Chinarello.

no-name LEDs and other crappy Chinese bike parts but despite the parent company saying it has “a strict zero-tolerance policy against counterfeit product listings” I was able to locate a fake carbon 3T seatpost for £12. If I bought it within an hour of showing interest, I could have bagged it for £10. Shipping would add another £16, but that would still be a whopping “saving” of £114. (Shipping from China can take 2-3 weeks, not something the app promotes.) Unlike Alibaba and the rest, Geek does not list the name of the merchant, not even at the checkout. When I accessed the fake seatpost via Wish.com I could find the merchant’s trading name – Early Light – but no other details were provided. The fake 3T stem was not being sold “direct from the manufacturer”: Early Light is a merchant selling an eclectic range of general goods, including headphones, fishing tackle and lots of plastic tat.

The likes of Geek, DHgate, AliExpress and others make it easy for Western consumers to buy from China. The “direct-from-the-Chinese-factory” websites and apps are distorting the marketplace, making it appear that retailers of genuine products are gouging consumers.

For consumers, it’s caveat emptor, or buyer beware. “Counterfeiters are able to remain anonymous in virtually every aspect of online counterfeiting,” warns the International Trademark Association’s (INTA) Chinese Anticounterfeiting Committee. “Registering a domain name, maintaining a website or selling page on a platform,



Fake Pinarello for sale on Aliexpress.com.

accepting orders, shipping packages, and processing payments can be performed using false or incomplete names making identification and capture by law enforcement or the brand extremely difficult. A seller's real identity is not available to consumers or brand owners."

The committee adds: "Trading platforms and online service providers and intermediaries are lax in verifying that sellers are using accurate seller information. The information that registrants of counterfeit stand-alone websites sites provide for the WHOIS database is generally false or incomplete."

And even when consumers receive goods they may not be able to contact the supplier should any faults be found, warns the committee: "Shippers and express couriers often do not require senders to supply correct or complete return addresses. Counterfeit goods are generally shipped with a fake or incomplete return address via EMS China, China Post or another courier. This anonymity makes it impossible for brands or law enforcement, especially in foreign countries, to locate the sender. Privacy laws in China further stymie the ability to discover the identities of the counterfeiters."

It's entirely possible that the Cowboy factories – and the merchants who buy from them – won't always be rogue traders. In time – and with disincentives, such as fines and prison terms – they may start to develop their own IP for their brands. This seems to be in line with the Chinese government's stance on counterfeiting: to officially discourage it but also to hope that the skills being acquired will eventually lead to the creation of innovative businesses that no longer need to copy Western ideas.

However, prison sentences are rare, and the fines handed out to fakers are low. INTA's Chinese Anticounterfeiting Committee says: "[The Chinese authorities] impose sanctions of up to seven years imprisonment where sales of infringing products are deemed "huge" or up to three years where they are "relatively large" or where "serious circumstances" are deemed to exist. Fines are usually \$8,000, says INTA's committee, adding that "Chinese police will generally only commence investigations into cases where there is a strong possibility that [evidence] thresholds can be met following investigations. As a consequence, online infringers generally attempt to avoid keeping evidence of sales over the relevant thresholds, which they are able to do by keeping low inventories and locating fulfillment separately from operation and maintenance of the websites."

When a fake isn't – open molds vs. the knock-offs

Aliexpress.com sells carbon bicycle frames. Amazingly, it also sells the clamshell molds needed to make these frames. Carbon cycle frames are baked in these molds. Despite modern non-tube carbon frames being called “monocoques,” they are not, in fact, made in one piece. They tend to be molded in two pieces, stuck together with glue, and then the joins are concealed with a carbon-and-resin mix. Premium cycle brands pay Cream and Competent factories for the creation of bike- and size-specific molds, and these molds are not used by other companies. Competent and Cowboy factories also produce generic “open-mold” cycle frames using molds that are, in effect, rented out to all and sundry.

No-name versus
brand name.

The term “open mold” might be well-known on cycle forums but, technically, it's not correct. An open mold is one that's “open” – it doesn't have a top; the sort of mold used for car hoods. Bike frames are made in clamshell molds. The correct term for “open mold” is “open design”. (“Public- or “common-mold” are also used.) When “open mold” is used in this article I mean “open design.”

These Chinese-made open-mold frames are cheaper than proprietary frames from the premium brands. Open mold frames can be remixed by using different rear triangle or bottom bracket configurations leading to unique looking frames at a fraction of a cost of making an entirely new design.

Open mold frames are available consumer-direct from Competent factories or they can be purchased from domestic suppliers. Planet X in the UK is one such supplier. Some bike shops also offer own-brand open-mold frames, painted in shop colours.

Chinese open-mold frames don't have names; they have numbers: three digits after FM (FM stands for frame mould). So, FM099 is an open mold frame baked in “frame mould ninety nine”. FM099 is also a familiar looking shape – it looks an awful lot like the Specialized Venge. In short, it's a knock-off, and is known online, wink-wink, as the “Fenge.” FM098, on the other hand, doesn't encroach on any design rights – it's a popular frame, available from consumer-direct from vendors such as HongFu and Deng Fu.

The FM086 time-trial bike is also available from many vendors. Even though it's an open-mold frame, available to all and sundry, German brand Stevens sells an FM086 under



FM086

the product name “Super Trofeo”. The bike’s blurb makes no mention of its generic origins. Instead “countless hours” were spent “in the wind tunnel to create these aero-optimized tube shapes” and “countless hours of engineers’ know-how” were used to hide the brake behind the fork. “We did our work,” claims Stevens, “now it’s your turn.” The FM086 still looks trick, but it’s now actually quite dated – the 2016 version is the FM087.

Chris Mei of VeloBuild, a Chinese trading company that sources and sells open-mold frames told BikeBiz that 30 percent of VeloBuild’s sales are to Europe, 65 percent to North America and five percent to Australia.

Open-mold frames sometimes get a bad rap on internet forums – usually for issues with internal cabling and frame misalignments – but it’s important to note most of them are not fakes, they are no-name frames. When bought from Competent factories or vendors there’s no reason to suspect open-mold frames will be any weaker than private-mold frames made by Cream factories.

Some open mold frames may have been built to very high standards with premium carbon. Others not. There’s no way of telling which is which, and generally very little comeback available.

Warranties on no-name open-mold frames tend to be much shorter than warranties offered by premium brands with their private-mold frames. (Wheel warranties can be as low as three months.) Sending the no-names back to China is expensive and time-consuming.

When is a Pinarello not a Pinarello? When it’s a Chinarello ...

Ride a fake Pinarello and you risk “serious damage and/or death”, claims the Italian company, adding that counterfeit frames have had “worrying structural failures”. This doesn’t seem to deter purchasers, purchasers such as “Bikebandit” of the US. Bikebandit bought his “Dogma F8” from HK FeiFan Trading of China in May 2015 via the Chinese online retailer

Some roadies proudly ride fake Pinarellos, but how good are the “Chinarellos”, and are they actually made in the same factory as the real thing?

DHGate. Feifan is no longer listed on DHGate, or on Alibaba, and its last posting on Facebook was in June 2015. Bikebandit paid \$599 for his fake, from a factory that, to all intents and purposes, no longer existed one month after his purchase. (This isn't strictly true – the factory still exists, but the trading name has been refreshed; in China leopards change their spots on a whim.)

On an “unboxing” video he placed on YouTube Bikebandit mused: “If you were expecting a real Pinarello you bought the wrong product”. Describing his bike as a “replica”, he added: “Six hundred bucks is a pretty good deal if you don't mind owning a Chinarello.”

Bikebandit spent \$5000 less than if had he bought a real Dogma. “For what I intend to use it for it's fine,” he told the 66,000 viewers of his video. Bikebandit posted a follow-up video two months, and 1000 miles, later. “The bike's holding up great,” he reported. “No cracks, no breaks, no nothing.” One happy customer.

PinarelloPoint™
the starting point for the best purchase.

BEWARE OF FAKE PINARELLO!

A desirable product such as a Pinarello® bike catches the counterfeiters' attention. They exploit our brand illegally, speculating on it at riders' risks. These frames are on the market with no warranties, and have questionable origin and manufacture, as they are often associated with money laundering.

Due to the weird origin, these products are at risk of sudden breaking and Pinarello® is not responsible. Genuine Pinarello® bicycles are only sold via the exclusive distribution network of Pinarello® stores and authorized dealers worldwide.

Think Asymmetric
pinarello.com

Please have a look at our website to find your nearest shop

Pinarello isn't so happy. Up to March 2016 its IP agent had blocked 53,513 listings of Chinarellos (listings can include multiple items) and closed down 2,469 online storefronts, including HK FeiFan Trading.

The Italian company is a victim of its own success. Thanks to Miguel Indurain in the 1990s and more recent Tour de France victories from Team Sky riders, Pinarello is an eminently desirable brand. Couple this desirability with a relative shortage of bikes and the attractiveness of low prices when buying fakes from China, and it's easy to see why Chinarellos are such hot property – they look identical to the real thing, and, say their fans, they don't ride like a “sack of potatoes” as some critics claim.

The real Pinarello frames are made by Carbotec Industrial of Taiwan and China. This factory does not have a “third-shift”, producing the “same-but-cheaper” frames for sale to street-wise Westerners sticking it to the Man.

“If [Pinarello and other] companies can shut down their factories in their home countries to move [their] manufacturing in China to profit from cheap labor and lax labor laws I can save a few bucks from buying products from those same people that branched out from those slave

factories,” BikeBandit justified to himself on a YouTube comment, offering no proof for either claim.

“James Nolan,” writing on Bikebandit’s YouTube page, expressed the view of many when he claimed “the people who are laying the carbon into the molds are ... doing it in a factory that makes major ‘real’ brands.”

Nolan continued: “The factory that makes these probably makes more money on these fakes than on the ‘real’ bikes so it’s in their own interests to make them as good as possible.” These type of claims are frequently voiced by Chinarello purchasers.

In order to stem the flood of fakes, Pinarello uses anti-counterfeiting specialist Convey. The Italian IP consultancy stamps on the online merchants used as fronts for the counterfeiting factories. One of the factories which once produced Chinarellos was Great Keen Bike. The website for this trading company now defaults to a counterfeits page controlled by Specialized. Clearly, Great Keen Bike once made fake Specialized frames, too.



Great Keen Bike is now a number of different companies, including Greatkeen Bike Sport Equipment, GKB Sport Equipment and other variants, including deliberate misspellings of Great Keen. Its latest store on Aliexpress, if you believe in unicorns, is the Bicycling Editors’ Choice for 2016.

CONVEY

Convey may have successfully zapped many of the above-the-counter online mentions of Pinarello from the many-headed monster that is Great Keen Bike, but when I contacted the company posing as a consumer interested not in the leading marques on public display on Aliexpress but a Dogma, “Jerry GK” replied with an image of all the F8 frames he could still supply. When I asked where to place the order I was sent an Aliexpress URL which flew under the radar by not mentioning “Pinarello” – but the frame shapes were the same, and photos sent to me from Jerry via the Aliexpress direct-messaging service were of Dogma frames complete with Pinarello decals.

After digging and digging on Great Keen’s many websites, BikeBiz found, tucked away, a low-resolution photograph of a trade-show stand. The company name above the booth was grainy but, after enlarging and sharpening, it appeared to be “Trident Thrust”. Putting that name into Aliexpress brought up Dongguan Trident Thrust Sport Equipment, a factory on Alibaba.com, and situated in Huangjiang Town, 20 miles north of Shenzhen. This factory – probably the one that makes Great Keen’s Pinarello’s and its other fakes – also

makes Thrust, an own-brand frame. The company exhibited this brand at the 2014 edition of Asia Bike in Nanjing, China, a partner show to Germany's Eurobike.

"Jerry at Greatkeen Bike aka Trident Thrust is an old "friend" of ours," Convey's Michele Provera told BikeBiz.

"We have closed more than ten of his accounts on multiple platforms, with several hundreds of offerings taken down for fakes from Pinarello, Colnago, Canyon, Cervélo, Bianchi, Lapierre, Campagnolo, 3T, FSA, SMP, and others."

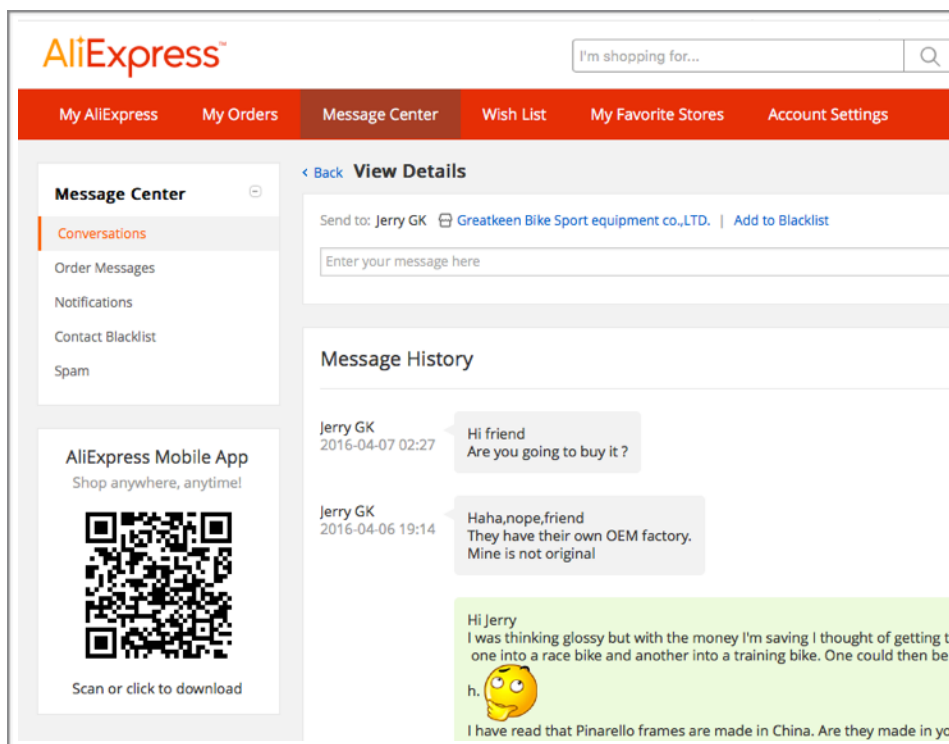
Thrust may be an own-brand but it, too, is guilty of IP theft, says Provera. Many of the shapes used by Thrust frames encroach on the design-rights of companies represented by Convey, and Provera has been able to have them removed from Chinese retail sites (they usually reappear again, in slightly different guises). Provera says Thrust has breached the technology patent on the 3G disposition of Campagnolo spokes, the design patent on the F8 frames, the technology patent on the Look Z-crank and the S5 frames, and the

patent on the hollow body and reverse nose of the SMP saddle.

Provera keeps close tabs on Trident and its various profiles on Chinese retail websites – he clamps down hard on IP infringements. Other brands are less belligerent. Trident/Great Keen openly sells fake frames from Ridley, Cipollini, De Rosa, BH, and Wilier.

Trident is probably not the only Chinese factory

producing fake Pinarello's but it's certainly one of the most persistent. On the plus side, when pushed, Trident does not claim that its factory makes the genuine article. Still posing as a consumer I asked Great Keen's Jerry whether the real Pinarello frames were also made in his factory, as many consumers believe. "Haha, nope, friend. [Pinarello] have their own ... factory," he replied. "Mine is not original."



Busted!

Snap, crackle and pop – do fake bikes and parts crumple?

Some fake frames and counterfeit parts are built tough; some aren't. How can you tell which are which?

Review of a fake Time seatpost on the Geek app.



Manufacturers and brand owners like to claim that fake frames and parts are little better than papier-mâché and will, at some point, collapse. The uncomfortable truth for the industry is that despite YouTube videos that appear to show fake handlebars being crushed with biceps many fake frames and parts are actually almost as tough as the genuine articles; some are perhaps even tougher – it's cheaper to over-engineer a product to make it strong than it is to use all sorts of clever computer programs and complex carbon pre-preg layups. (Over-engineering makes the frames or parts heavier, of course.)

Even genuine products fail – the difference is that consumers who buy pukka products from bona fide retailers can rely on supplier warranties, and if the worst came to the worst the consumer can sue the locally-accountable supplier for any injuries caused by defective products. It would be far harder for a Western consumer to sue a reputable Chinese manufacturer directly, and next to impossible to sue the here-today-gone-tomorrow merchants buying from Cowboy factories.

There are no figures available on how many injuries – or deaths – have been caused by fake products collapsing on riders. Nevertheless, it's probable that it's statistically less safe to ride with products made by factories with little interest in the latest ISO standards and even less interest in cycling itself.

Genuine products may crumple, but they are usually designed so that in the unlikely event of a high-speed failure they crack or split in a relatively predictable way, with the rider hopefully being able to ride to a stop; fake products don't benefit from the same sort of failsafe protocols. (Some high-end frames from Cream factories use pre-preg sheets embedded with “nanoparticles” that prevent microfractures from spreading which can avoid immediate collapse – such enhancements are expensive yet invisible, and are not used by Cowboy factories.)

Well-made carbon frames are lighter and stronger than their metal equivalents. But not all carbon cycle products – real or fake – are perfect. Some dud ones slip through. The Cream and Competent factories spot more duds than the Cowboy factories – this is because they look and test for them.



U***h P.

★★★★★

16 Sep 2015

Got these bars today and while they look great and seem solid the carbon layup is a bit sloppy. As you can see in the pictures the amount of layers range from good to scary thin in some areas. Hard to tell if they'll hold up or not under normal riding conditions. Also hoping that this same inconsistency doesn't run the entire length of the bar.



Customer review of fake 3T handlebars on the Geek app.

According to Raoul Luescher of Carbon Bike Repair of Australia, common problems include:

- Delamination – “where the plies are separated and can no longer transfer load.”
- Unbond – “when the plies or other fittings were not bonded properly during manufacture.”
- Porosity – “dispersed air trapped in the resin during cure causing a reduction in mechanical properties.”
- Void – “large, trapped air bubble.”
- Cracks – “broken fibres and/or matrix.”

The aerospace industry relies on composites. Every carbon part is tested for such problems, usually with non-destructive inspection (NDI) technologies such as ultrasound. The cycle industry doesn't yet test every frame and part with NDI imaging methods.

Luescher uses ultrasound equipment to work out where repairs to the matrix are required.

“I am not aware of any of [cycle] factories doing any ultrasound scans of production frames or parts,” Luescher told BikeBiz. “The data interpretation on a typical frame is not straightforward. I have discussed this with factories in the past, but they are looking for a “go or no go” solution. This is not simple with the shapes and laminates used in a cycle frame.

ABOUT THRUST

TridentThrust Sport Equipment Co., Ltd. founded in 2007, specialized in carbon fiber road frames and mountain frames. We promote our operational efficiency through the high responsibility for customers. According to our spirit of high-quality, high-tech, high-service, we develop a series of innovative and quality bicycles to provide our customers with comfortable fitness equipment.

As a professional carbon factory, we could produce different types of carbon products. We also expand business scope by offering OEM & ODM private molds and private production lines service.

We have a lot of carbon products, including Frames, Front Forks, Headsets, Seat Posts, Stems, Hangers, Waterproofs, Handlebars, Saddles, Bottle cages, Helmets and so on.

We have members for designing. We also have professional QC persons take the responsibility of ensuring the quality of our products. We also accept customer painting services!



Trident Thrust's website claims this is its factory, and manufacturing and testing processes.

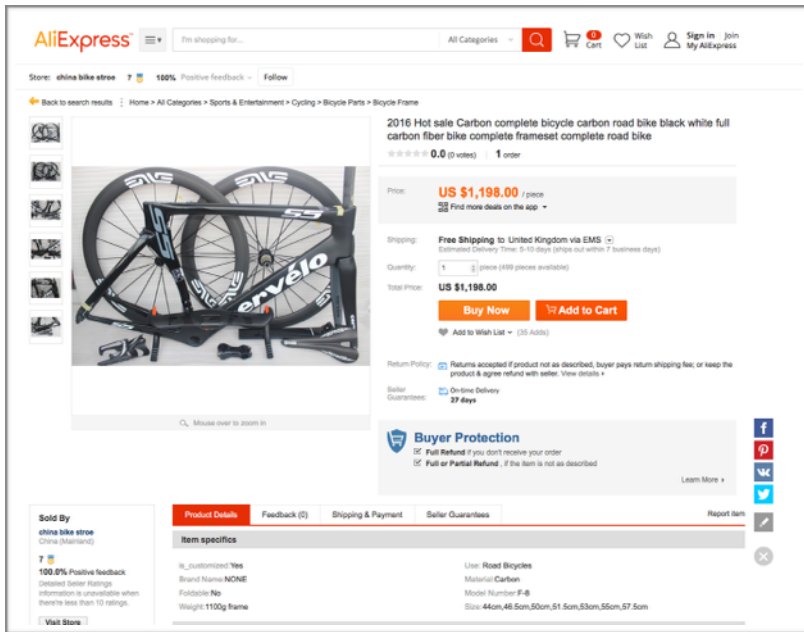
“Other technologies such as CT scans may be more likely to be used. Larger voids could be found like this. However, they would typically not be able to find porosity.”

Carbon Bike Repair works on frames from bona fide manufacturers – branded and open-mould – as well as frames from the fakers.

“I have scanned some of the fakes, mainly Pinarellos,” says Luescher.

“The compaction was mainly ok. There was some variability – some were better than others. However, you also can get this in the original brands as well. Overall the laminate was comparable from a porosity and void perspective.

“The unknown is the fibre and resin quality, grade and type as well as the ply orientation. I would need to do destructive tests to identify these parameters. The fakes were similar in



Fake Cervélo frame and fake Enve wheels.

The frames from the Cowboy factories are getting better, but those from the Competent and Cream factories still rule the roost, says Rob Granville, MD of Carbon Bike Repair of Dorking, Surrey. (No relation to the Oz Carbon Bike Repair.)

“The Competent manufacturers are just about hanging in with the developments and fine tuning that the Cream produce. The Competents have access to some of the processes they see in the Cream factories, but a lot of the advantages are invisible.”

He adds: “The manufacturing quality of frames from the Competent factories is generally good. The layup patterns are generally good but in some cases we have had examples of “dry” carbon structural failures where the carbon is not bonded by enough resin. It is either from a low quality supplier or they are chasing weight, we don't know which.”

The Cowboy factories are getting better, but still have a long way to go, says Granville.

“The real problem isn't so much that they want to make cheap, dangerous bikes, it's that they don't understand the limits. In many cases the wall thicknesses are inconsistent. This is where we see problems.”

In the near future there may at least be a baseline for safety which is accessible by all, even the Cowboy factories. Improvements are in the pipeline for the current international safety standard for bike frames and structural parts: ISO 4210. This is essentially a set of fatigue tests to tick off. The forthcoming changes aim to bring ISO 4210 up

weight and wall thickness and there was no sign of low-cost glass fibres in the scans.

“I have seen some bars, forks and rims from the fakes all the way up to the very high-end brands that were full of porosity, voids and other flaws such as wrinkles, which could cause a catastrophic failure or at the very least reduce the life span of the part.

“One thing that was noticeably different [on the fakes] was the poor quality of the headset bearing seats and other fittings.”

Caveat emptor – or buyer beware – is a solid piece of advice for the growing number of enthusiast consumers sourcing frames and parts from China. But bike shops need to be aware, too. Some have been known to take in open-mould frames – and sometimes even counterfeits – and fit parts, for a fee. This is not a sensible idea because the retailer who works on such a bike becomes the assembler, in effect the manufacturer, and could be held liable should the frame or parts collapse on a rider and cause injury.

to speed with composite materials, although whether Cowboy factories will apply it any more diligently than they do the current version is open to debate.

One of the weaknesses of the existing standard is that it was developed before carbon became commonplace, and doesn't take into account carbon's very different build, use and failure characteristics. Experts from the cycle industry, testing laboratories, and trading standards bodies have been working on the composites-specific CEN Technical Committee 333 Working Group 8, or WG8 for short.

"The current fatigue tests are based on the properties of steel and aluminium," says Peter Eland, technical service manager for the Bicycle Association of Great Britain. "There are differences in fatigue behaviour between metals, but the differences between metals and composites are very much more significant. The key factor is that impacts have a far more significant effect on composite materials than they do on metals. But low-cycle impact loads were not really considered when the [original] tests were agreed."

This means that a composite component could very likely pass all of the fatigue testing specified in the current standard, but could still fail in use.

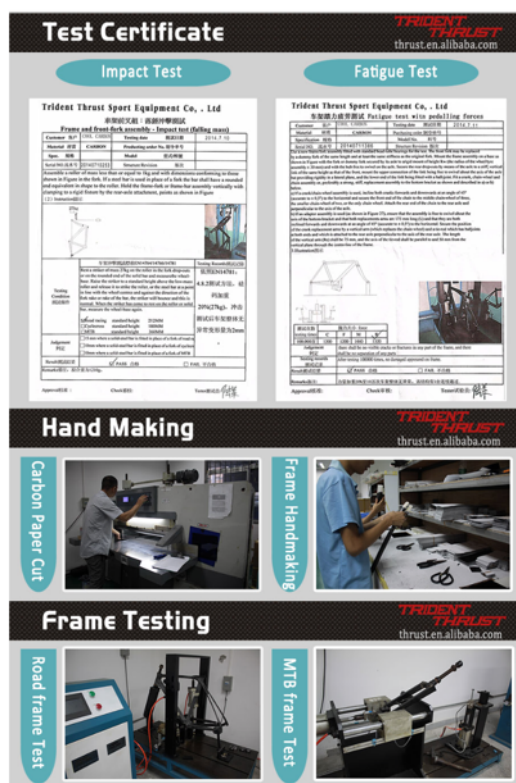
"This sort of failure was identified in seatposts by some of the major companies producing composites, and they swiftly changed their in-house fatigue testing to be more stringent," says Eland.

(Cowboy factories, which don't tend to test, and don't keep up to date with standards, probably won't be up to speed on such changes.)

New tests proposed by WG8 – which includes tech experts from Shimano, SRAM, Trek, Accell Group, and Mavic – will include the effect of temperature on composite rims, which have to withstand burst pressure from the tyres when heated through braking (or being left in a car in the sunshine). There will also be composite-specific tests for steerer tubes and composite saddle rails.

WG8 will make its recommendations in a Technical Report due out soon, and this will eventually become part of the ISO standard for bicycles.

Currently, all factories should already be testing to the imperfect ISO 4210 as a minimum. There should also be a paper-trail so that third-parties can see which factories are doing the right tests. Factories making fakes or open-mold frames have little official incentive to carry out proper testing.



Some merchants on Alibaba carry certificates of the standards and testing they are supposed to have carried out. Dig down and these certificates are often many years out of date, not the actual standards required and, anyway, even if all the details appear correct they could be bogus – if a factory is in the business of faking frames it could very well fake its test certificates, too.

“Counterfeiters don’t consider safety or standards when building fake goods,” Fisher Outdoor Road product manager Tim Bayley told BikeBiz:

“At the start line [of a TT race], I saw a chap’s TT-build crumble into three pieces as he tried to mount to begin the race. The route featured a descent that can take you to 45mph, so it could have killed him. Sadly, people will persuade themselves that something’s genuine despite it obviously being far too good to be true. Ultimately it’s down to the buyer to ask themselves a few questions if they’re not buying from a reputable source.”

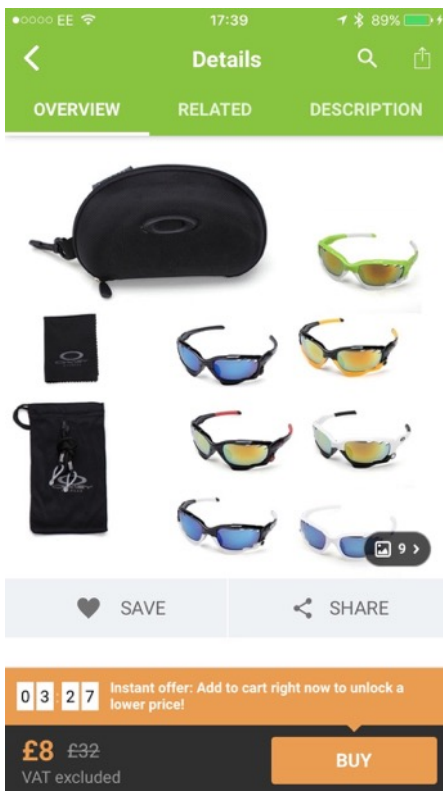
Reputable factories don’t just test in-house, and to the standards they are supposed to meet, they also send out their frames and parts to external test houses. *Velo News* and *Bicycling* have both carried excellent articles on the battery of tests that such businesses carry out.

Trident Thrust claims to test its frames. But how often?

“I bought a fake” – who’s buying the knock-offs and why?

People who buy fake frames, bike parts and cycle clothing may think they're getting a bargain, but is it a Faustian one?

A small but growing number of cyclists openly flaunt the fact they sport shady shades and ride on faux frames. In the UK, USA, and Australia some folks brag about bagging such supposed anti-corporate bargains. Sometimes the well-off will mix in a fake with their originals for a laugh. For many there’s no shame involved in owning a fake Rolex, or buying a knock-off K-Force handlebar – for some, it’s a game, a bit of harmless fun. Any safety worries – green wrists, or crashing to the ground holding just a brake lever – are trumped by the virtuousness of saving cash, and not succumbing to the false marketing of brands said to be selling plastic products at premium prices even though, apparently but incorrectly, they cost just pennies to make. People who pay full whack, goes the thinking, are suckers; those who buy fakes are “smart”.



Fake Oakleys for sale on the Geek app.

But some of those who buy fakes don't know they've done so. For instance, who would knowingly buy a fake downhill helmet? Nevertheless, the usual and greatest motivator behind buying counterfeit frames, bike parts, clothing, and sunglasses is, of course, to save money, but it's not the only motivator because many of those who buy fakes are not short of a penny or two. BikeBiz has talked to doctors, IT specialists and other well-paid professionals who have bought knock-offs when they could easily afford the real thing. None are hardened criminals but, according to psychologists, because they've bought fakes they could be subsequently more likely to make poor ethical decisions in other parts of their lives.

Those who knowingly buy fakes may be at risk not just from sub-standard manufacturing but could also be paying a price regarding their long-term morality, studies have found. Francesca Gino of the University of North Carolina at Chapel Hill, Michael Norton of Harvard Business School and Dan Ariely, a professor of psychology and behavioural economics at Duke University have been researching whether buying counterfeit goods might have hidden psychological costs, warping people's actions and attitudes.

"Once you start acting unethically, including buying faked goods, you are more likely to continue with this behaviour," Ariely told BikeBiz.

"Does that mean if a lawyer buys a road racing bicycle frame they will start charging their clients too much? I think the answer is no. But will they be more likely to cheat on [self-reported race] times or do other things which have to do with riding? I think the answer is yes."

People try to justify to themselves their purchasing of counterfeit products, says Ariely.

"People are not writing to Oakley asking them to charge less; people are not *really* outraged, but the moment they have a chance to benefit personally they justify it with the story that Oakley doesn't deserve excessive amounts of money from them. With bicycle frames, people are more careful because they are more worried about safety concerns."

When some cyclists see others on fake frames and riding with Foakleys they are more likely to buy knock-off products, too.

"There is a social contagion," says Ariely. "One of the things we have shown is that when people are cheating in public other people see them misbehaving and are also likely to



Sellers on Geek are careful not to mention the word "Oakley".

misbehave as well. Club riders who see fellow club members buying fakes are more likely to follow suit."

A leading British bike industry executive told BikeBiz: "I don't think any of the riders in my club have genuine Oakleys – they've been copying each other by buying fakes for at least the last couple of years."

Along with colleagues at the University of North Carolina and Harvard Business School, Dr. Ariely carried out a study that found buying fakes was a starter-drug for other forms of petty dishonesty.

The researchers gave a group of young women pairs of expensive fashion sunglasses but told half of the group that their specs were knock-offs. The study wanted to test if wearing fake shades might make the women act dishonestly. Via a series of honesty tests it was found that a large majority of the women in the supposed counterfeit glasses consistently cheated more than those wearing the real thing.

Wearing or using fake gear makes people feel like phonies, even if just subliminally, and, says Ariely, this counterfeit-unhappy "self" could be on a slippery slope to smallscale cheating in other ways, too.

The professor believes that those who wear fake clothing or ride on fake frames are knocking out of kilter their "self-signalling," the psychological concept that we take cues about what we stand for from our own behaviour. Despite what we tend to think, we don't have a very clear notion of who we are, says Professor Ariely.

"We generally believe that we have a privileged view of our own preferences and character, but in reality, we don't know ourselves that well (and definitely not as well as we think we do). Instead, we observe ourselves in the same way we observe and judge the actions of other people — inferring who we are and what we like from our actions."

Dr. Ariely adds: "thanks to self-signalling, a single act of dishonesty can change a person's behaviour from that point onward. If it's an act of dishonesty that comes with a built-in reminder – think about fake sunglasses with a big [logo] stamped on the side – the downstream influence could be long-lived and substantial."

BikeBiz has interviewed consumers who have bought fake cycling goods. All of the names overleaf have been changed, but the jobs and localities are real.



I BOUGHT FAKE CYCLE CLOTHING

Sam is an IT security manager for a large company in the south of England.

"I don't normally wear pro kit, I get most of my stuff from Aldi, but I bought some Ag2r team replica cycling kit from a Chinese website. Originally I wasn't planning on buying fake stuff. I shopped around; genuine-year-old kit was around 200 euros. There wasn't a chance of me buying that; it's far too much for a standard set of cycling gear with some different colours on it so I gave up looking.

"But Google had picked up on my searches and started offering me kit from Chinese shops. Initially, I ignored them but after a while, I had a look. In the photos, the clothing looked just like the real thing. I forget how much it cost me for bibs and short sleeved jersey, but not much, about £25. I thought I'd try it.

"When the kit arrived, I tried it on. I'm a medium cyclist build – slim with big thighs. The kit is made for, let's say, recreational riders. The top has a huge bulge around the stomach area; it flops down. The bibs are loose around the middle, very tight on the legs.

"The quality isn't great: very thin fabrics, cheap zips, all to be expected I suppose.

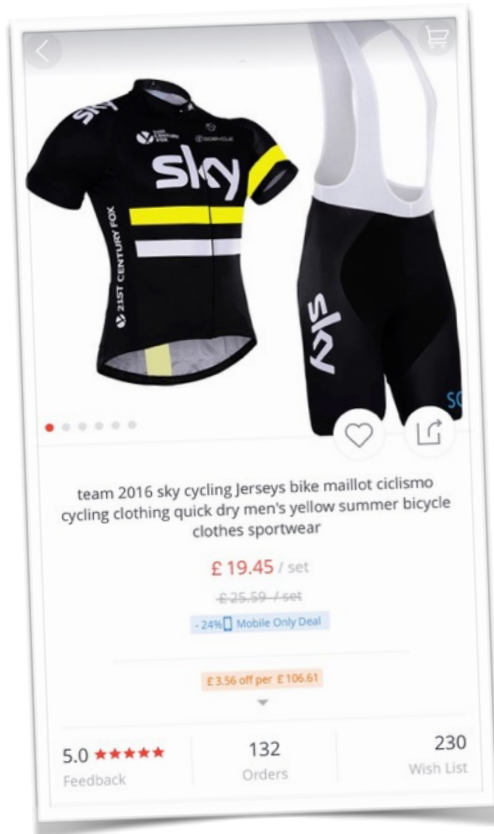
"I use the set for commuting – no-one will ever see it because I wear baggies over the shorts and normally a jacket over the jersey.

"I'd not buy fake again, and I've never deliberately bought fake things before; this was a good life experience as far as I'm concerned."

I WANTED TO LOOK LIKE FABIAN CANCELLARA

Eric is a hospital consultant from Bristol.

"I started by buying some replica team kit from a Chinese website. The price was too good to be true, so I knew it was probably fake. My first concern was that the site itself was a fake, and I wouldn't see the cash again. But three weeks later the kit turned up. I'm still using the jersey; the shorts lasted just a couple of hundred miles. The stitching was alright, but the chamois was rubbish. They had Craft branding on them, and they quite clearly weren't Craft.



Fake Team Sky kit
on the Geek app.

“It was dramatically cheaper – I paid about forty quid for stuff that, if it was real, would have cost about £160.

“In life I try to behave in an ethical way as much as I can, and I recognised that I might have been preventing Craft executives from buying shoes for their children but on the other hand, it’s hard to feel sorry for major corporations because replica kit is grotesquely over-priced.

“I didn’t feel good about it, I felt morally grubby; I just wanted to look like Fabian Cancellara for a couple of days.

“Enve wheels spread like wildfire through our club last summer. I suspect half are not riding the real thing. A couple of the cat two guys have the real ones, but I’m sure the others don’t. I heard that second-hand from other people. I’m happy to ride behind the ones who I think are on fake wheels – there are many other things to factor in first, including general discipline. I’ve never seen one explode out on the road – I’m sure it happens, but it’s probably rare. The fake wheels, if that is what they are, are put through a tremendous amount of abuse, and they seem to survive.”

I BOUGHT A FAKE 3T STEM

Tim – a computer programmer from Portland, Oregon – knowingly bought a fake 3T handlebar stem, and regretted it.

“I bought it about a year ago, on eBay. I had been looking for a carbon stem of a certain size. I wasn’t searching for 3T. It should have been 100 to 200 dollars, and this was 30 dollars. From the location and the fuzzy picture I knew it was Chinese seller. I knew it wasn’t the real thing, but I was expecting it was going to be a clone, and might weigh a little more, it might not look quite as good as a 3T stem, but it would perform the same. Two weeks later when it arrived it wasn’t carbon; it was cast aluminium. It was just printed to look like carbon. Of course, it was cheap; I had overpaid for this!

“Originally I was wanting to test different stem sizes, but the rationale was that I didn’t want to buy three \$150 stems to find that it’s not a 60mm I want it’s an 80.

“I could have fitted this stem to a bike but after the Joe Lindsay article [on fakes] I became nervous about the quality of fake stuff. If it was a genuine 3T and a bunch of them failed there would be recalls and media articles about them. That won’t happen with a fake stem from a small Chinese supplier. I don’t want to take the risk.

“Buying fake was a dumb thing to do. It was my fault; once bitten, twice shy.”

Bill – from Brisbane, Australia, and an administration officer in the Queensland government – also bought a 3T stem but thought he was buying an original.

“I bought a counterfeit carbon 3T stem on eBay. After I had received it, I had a gut-feeling that it wasn’t legit. The seller replied along the lines of “Of course it isn’t legit for that price.” I didn’t want to risk putting it on a crucial part of my bike. They agreed to take it back. I sent it via untracked mail; they said they never received it, and disappeared shortly afterwards. I cut my losses and viewed it as a fine I probably deserved. I also then submitted a counterfeit report to eBay as I figured it was the least I could do for 3T.”



Tom’s fake
Pinarello, bought
on eBay.

I BOUGHT A CHINARELLO, UNKNOWINGLY

Tom – a 25-year-old administration assistant from South London – bought a Pinarello online but only found out it was fake some months later.

“I was on eBay [in 2013] when I saw a [Pinarello Dogma] frame. It was a bidding auction, not “buy it now”; it was a UK auction. It was four hundred odd quid – I put in a bid, thinking it would go up [in price], but it never did. A week or so later the frame turned up. I didn’t suspect anything was wrong with it; I just thought I’d landed a bargain.



“I equipped it with a SRAM Red groupset and Dura-Ace wheels. The internal cable routing worked as it should, everything fitted. I rode it for six to eight months, and never had any problems. It was very light and felt very stiff. I’ve test-ridden an official Dogma – my frame handled just as well. I was happy chucking it around corners and down descents.

“I then started hearing about fake Pinarellos on podcasts and on forums, and I wondered if my bargain could be one of these counterfeits. I looked for a serial number but couldn’t find one. I took the bike into [Sigma Sport]; they took off the chainset and confirmed it wasn’t an official bike. They showed me how the threading was different. The paint job was identical, though.

“When I went back to eBay to complain about the frame being fake the seller was no longer listed. I then started doing research on it. I did a Google Image search on the photo used in the eBay listing and linked it back to Great Keen bikes of China. They now operate only through Aliexpress. They sell fake frames from Ridley, Cipollini, and Specialized. Right now they’ve got the [Pinarello] Dogma F8 on their site. From what I can see their operation hasn’t slowed down.

“[The frame has] been in my loft since I found out it was fake. It’s not moved since the day I brought it back from the shop. When I was riding back from the shop I was thinking “please don’t break, please don’t break.” I was afraid to put force through the pedals. I imagined the bottom bracket would crack, and I would be left with a crank in my hand, and I’d have to walk home.

“I no longer wanted to risk riding it. Knowing it’s a fake puts doubts in your mind. I don’t want to be on it when it cracks when I’m doing 50 kmh downhill. It might, in fact, be strong but I no longer felt comfortable riding it.”

Tribute bands and the Shadowlands – a design professor’s take on IP theft

What's real?
What's fake? A
crash course in
Platonic idealism
with Professor
Steven Kyffin.

According to Professor Steven Kyffin purchasers of counterfeit frames and bike parts “don’t consider the R&D, which developed the product they bought; they don’t consider the user-testing, which checked it out; they’re not aware of the stress-testing; they’re not paying for the product development cycle; they’re not paying for the logistics or the distribution networks; they’re not paying for the guarantee nor the service back-up; they’re not paying for the insurance nor the liability.”

Kyffin is the Executive Dean of Design at Northumbria University – his alma mater and that of Apple’s Sir Johnny Ive – and was previously director of the Global Design Research group at Philips, the Dutch technology company. Earlier he was head of Design at London’s Royal College of Art and holds Adjunct Professorships at Hong Kong Polytechnic University and Jiangnan University in Shanghai, China. He’s also a long-time road cyclist and cycle commuter. For all of his two-wheel journeys the wheels he chooses are 20-inch ones – Kyffin is a Moulton rider. His teenage son races on a carbon 700C prototype frame of “indeterminate manufacturing heritage”. I spent two hours with Kyffin in his academic office in Newcastle, which is strewn with both objets d’art and electronic equipment he worked on while he was at Philips. “This was Facebook and iTunes on an iPad before there was an iPad and before there was iTunes or Facebook,” he said, spinning a pre-tablet tablet. “It never made it to market. We were too early ...”

Philips, like all innovative companies, suffers its fair share of IP theft, something that Kyffin experienced during the twelve years he was with the company, but now as an academic he takes a more philosophical approach to design rights, challenging the modern Western concepts of “ownership of ideas”.

“Why is a Pinarello made in one Chinese factory labelled a fake but one produced in another isn’t? Pinarello didn’t make the carbon fibre nor the epoxy. The faking-it factory might be using the same type of carbon fibre and using the same layup and assembly technologies as the “real” factory. Which is really “real”? They are both merely assemblies of other things.”

He goes on to ask, “What is the difference between something that looks like an object, something that *is* an



Steven Kyffin



University of
Northumbria

object and something that tries to deceive the buyer into thinking it's an object and something that the buyer then tries to deceive their peers into thinking that they bought the object? If somebody buys a fake Pinarello and is open about it then who is being deceived?

“People who buy the “real” thing are buying brand allegiance, paying towards the brand's equity, but either way, they are getting a bike made in China. Do the “fake” frames really collapse? I've never heard of one of these frames

collapsing. I've heard of people crashing into trees, but that would break any bike.”

To foil the fakers companies have to keep innovating, suggests Kyffin.

“Chinese factories will quickly find a way to copy anything, but they will always be playing chase up. The fetishist consumer wants the very latest technology; it's the commodity buyers and the laggards buying the fake stuff. If you're the innovator you've got to keep ahead of the curve, or somebody else will leapfrog you. Everybody is learning from the generation before.”

The Chinese factories which copied Knog's silicone-covered lights can't be thwarted for long, says Kyffin. “Once they've worked out how to mould silicone and stretch it into a clip and around the housing anybody can do it. You can't stop China copying you. The question is what do you do next? What qualities will you offer, which cannot be copied?

“The general world view is “let it go,” don't try and control everything. For design-led companies this is a bitter pill to swallow, but if your product is easy to copy make one that's harder to copy. The future for faking is huge. It will become even more explicit.”

Manufacturers with copiable products have to do more than just make and market their brand's products, says Kyffin, they have to add value in many other ways.

“People value relationships with brands they trust and admire; they're willing to pay extra if they feel and understand that they're buying not just a frame but a strong relationship, becoming part of a bigger story. High-end



consumers are interested in long-termism when it's made available to them. You could say a Nissan is a fake BMW: both have four wheels, both have automatic gearboxes, both never stop. At the functional, operational level the offer is the same, yet one is four times more expensive than the other. Why? Because the BMW is said to be the ultimate driving machine, because you're buying into the BMW family, their heritage, their story.

"Buying a particular bike shouldn't be about just the explicit functionality of the object. It won't even be the implied extra good things about it – it's a bit stiffer, it'll go a bit quicker. It'll be what's attractive between the producer and the consumer. It will be about more than just a status purchase, but of being part of a living community."

Consumers who "buy in" to brands value their "realness" but – get ready for some deep thinking – what is "real"? This is something that has exercised minds for thousands of years. The Greek philosopher Plato argued that reality is subjective. He imagined a group of people in a cave who have lived there all their lives. Behind them, a fire burned, throwing shadows on the walls around them. The shadows were their reality, what *The Chronicles of Narnia* author C.S. Lewis called living in the "Shadowlands."

"Plato suggested we are a mere reflection of true reality," says Kyffin. "The fire casts a shadow on to a wall, and the shadow puppets – the reality – is the people acting behind the stage. The shadows are just a representation. The fake bike is the shadows; it's not the real thing. But the people on the other side of the fire don't know the real thing exists. They see the shadows and decide that's real. If you move one level up in reality, our earthly life is the shadows, and the heavenly realm is the reality."

"The tribute band isn't the real thing; it's just an apparition of the real thing. But the tribute band believes in themselves; they are real even though they are but the image of the original band."

Kyffin says that imitation is more than just flattery, it's a validation of worth.

"Brands should want to have copiers because it means they have something worth copying. But then they have to put up prices to counteract the people who are doing the cheating. This makes the problem of counterfeiting a general problem, like how insurance scams put up the cost of insurance for everybody."

"It's worth valuing the work, the enormous creative effort, which brands such as Specialized or Rapha put in. If Rapha

just took ordinary clothes from someone else and put a blue stripe around the sleeve that wouldn't be real. The commodity brands are already copies of the copies. Nobody will fake those; they have no creative or brand value. They play no part in anybody's story."

Brands could do more to invest in retailers, believes Kyffin.

"What's the added value of a shop? This is a really big design issue. What does Condor offer when I could go direct to a factory in Italy to buy similar frames? I go to Condor because the staff knows what they're doing; they all recognise me when I go in; they show me around; they show me their latest thing; they make me feel valued; they make me feel good about myself. I'm willing to invest in them as a retailer of the things they distribute. I become a part, a minor actor, a bit-part in the Condor brand story."

Those who buy fakes are not "wrong" but brands ought to do more to make their products "real", believes Kyffin. "There's a fantastic market out there for tribute bands. People pay to watch tribute bands, but they know they're not real, but they still have value. A product's job is to be real, and represent the brand's integrity."

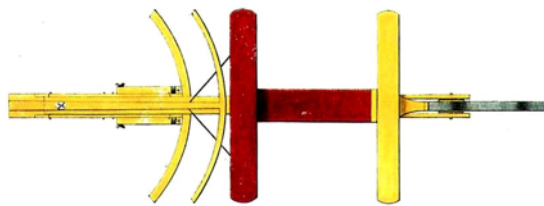
Faking bikes is as old as cycling – knock-offs are nothing new

Bicycles have
been faked since
1817.

The sale of counterfeit bicycles didn't originate in China, nor is it a new phenomenon. In fact, the first epicentre for selling counterfeit cycles was Europe in the early 19th century. The creation, in 1817, of the wooden *Laufmaschine*, or running machine, by Baron Karl Drais in Mannheim, Germany, didn't enrich the inventor. This was because, according to an eminent historian, the "draisine" was pirated. "Artisans built copies on their own merely based on the text of the news," Professor Hans-Erhard Lessing told BikeBiz.

"There was no global patent law covering all German duchies until the imperial one of 1877. In Dresden alone, five copiers built more or less sensible variants of Drais's original design."

Dr. Lessing, author of books in German on Drais, and co-author of the English-language *Bicycle Design* of 2014 added that the knock-offs lacked key features, and were, therefore, dangerous to both users and onlookers.



DES BREVETÉ
Freiherrn Carl von Drais.
Patent del. et imp. Munich 402

“All British velocipedes lacked brakes and trail for self-alignment, causing unpleasant collisions with pedestrians on sidewalks.”

Dr. Lessing believes these collisions, caused by poor copies, were probably the “main reason for the clampdown on hobby-horses by the authorities in London and elsewhere.”

The craze for what were also called hobby- or dandy-horses had fizzled out by the early 1820s – “pirating killed the idea,” says Dr. Lessing.

When in the late 1860s innovators resurrected the velocipede by added pedals the craze reignited. But copiers got to work again, and the burgeoning bicycle market was plagued by poor-quality knock-offs, as evidenced by the author of one of the first bicycle books. “Many defects are concealed by the coatings of paint,” wrote J. T. Goddard, a complaint used today of Chinese fakes. He added that a “machine that is weak in any point, is a dangerous one in fast riding,” a concept which still resonates today.

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THE VELOCIPEDE.

judge of good mechanical workmanship, ask a friend to do it for you. Many defects are concealed by the coatings of paint, particularly in the castings and forgings; and a machine that is weak in any point, is a dangerous one in fast riding. Be sure that every bolt is properly secured by nuts that cannot be shaken off; they should be riveted into the

Goddard, writing in his 1869 book *The velocipede: its history, varieties, and practice*, also remarked on the huge profits supposedly made by cycle manufacturers, a complaint used as a justification by today’s purchasers of Chinarellos, Chinondales and Chinagos:

“There is a very general complaint of the high prices maintained by the manufacturers of velocipedes,

and it is claimed they are pocketing immense receipts, at the expense of an excited and incautious public.”

The “excited and incautious public” is still with us, and so is the copying, of course.

Fake China – where copyright means copy-it-right

In recent years, China has taken steps to counter the counterfeiters, but in a culture where imitation is said to be the sincerest form of flattery the fakes won't fade away anytime soon.

There are so many fake products in circulation in China that the desire for authenticity fuels the success of brand-owned stores. Despite the economic slow-down there are still more than 50 Louis Vuitton stores in China. Burberry has 75; Gucci twenty. And the bicycle industry – plagued by fraudulent frames – also trades on authenticity via corporate-stores. Of the ten Brompton stores in the world, three are in China. (The folding bike brand also sells direct to Chinese consumers via the Alibaba-owned Tmall online store.)

The making of fakes isn't shameful in China. In fact, it was once encouraged by the State – until 1982 and the passing of China's first trademark law the Chinese Communist Party believed that the protection of intellectual property promoted evil Western individualism when the fairest thing for society as a whole was for good ideas to be shared. This tapped into 2500-year-old religious and cultural concepts that the key to learning was to copy slavishly the gurus of the past; word for word in the case of Confucius, or brush stroke by brush stroke in the case of ancient Chinese paintings that today even experts can hardly tell apart. The fifth-century Chinese painter Hsieh Ho formulated six rules for painting, the last of which was “to convey and change by patterned representation,” or more prosaically, “to transmit by copying”.

In China to “learn” and to “copy” mean pretty much the same thing. The Chinese education system has long been based on rote learning rather than encouraging originality. Children are taught from an early age the “right” and “wrong” answers; breaking new ground was frowned upon. In the West, copying is seen as a form of cheating or inferior imitation, but in China, it has traditionally been a significant honour for both parties when a student can finally and faultlessly reproduce a teacher's work.

Copying is therefore seen as a compliment in China, and while factory owners now know they are breaking Western-inspired laws by making “Chinagos” the possible fines they might incur is just another business expense. Deep down they don't feel they're doing anything wrong; they are honouring the great works of master builder Ernesto Colnago not demeaning them and him. (Ernesto Colnago begs to differ.)

This romantic notion of a Confucian cultural chasm isn't quite so sweet for those in the developing world trying to fight off malaria with fake anti-malarial drugs, or feeding babies with fake infant formula, or preventing pregnancies and sexually transmitted diseases with fake condoms.

And it's partly because of the growing awareness that faking stuff can harm that the Chinese authorities are increasingly cracking down on the fakers. The 2008 National IPR Strategy; the PRC Trademark Law effective from May 2014, as well as a landmark test case in 2005 holding landlords and vendors in markets selling counterfeit products jointly liable, demonstrate the increased commitment in China to tackling the production of counterfeit goods, says a report from EUROPOL, the European Police force.

Despite such moves progress remains glacial, with copying still taking place on an industrial scale even when it's not industrial. Just ask the good people of Hallstatt, a medieval town in Austria. Without permission, Chinese architects armed with smartphones – perhaps the Chinese iPhone knock-off, the HiPhone?– took photos of this UNESCO world heritage site, and then builders knocked up a life-size replica in the Chinese province of Guangdong.

This is China's largest manifestation of "shanzhai" culture. Shanzhai literally means "mountain fortress" and implies banditry, but has come to mean the Del Boy side of counterfeiting, cheeky self-expression from the street. The word struck a chord because, in the Cantonese dialect, shanzhai sounds like Shenzhen, the southern Chinese city where electronic appliances – and bicycle frames – are made by Cowboy factories.



A Costélo FM086

You can buy shanzhai cars (a "Chery QQ" instead of a "Chevy Spark"); shanzhai coffee ("Starbox" not "Starbucks"); and shanzhai bicycles ("Costélo" rather than "Cervélo"). In 2009, an official from China's National Copyright Administration said

shanzhai was not counterfeiting plain and simple. "Shanzhai shows the cultural creativity of the common people," said the official. "It fits a market need, and people like it." The mayor of Shenzhen agreed, urging industrious entrepreneurs to "not worry about the problem of fighting against plagiarism" and "just focus on doing business."

Tiger watching the tigers – Specialized’s Andrew Love fights the fakers

Andrew Love is
Specialized’s
in-house IP
investigator

There are many fake Specialized products available online, but there would be an awful lot more if it weren’t for Andrew Love, head of Specialized’s brand security division. Love and his multi-lingual team of fifteen aim to spot the fakers, and zap them. Based in Specialized’s distribution centre in Salt Lake City, Utah, 780 miles from the mother-ship in Morgan Hill, California, Love has an ink-heavy business card. Not only does it say he’s Specialized’s head of brand security, global investigations, and legal enforcement but it also says it in Mandarin Chinese. His Chinese nickname – “Tiger watching the Tigers” – is based on his tenacity; he’s been zapping the fakers since 2008, and also, he explains, because “I have a very orange-redhead freckly complexion.”

An elite speed skater in a former life, Love is a self-taught zapper of fakes, not an IP lawyer; he is now one of the most experienced investigators in the industry. In the first seven months of 2015, Love and his widely-dispersed team – based at offices in both America and Asia – took down more than \$5m in fake inventory from Alibaba websites alone. Specialized’s brand security team prevent about \$15m of fake goods reaching the market each year.

BIKE BIZ: Which languages are used in Specialized’s brand security division?

LOVE: Our target languages are pretty much everywhere a bike is popular. Our staff is all over the world. Since Google serves searches very hyper-locally, hunting is better when you have locals doing the hunting. Also, locals have more credibility with their own country’s customs and law enforcement.

BIKE BIZ: Are frame molds copied secretly? Or are CAD drawings leaked? Or are 3D scanners being used to capture frame shapes?

LOVE: They measure out differently and have differing tube shapes when you put calipers to them. Multiple data points clearly show they were re-engineered from our bikes, with no access to our CAD or molds.

BIKE BIZ: Why are folks buying fakes?





Fake Specialized.

LOVE: My experience is that human beings have a great capacity to delude themselves when they think they can save money. Greed trumps reason for some, over and over. Just because you really want to believe you can buy a \$3000 frame for \$700, doesn't make it safe to ride, or the same thing. There are "pirate-inclined" consumers. I've had long conversations with several. In general, I find them to be narrow-minded people for whom money simply trumps every single

other reality, including their safety. On the flip side, some fakes are sneaking into online marketplaces, and being sold at retail prices, so it's often more complicated to keep yourself safe than just price watching. [Buying from] your local bike shop is the safe bet for so many reasons.

BIKE BIZ: How safe are open-mold frames?

LOVE: Who do you think is more committed to high quality, safe products? Authentic dealers or people who are selling anonymously over the internet to people who they will never meet, and can never reach them when things go wrong? This is the difference with a publicly visible company; their stuff needs to be top notch, or they run terrible legal consequences.

BIKE BIZ: One of the frequently heard claims is that fake products are made by the same factories that produce the real stuff, but on a "third shift". How valid is this?

LOVE: It might be true in other industries, but absolutely not in cycling. This idea is one of those lies I've seen people repeat to themselves over and over to convince themselves that these items are not produced by organised crime (they are) and that the products are safe. Our riders and dealers get very angry when they spot counterfeits. People get upset when fake bikes show up in the local fast-moving paceline rides. I've got a fake Venge next to my desk here whose bottom bracket cracked right through as the rider hit a pothole during a group ride. He didn't crash, so he was lucky. The most important thing is that when you decide to buy from a Specialized dealer you are buying from people who ride bikes themselves. Safety is personal for our dealers and for all of us who work here at Specialized. We all ride. This makes a vast difference.

BIKE BIZ: Which sites are good at accepting take-downs, and which are cumbersome?



LOVE: eBay is great, Facebook is great, Aliexpress has aspirations to be great – and since they have gone public they have thrown a lot of money and people at the problem. Their problem is that they have a huge criminal seller-base that overwhelms their efforts. Amazon is quite slow and uncommunicative. Any time you go onto a local message board, or a closed Facebook cycling parts selling group, you are rolling the dice. I've never seen authentic Specialized items for sale on Aliexpress/Alibaba, not once.

BIKE BIZ: Does Specialized also employ a legal outside outfit for IP or is your division handling it all?

LOVE: We handle almost all of it, no one is more passionate than a company's own people. Keeping this internal at Specialized has allowed us to work consistently on this, and not just do a sweep once or twice a month like many outside agencies do. I had a whole year of working every Sunday because the carbon saddle counterfeiters were putting things up on eBay on weekends. Even for dedicated companies with people scouring every day, the internet is an awfully huge place, and social media creates waterfalls of content every second.

BIKE BIZ: What do you say to those consumers who believe they are being "ripped off" by cycling brands?

LOVE: No one gets uber-rich in cycling. This is a passion-based industry where people work incredibly hard and incredibly long hours primarily because they love bikes. This is true at your local shop, and it's true at Specialized as well. When a rider purchases an authentic product, they are purchasing creativity and inspiration, built from the ground up to serve a specific rider benefit that has been put through countless safety tests. We ride all this stuff ourselves. The counterfeiters don't test and don't care what happens to the buyers of these products. A counterfeit seller views his customers as disposable.

BIKE BIZ: What do you think should be done to educate consumers on why they should not buy fake products?

LOVE: You are doing it right now. We greatly believe in the education that needs to happen for riders to fully understand the danger and risk of purchasing counterfeit products, and how fakes can sneak into e-commerce marketplaces and social media channels. Your interest as a [magazine], and addressing this complicated issue objectively, is really important. I hope media coverage around this topic will help keep riders safe.

Whack-A-Mole Inc. – the lawyers clobbering the counterfeiters

Preventing Chinese factories from churning out counterfeit goods, and merchants from selling them is a tale of take-downs and sanctions.

“We handle anti-counterfeiting work across many different industry sectors, and while the fakes are often dreadful quality some can be almost as good as the real thing,” says Jeremy Newman, a Merlin- and Independent-Fabrication-riding roadie, and managing partner of Rouse Legal of London. “But when it comes to safety critical products, such as bicycle frames, it becomes difficult to see why any consumer would want to take the risk. If you’re riding in a chain-gang, you want to know everybody around you has got the same stopping power as yourself and have the same quality of frame that you’re riding.”

Newman has extensive IP enforcement experience and, via the International Trademark Association, is a prominent member of various EU-level anti-counterfeiting committees. And as a cyclist, he’s seen plenty of fake frames and parts.

“The internet has facilitated a broader trade, B to B, and B to C – there’s now much greater access to vendors in China,” he says. “It started with everybody becoming comfortable with buying on eBay, Wiggle, and Chain Reaction, so now when people come across an [e-commerce site] their guard might be down. The fakers use common tricks such as the seller’s apparent location appearing to be somewhere trustworthy, say in Europe, but in fact the products are being drop-shipped, from China via Hong Kong, and then dispatched from Europe.”

The counterfeiters have prospered partly because of cultural differences between China and the West.

“In China [counterfeiting] hasn’t always been seen as a criminal act; it was seen as a mark of respect. This goes back many thousands of years – students would painstakingly copy great works,” says Newman.

“But this is now changing. It used to be the case that Chinese mainland factories were given orders by Taiwanese and Hong Kong traders and because China was such a closed society they didn’t realise what they were doing was an infringement or a criminal act. Today things are different. We opened an office in China in 1991, and we’ve seen many changes. There have been tens of thousands of raids, and as the world has opened up there has grown a greater awareness



of intellectual property in China. The State is moving China from a manufacturing country to a middle-class demand and innovation economy.”

But it’s not there yet – the war against makers and merchants of counterfeit goods is an ongoing one.

“Anti-counterfeiting can often feel like Whack-a-mole,” says Newman.

“There are three ways of taking action: you can work with the administrative authorities, very much like our Trading Standards, very light punishment and great scope for corruption; next you have criminal [sanctions], where there are significant deterrent penalties, for the right sort of cases, such as pharmaceutical fakery, and where the punishment can be many years in prison; and then there’s civil litigation.

China is a more litigious society than the US – Chinese companies sue each other more than anywhere else in the world.

“[China] is a place where, if you get good advice, you can do more than just whack-a-mole, but you’ve got to approach it strategically. The approach you take depends on the products being faked – clothing, such as jerseys or cycling gloves that’ll be whack-a-mole because the costs for entry into that type of industry are so low. At the other end of the scale, if you’re looking at a composite frame manufacturer you have a finite number of villains, and the cost of entry in terms of capital and know-how are higher, and that’s where you can have a significant impact if you gather intelligence and take robust action.”

Michele Provera of Italian IP investigators Convey agrees about the strategic approach, but not the moles bit:

“The whack-a-mole concept gives the idea that fighting fakes is frustrating, a losing game. We have proven the contrary: if you whack the moles with the right approach, the moles will not emerge on the surface; they will choose other fields.”

Convey acts for Colnago, Cervélo, Campagnolo, Castelli and 30 or so other brands (not all of which begin with a “c”). It has removed nearly 300,000 counterfeit listings for its cycle-industry clients, blocking the sale of \$12m worth of counterfeit goods. The link-up with the cycle industry came via the World Federation of Sporting Goods Industry.

“We have long lists of notorious counterfeiters which we share with the police and customs forces,” says Provera.

“We use the whole portfolio of the Intellectual Property rights of our clients: trademarks, copyrights, design rights and patent rights. This is of major importance for the companies which are producing frames and components:

many Chinese counterfeiters advertise copycats in raw carbon and no logo. These products are not counterfeiting the trademarks, but are infringing protected designs and technologies, such as the G3 rim disposition of the Campagnolo wheels, the asymmetry of the Pinarello frames, and the hollow design of the SMP saddles.”

But it’s not just about IP, it’s also about safety, adds Provera.

“You have to consider the safety issues connected to the use of a counterfeit product, which do not undergo the necessary stress and durability tests of the originals.”

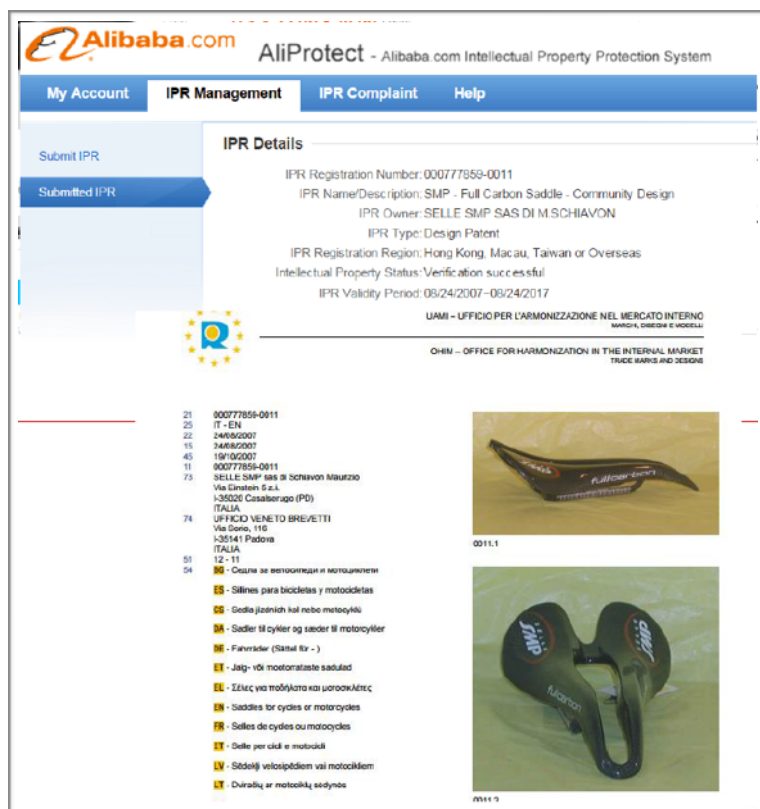
Many consumers don’t seem too fussed about the lack of testing by the counterfeit

factories and often purchase fakes as a form of protest against supposed high mark-ups.

“The great majority [of buyers] have no clue about Intellectual Property: they think that the [fake and real products] are identical or that they are produced and directly sold by the same factories where the originals are made,” says Provera.

“They justify their purchase because they think that the prices of the originals are too high. But maybe not all purchasers of the counterfeits know that they are buying a fake? The Internet is full of bargain hunters: since biking is becoming more and more popular, these offerings attract hundreds of thousands of buyers, many of whom are “newbies”, without great experience on brands and on prices.”

And Provera admits that “before getting deep in this business, I had no clue about the price of a cycling jersey,



Convey initiates an IP dispute on behalf of SMP.

CONVEY S.R.L.
Pending for Response to Counter-notification 24
Alibaba Intellectual Property
Submit Complaint

Status of Complaining Party

Good-faith Takedown Status

Your current status is: Good-faith complaining party.

[Good-faith Letter of Undertaking](#) [What is Good-faith complaining party?](#)

Complaints submitted by a good-faith complaining party will be processed within 1-3 working day(s) by experts in the area of intellectual property rights based on simplified requirements of proof of infringement.

If you have any queries, please feel free to contact iprsupport@alibaba-inc.com

Your Complaint Index

Takedown rate	Successful counter-notification rate
99.33%	0.06%

The relevant time for calculating the Complaint Index: 2015-07

Convey has “Good-faith complainant” status on Alibaba.

nor I could have imagined the price of high-end carbon frames.

“The price range of a counterfeit frame is around \$600-800. You can buy a counterfeit bike (frames, wheels, stem, seatpost and groupset, all fakes) for \$2,000, which is a seemingly credible price in the eye of the non-expert user.

“Fake bikes also get sold in regional marketplaces, such as Craigslist, Marktplaats, Ricardo, Leboncoin, with a local mark-up, thus making the offer more credible in the eye of the innocent consumer, who is convinced the bike must be real.”

Provera says it’s critical for brands to counter the counterfeits because shoddy goods harm the supposed brand supplying such goods, and courts take a dim view of companies which don’t stamp on the fakers.

“When somebody crashes thanks to a fake stem breaking he goes online on the major bike forums and starts a shitstorm campaign against that brand. Then he sues the company,



which has to spend time, resources and money to demonstrate that the item was fake.

“Should this happen in a country with tough liability laws, the plaintiff attorneys will say: ok, you have proven that the item is fake, but you knew that there were tens of thousands of offerings online, and you did not put in place pro-active measures to stop the phenomenon. Judges will then consider the inactivity of the company as gross negligence, and the company gets hit with triple punitive damages.”

By appointing an aggressive mole-whacker companies can reduce the number of fakes being made and also prove they are proactive in protecting their IP. Convey issues “take-down” requests to the online malls, such as Alibaba, where fakes are sold alongside open-mold frames.

“The selling capabilities [of the online merchants] are reduced,” says Provera. “Since the very great majority of them get their accounts banished, they are forced to create new accounts from scratch. Since these accounts are new, they have no eBay-style positive feedback, thus no credibility in the eye of the customers. While the old accounts had thousands of transactions, granting them the necessary goodwill to sell successfully, the new accounts have none, reducing their selling chances tenfold.

“We can catch new fake offerings as soon as they pop up online,” says Provera. “At times, they get detected and removed before they sell a single product.

“On the Alibaba group platforms, we have achieved the status of “Good faith complainant” which grants you with privileged communication channels with Alibaba, dedicated personnel and a faster response for take-downs. Most of the times, the counterfeits are removed within one day from the take-down request.”

Moles, meet the mole-catchers – officialdom takes on the counterfeiters

Law enforcement agencies, governmental organisations, bureaucrats and trade associations all play their part in tackling IP theft.

With the bulk made in China, the International AntiCounterfeiting Coalition estimates the global value of counterfeit goods at \$1.77 trillion. Seven percent of the world's total trade is counterfeit in nature, estimates the World Customs Organisation. The financial loss to companies threatens jobs, reduces national tax takes, and suffocates innovation. Fake goods can be unsafe, deadly even. Counterfeit goods are often made in run-down factories by exploited workers. Control of the most lucrative faked goods – such as pharmaceuticals – is often in the hands of criminal syndicates.

Buying a fake might be sticking it to the Man, but it's not always a victimless purchase. There's no suggestion that Cowboy factories employ child labour or get involved in people trafficking but it most definitely goes on in Asia.



“I remember walking into an assembly plant ... a couple of years ago and seeing six or seven little children, all under ten-years-old, sitting on the floor assembling counterfeit leather handbags,” an investigator told Dana Thomas, author of *Deluxe: How Luxury Lost Its Luster*. “The owners had broken the childrens’ legs and tied the lower leg to the thigh so the bones wouldn't mend. [They] did it because the children said they wanted to go outside and play.”

Organisations and law enforcement agencies across the world are united in their fight against the fakers; here are some of them.

WORLD FEDERATION OF THE SPORTING GOODS INDUSTRY – WFSGI

The World Federation of the Sporting Goods Industry is the world authoritative body for the sports industry. Based in Switzerland it was founded in 1978. The WFSGI has many bicycle industry members. Since 2013 these companies have been able to take advantage of an anti-counterfeiting service



provided by Convey of Italy. Companies pay a joining fee of €2000 and then €2000 per month for the removal of 1000 counterfeit listings on B2C websites, such as Aliexpress.

The WFSGI's secretary general Robbert de Kock told BikeBiz: "An important difference between the cycling industry and other industry areas we represent is that when a bicycle frame or wheel breaks people can get seriously hurt. Even textile counterfeit products may pose serious health risks due to the use of forbidden chemical substances in the production process."

INTELLECTUAL PROPERTY OFFICE – IPO

The Intellectual Property Office is housed within the Department for Business, Innovation, and Skills, and is responsible for the UK framework of Intellectual Property rights, comprising patents, designs, trade marks and copyright. The IPO has worked with the Anjie Law Firm in China, as well as technology transfer and IP licensing experts from both the UK and China, to develop a toolkit that helps UK and Chinese universities and industry manage IP in collaborative research projects. The aim of the toolkit is to help non-IP experts to quickly and simply handle issues relating to the ownership and exploitation of any IP rights generated in collaborations. Officials in the IPO have regular meetings with their counterparts in China.

Huw Watkins, the IPO's Head of Enforcement, told BikeBiz: "The IPO is aware of a number of cases in which consumers have been sold counterfeit cycling equipment, from exploding bike lights to unsafe bike frames. We would like to work more closely with the cycling industry to help address this and would encourage them to engage with the IPO whenever counterfeits are discovered."



Minister for Intellectual Property Baroness Neville-Rolfe DBE CMG said: "The production, distribution and sale of counterfeit goods have always had close links to serious

organised crime, a fact often not considered by the everyday bargain-hunting or cash-strapped consumer."

POLICE INTELLECTUAL PROPERTY CRIME UNIT – PIPCU

The Police Intellectual Property Crime Unit is a specialist national police unit dedicated to protecting the UK industries that produce legitimate, physical goods and online and digital content from intellectual property crime. The

unit was launched in September 2013 with £2.56m funding from the Intellectual Property Office. PIPCU has a team of 20 detectives, analysts, and researchers, and is based within the Economic Crime Directorate of the City of London Police, the National Lead Force for Fraud. Superintendent Maria Woodall, who oversees PIPCU said: “Criminals are exploiting every opportunity to fool customers into buying counterfeits for them to make some quick cash – putting peoples’ health, homes and lives at risk. Our general rule is ... if it seems too good to be true then it probably is!”

CHINA BRITAIN BUSINESS COUNCIL – CBBC

The China-Britain Business Council works closely with the Chinese e-tail giant Alibaba. In October 2015, Intellectual Property Minister Baroness Neville-Rolfe told delegates at the UK-China Symposium that 25 UK businesses, including several large multinationals, have been able to get counterfeit goods sold on Alibaba removed. The symposium allows British and Chinese businesses to understand how they can protect their IP. Baroness Neville-Rolfe said: “British products are in demand around the world because our firms

invest heavily in creating highly original designs. The removal of £8m of counterfeit UK goods will protect the livelihoods of some of our most innovative firms and the jobs of British people. There is more work to be done, but I am pleased that the UK is collaborating closely with Alibaba to find constructive solutions.



David Ho, senior legal counsel, Alibaba Group said:

“We are committed to the protection of intellectual property rights and the long-running battle to eradicate counterfeit merchandise that may appear on our marketplaces. We continue to work with rights holders to protect their IPR and welcome further collaboration with the CBBC and British companies going forward.”

A new agreement between Alibaba and the CBBC guides UK companies, including small ones, on how to use Alibaba’s “take-down” system.

WORLD INTELLECTUAL PROPERTY ORGANIZATION – WIPO

The World Intellectual Property Organization is the global forum for intellectual property services, policy, information, and cooperation. WIPO – founded in 1968 – is a self-funding agency of the United Nations, with 188 member states.



INTERNATIONAL

TRADEMARK ASSOCIATION – INTA

The International Trademark Association is the global association of trademark owners and professionals dedicated to supporting trademarks and related intellectual property. INTA's members are more than 6,700 organizations from 190 countries. Founded in 1878 and headquartered in New York City, INTA also has offices in Brussels, Shanghai and Washington D.C. and representatives in Geneva and New Delhi.

INTA's position on counterfeiting is that Governments at the national and international level must strengthen anticounterfeiting laws and enforcement, and cooperate more effectively to eliminate linkages between counterfeiting and organised crime and serious threats posed by counterfeiting to the health and safety of consumers, economies, and national security.

INTA's Anticounterfeiting Committee China Subcommittee said: "The Internet allows criminals to remain anonymous, thereby avoiding capture and discovery. The global nature of e-commerce also means that many of the counterfeiters are located in different countries with different legal systems in which laws and interpretations governing online infringement are still developing. This only makes it more difficult to effectively address the counterfeiting network as a whole. Furthermore, to date, there has been relatively little cross-border cooperation between authorities to stop international online counterfeiting rings."

The committee adds: "Although many challenges continue to exist, China is rapidly developing its legal and enforcement framework for addressing online counterfeiting with legislation and court decisions now strengthening penalties against sellers of counterfeits and clarifying the duty of care of intermediaries to much the same standard as found in other major countries."



Over the past few years, the central government has encouraged local police and administrative enforcement authorities to become more active in monitoring and investigating online counterfeiting."

To educate teens about the value of trademarks and the negative effects of counterfeiting INTA runs the Facebook-based "Unreal" campaign.

“Teens’ purchasing power will only increase over time, and they will soon be the next generation of consumers. With that in mind, we see a tremendous opportunity for INTA to arm teens with as much information about the economic, social and health risks involved with counterfeiting as possible,” said Alan C. Drewsen, INTA’s executive director. “It is our hope that this information will influence their decision the next time they are approached by a site or vendor selling counterfeit goods.”

INTERNATIONAL ANTICOUNTERFEITING COALITION – IACC

The International AntiCounterfeiting Coalition Inc., is a Washington, D.C.-based non-profit organisation, founded in 1979. The IACC’s membership also includes law firms, investigative and product security firms, government agencies and intellectual property associations who are committed to fighting counterfeiting and piracy. The IACC’s MarketSafe collaboration with Alibaba is an expedited “take-down” service.

IACC president Bob Barchiesi said: “We won’t solve IP owners’ problems overnight, but Alibaba Group has consistently shown its commitment to working with the IACC and its members, and we value the partnership that we’ve developed. We’re hopeful that our past success can be expanded to include additional online platforms as well.”

To date, the IACC MarketSafe program has resulted in the removal of over 110,000 counterfeit listings..



INTELLECTUAL PROPERTY RIGHTS CENTER – IPRC

The US National Intellectual Property Rights Coordination Center is based in Arlington, close to Washington, D.C. The centre is a cluster of Immigration and Customs Enforcement, Customs and Border Protection, the Food and Drug Administration, the FBI, the Patent and Trademark Office, the US Postal Service, the Defense Criminal Investigative Service, and the Naval Criminal Investigative Service.

HOMELAND SECURITY INVESTIGATIONS – HIS

Homeland Security Investigations, based in Houston, is a branch of US Immigration and Customs Enforcement. It can “seize” web domains used by counterfeiters because ICANN, the international web domain registrar, is based in the US. URLs closed down – and which were selling fake cycle clothing and cycle frames from Specialized, Cervélo and Pinarello – included cyclingyong.com, samewood.com, ecyclingonline.com, cycleoutfit.com, ecyclingjerseys.com, bike-jersey.com, cycling-outfit.com, teamsycling.com,



cycling-jersey.net and Yongcycling.com. Visitors to these sites now find a banner that notifies them of the seizure and highlights the federal crime of willful copyright infringement.

OFFICE OF THE UNITED STATES TRADE REPRESENTATIVE – USTR

The Office of the US Trade Representative publishes the Notorious Markets List, an annual report on the online and physical marketplaces that reportedly engage in and facilitate copyright piracy and trademark counterfeiting. Alibaba sites were removed from the Notorious Markets List in 2013 and have not reappeared.

EUROPEAN UNION INTELLECTUAL PROPERTY OFFICE – EUIPO

The European Union Intellectual Property Office, in partnership with the European Patent Office, operates IP Key, which includes in-depth studies, peer to peer exchanges, development of databases and tools, seminars, workshops, training and high-level events to do with IP. It is managed by the Beijing-based Technical Experts' Team with back-up from the IP Key Action Team at EUIPO's headquarters in Alicante, Spain.

A document from IP Key said: "At the start of EU-China cooperation, few if any top level Chinese government officials considered IP protection a priority, particularly outside the substantive agencies. Since then, knowledge of intellectual property protection and related laws, administration and systems have grown hand-in-hand with the country's ability to design and develop its indigenous technology.

"The Chinese government sees that the value created within an economy by technology, rather than a reliance on low-value manufacturing, is the way of the future. Significant resources have been allocated to the improvement of IP administration and enforcement systems, but also to the development of domestically engineered and commercialized technologies. As China has gained a greater appreciation and understanding of the values contributed to the economy by technology and the importance of fostering technological growth through intellectual property protection, it has raised IPR issues to the highest levels of government."

Fake folders – how Brompton and Strida tackle the copiers

Counterfeiters don't just target carbon frames they also make fake steel and aluminium folding-bikes.

There are many more fake Strida folding bikes in circulation than real ones, says the bike's designer Mark Sanders. The fakes are not made to high standards, he adds. Aliexpress and other Chinese e-tailers are also awash with poor-quality Brompton fakes. "If we don't do something to protect the innovators and the risk-takers, they won't be there in the future," Brompton boss Will Butler-Adams tells BikeBiz.

STRIDA KNOCK-OFFS Mark Sanders, designer

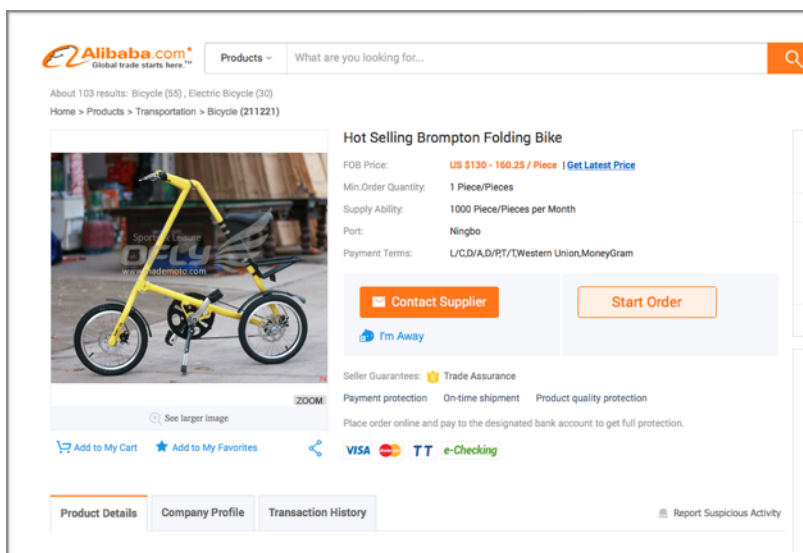
Mark Sanders designed the distinctive Strida folding bike in 1985. The bikes are now made in Taiwan by Ming Cycle.

"There are eight or so Chinese factories making Strida fakes. There are perhaps ten times the amount of Stridas produced in the faking factories than out of the official factory. Most of them stay in China, or countries that abut China; a few trickle through to Indonesia.

"Strict quality control is ignored on a fake. I feel scared for people who buy these products.

"It's awful when small to medium sized companies spend a great deal of time doing R&D and testing, and then somebody will just copy all of that work. The original concept took massive effort. I spent every waking hour obsessed with this project.

"Sadly, there's no international IP police. [To tackle the fakers] you've got to hire a local lawyer in China, which costs a fortune. It costs about £1m to defend a patent, so IP law is only as good as your bank balance.



Brompton for sale?
Nope, it's a fake
Strida.

"Ming Cycle joined Alibaba.com as a supplier to lodge "take-down" complaints. Now the fakers get a warning notice on Alibaba if they try to use the word "Strida". There are many factories copying my designs – I move on and



innovate. You either make something new, or you spend your whole life whack-a-moling.”

BOGUS BROMPTONS

Will Butler-Adams OBE, CEO, Brompton Bicycle

The iconic Brompton bike was designed by Andrew Ritchie in 1975. The bikes have always been manufactured in London. In the early 1990s Brompton licensed its designs to Euro-Tai of Taiwan, and a joint venture company – Neobike – was formed to manufacture the bikes and distribute them in Asia. Former executives from folding bike maker Dahon joined Neobike, but quality control and counterfeiting issues eventually led to court cases, convictions and prison sentences. Fake Brompton bikes can be found on Chinese e-tailers, although they are not labelled as Bromptons (bizarrely, sometimes they are labelled as Stridas.) Will Butler-Adams joined the firm in 2002 and has been CEO since 2008.

“It’s really sad that there is a bike pretending to be us, selling off our reputation and all the time, energy and work we put into delivering that reputation by taking care over what we make.

“Fake products are bad for UK PLC, and if we don’t do something to protect the innovators and the risk-takers, they won’t be there in the future, and that will be bad for the British economy.

“We created our own faking problem with the ill-fated deal with Neobike. We taught them how to make them – that was a mistake. Ten years later we cancelled that agreement because they made such a bad job of it. They outsourced it, and the people they outsourced to outsourced it.

“There is a perception that a bike is a simple thing, but it needs real consideration and thought because that simple thing is whizzing along at 40mph. The consequences of failure are significant. It’s not hard to make a bike, but it’s hard to make a bike that customers will still be using in ten years’ time.

“Not all fakes are rubbish; there are better and worse examples out there. But our bikes have to be robust – they are used day-in, day-out. A 17-stone rugby player might be jumping over kerbs, doing 10 miles each way, [with the bike] getting an absolute pounding.

“[Deciding whether to go after the fakers] is a balancing act. You could spend your entire life trawling the internet and getting obsessed with companies copying you that you get distracted from your core business.

“Factories can try to copy the Brompton but they can never get it right – we spent 30 years developing it. The chain tensioner is our design. The extrusion for the rim is our design. The tyre tread is our own design. The brake levers, the brake callipers, the front carrier block, the hinges, there is so much weirdness about the bike, but the barrier to entry to make a Brompton properly is huge; several millions of pounds in tooling costs. In many ways, we are protected by the uniqueness of the product.

“China is maturing all the time. Trying to deal with copyright and patent issues in China five years ago was a nightmare. Chinese brands are trying to rip off other Chinese brands, so the whole legislative control is getting better all of the time.

“The best defence against copying is innovation. You’re adding value, improving the product. The incubation period for innovation is about three years. Moving faster than the copiers is the best tactic. Businesses should go into battle by sprinting forward, and every now and again stop, pull out a grenade and lob it at the competition – what you don’t want to do is get distracted with an all-out battle because all your competitors will come whizzing past you because they’re not being distracted.”

Sham chamois – never mind the quality, feel the width

BikeBiz asked apparel companies to share their views on counterfeit cycle clothing.

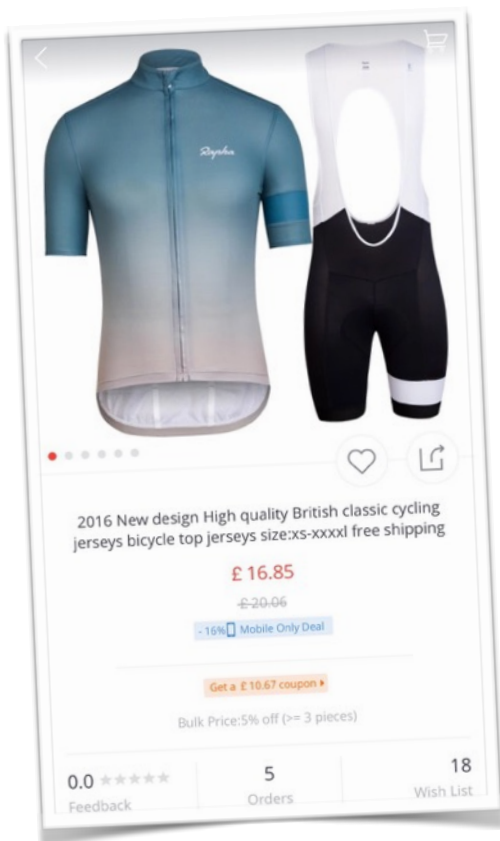
RAPHA

Simon Mottram, CEO and founder

“Faked products is a growing issue for lots of brands and Rapha is no exception. We have seen a growing number of Rapha fakes.

“There are a lot of factories, especially in the Far East, who will copy any graphic design onto a sublimated polyester jersey almost as soon as it is launched.

“Copying is theft. Our brand marks (logos and some design elements) are our property, and we have spent years building them. We will fight to protect them whenever they are infringed.



**Fake Rapha
togs on sale
on the Geek
app.**

“We spend a lot of time and money developing our products. The copycats spend none.

“Copies of colours and graphics don’t mean that the jerseys are the same as the original thing. We use better fabrics, trims and manufacturing quality and fit than any fake.

“Cycling is a tough, demanding sport. We need kit that really performs; fakes rarely do.

“Rapha offers free returns and a free repairs service, plus extended guarantees. Suppliers of fakes do not.”

ENDURA

“Yes we experience problems in this area, especially with our Movistar Team Replica clothing as replica clothing is traditionally prone to counterfeiting.

“As with many premium and progressive brands, Endura’s products are all too regularly targeted by fraudsters selling counterfeit items. The first thing to note is that if a deal seems too good to be true, then it probably is.

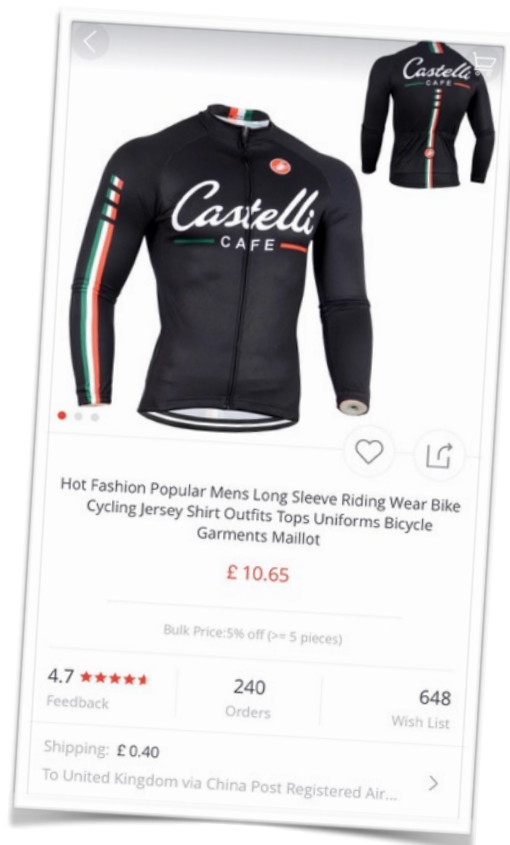
“Check the images of the products carefully to confirm that they match with the items shown on Endura’s website – you might be surprised to see significant differences in logo sizes and positions or mismatched colour panels, as often happens with counterfeit products.”

CASTELLI

Steve Smith, brand manager

“The Chinese manufacturers are not trying to copy our exact products, but rather have very cheap models on which they print graphics similar to our inline or pro team graphics. In the end the product is quite different from a real Castelli product, especially in quality – generally, these products are poor quality in fabrics and construction. Recently there was a big case in Italy where a consumer had bought a fake jersey, and it turned his skin blue. You don’t know what chemicals are in the chamois in that \$20 pair of shorts.

“I think relatively few people are being tricked and thinking they’re buying a genuine Castelli product when that jersey costs \$20 and ships from mainland China. So these consumers are knowingly buying a counterfeit product, and I wonder what these people are thinking. They seem to want to associate with our brand, but somehow we haven’t managed to get the message to them about the performance



Fake Castelli gear on sale on the Geek app.

and quality that we build into our products. It's like the guy who shows up to the party and shows off his new "Rolex" on his wrist that turned green.

"I talk to people when I see them in fake Castelli. Usually, I use the line of "Do you realize that we employ nearly 200 people in Italy, and you're supporting people who are stealing their jobs?"

"I saw one guy with fake tights but a real jacket and asked him why and he said that he loves the jacket, loves Castelli, doesn't use tights very often so didn't see the point of spending a bunch of money on tights. They were hanging on him and he agreed that they were crap, but somehow justified it in his own mind.

"It's a shame that we have to spend time fighting counterfeiters instead of spending our time on something more constructive, and it's disappointing that consumers are supporting these criminals. We probably don't

directly lose too much revenue due to counterfeiters because the guy who buys a \$20 jersey from China isn't going to move into a genuine quality product, they're going to buy a \$20 with some other graphic on it if they can't get a fake Castelli. We fight it more to protect our consumers who buy a real product so that they don't end up being associated with the cyclists who buy counterfeit products.

"We've had some success at fighting counterfeiting through an aggressive program of taking down advertisers on the Chinese market places – DHgate, Alibaba, Aliexpress – as well as eBay and Amazon. We also attack individual websites since most ISPs provide some mechanism to remove fraudulent websites. Over the past year, we have reduced the quantities being sold through Aliexpress and DHgate by over 90 percent. We're attacking around 8000 listings per month. Our partner is Convey."

Fake sense of security – counterfeit helmets are not for headbangers

Back in 2014 BBC's *Fake Britain* programme reported on a fake Giro cycle helmet. "It's part of a growing industry, where the fakers are trying to make money out of the success of cycling," said reporter Matt Allwright.

Charity cyclist Andrew McCreery of Northern Ireland had bought one of the fakes from Amazon.co.uk, not realising it was from a Chinese merchant.

Put a lid on
it, just not a
fake one.



"Seemed to be of good quality, seemed good value for money and it was just a brand which we had recognised as widely used in the cycling world, so we presumed that would probably be the safest bet," said McCreery. The "Giro" helmet cost £35, a saving of £15. It arrived a month later, and didn't appear to be the genuine article.

"The initial concern was the weight," said McCreery, "it seemed to be much lighter than other Giro helmets. It had light-foam and some type of cheap plastic veneer over the top of it which didn't meet the edges in the correct places. The only place this helmet was fit to go was in the bin."

£35 lost; lesson learned. But at least McCreery didn't try to wear the fake – they offer next to no protection, found the BBC.

Fake Britain took a suspected fake Giro helmet to testing and certification company INSPEC in Manchester. INSPEC has testing rigs that allow it to evaluate products for European safety standards. The fake Giro had an inferior retention system to the real thing and, unlike the real thing, it was destroyed by INSPEC's tests.



**INSPEC tested
real and fake
Giro helmets
for BBC's *Fake
Britain*.**

INSPEC's lab manager Andrew Nelson had an assistant test the real and fake helmets for the legally-required European standard for bicycle headgear, EN 1078.

The helmets were dropped from a height on to an anvil-shaped surface, a stand-in for a kerbstone. The standard for the shock

absorption test includes a maximum permitted acceleration of 250g.

For each of the impact tests performed "we'll be looking to make sure that the helmet gives a value which is lower than that maximum," said Nelson.

The real helmet was tested first. It registered peak instantaneous acceleration of 82.3g, well below the 250g limit specified by the standard (the US Consumer Product Safety Commission helmet standard has a limit of 300g).

Next, the genuine product was tested impacting on a flat surface. This resulted in an acceleration of 187.3g, still well below the limit of EN 1078.

The fake helmet didn't fare so well – it exploded on the anvil and wasn't able to take the flat surface test.

The fake lid registered peak instantaneous acceleration of 1209.8g. "That's nearly five times over the golden 250g safety limit," said Nelson. "And that's also exceeded the maximum that we can record with our equipment, so the value could even be higher than that."

When the fake helmet – now in two pieces – was taken to neurosurgeon Lewis Thorne of the National Hospital for Neurology and Neurosurgery in London he expressed his shock: "To find that people are prepared to put other peoples' lives at risk for the sake of a small profit is totally reprehensible."

It's now tougher to find fake Giro helmets on Amazon.co.uk but there are plenty that *look* like Giro helmets, and many that copy Catlike's distinctive round vents as well as other distinctive designs on other brands of helmets. Many of the lookalikes on Amazon are sold by SkyTeam4u. Click a bit further and this is revealed to be DeSheng Wangluo Keji Youxiangongsi of Shenzhen, China. This company sells lookalike but unbranded helmets for as low as £14.95 –

amazon.co.uk

Search: giro helmet

Shop by Department: Sports & Outdoors, Clothing, Shoes, Fitness, Camping & Hiking, Cycling, Sports Tech, Winter Sports, Golf, Running, Rugby, Deals

41 Vents Mountain Road Race Helmets Hero Bike Cycling Safety Helmet with Visor by SK

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Sale: £14.65 FREE UK delivery.

Usually dispatched within 3 to 4 days.

Estimated delivery 20 Apr - 11 May when you choose Standard Delivery at checkout. Details

Dispatched from and sold by Skyteam4U.

- Vent qty: 41 vents
- Material: EPS & PC
- Head circumference: 54 - 62 cm / 21.3 - 24.4 in
- Item size: Approx. 27 * 20.5 * 14cm / 10.6 * 8.1 * 5.5 in

Cycling Special
Olympic gold medalist and world champion Geraint Thomas chats to Amazon > See more

£14.65 + FREE UK delivery
Usually dispatched within 3 to 4 days. Sold by Skyteam4U

Quantity: 1

Add to Basket

Turn on 1-Click ordering

Add to List

Have one to sell? Sell on Amazon

Special Offers and Product Promotions

- Explore our full range of clothing and equipment for any sport or activity in the Sports & Outdoors Store.
- Find your favourite sports, fitness and outdoor brands for less in the Sports & Outdoors Outlet.

Product details

Delivery Destinations: Visit the Delivery Destinations Help page to see where this item can be delivered.
Find out more about our Delivery Rates and Returns Policy

Helmets
looking a lot
like Catlike
helmets are
sold by
Amazon.

those who buy them are setting themselves up for disappointment. Daniel Asare bought one in February 2015, and left this scathing review: “Flimsy, very lightweight and does not fit head properly.” Furthermore, the helmet “looks cheap and has no tested safety certificate or marks to confirm it is safe to use.” Asare was also disappointed in the long wait for delivery, but it was the quality he most complained about, although for £14.95 what exactly did he expect? “Not value for money,” he concluded, “it’s just cheap and not fit for purpose.”

Many of SkyTeam4u’s helmets have faux carbon fibre plastic covers, making them look pretty trick. The “20 Air Vents Sports Road Bike Cycling Safety Helmet with Visor” for £15.95 explicitly states that it’s made from “Carbon fiber.” Knock off the “er”.

While most of the Chinese helmet sellers on Amazon state their lids meet the requisite safety standards, the lookalike helmets from SkyTeam4u do not.

Making and selling poor quality knock-off helmets is “not an economic question, it’s a moral one,” Specialized’s IP investigator Andrew Love told BikeBiz.

“Fake helmets fail all the CE and CPSC tests horribly. Counterfeit helmets are extremely dangerous – there are deep moral issues surrounding the production and distribution of these fakes.”

Love added: “The dangerous aspect is visual; authentic helmets often look very close to real from the outside. But the fake helmets have not been constructed or are able to pass CPSC impact testing, so although they look authentic,



they do not provide any of the safety qualities that an authentic helmet does. It's frightening stuff no matter how you cut it. Law enforcement takes these issues very seriously, and acts fast when they pop up."

Love means law enforcement in the US, but authorities in China have been stamping down hard on helmet fakers recently. In 2015 Xie Zhenxiang was sentenced to nearly three years in prison in China for selling fake cycling goods, including Giro helmets, on Alibaba's TaoBao.com.

Giro is a US brand owned by BRG Sports. Martin H. Nguyen, BRG's in-house legal counsel, told Bicycle Retailer that there are no genuine Giro products on TaoBao.com:

"The images depicted on TaoBao.com for supposed Giro products show components, geometries, orientation, size, and labels that are inconsistent with Giro factory specifications. Also, no Giro reseller or distributor is authorized to market or sell through online marketplaces without express written authorization given on a case-by-case basis. Currently, TaoBao.com is not an authorized marketplace, so any purported Giro products sold on TaoBao.com are presumptively considered counterfeit and are treated as such."

Giro's executive vice president and general manager Greg Shapleigh told BikeBiz:

"Giro has always taken the position that counterfeit products in the helmet industry pose a significant risk to public safety. For this reason, we work hard to educate the cycling community about the importance of eradicating counterfeit products and, where necessary and appropriate, we participate in a wide array of counterfeit suppression and eradication efforts, including cooperating with federal investigations."

In a warning to consumers about "fake bicycle helmets that break upon impact", Michael Walsh, the director of America's Customs and Border Protection's IPR Policy and Programs Division said: "We ask that shoppers be wary and do their homework. Counterfeit and pirated goods are poor quality, harm legitimate businesses, and can pose health and safety risks to US consumers."

“They’re just bits of plastic” – why cyclists buy fake Oakleys

Oakley Radarlock sunglasses retail for £175. An almost identical pair – but fake – can be bought online for £20, shipped. Fake Oakleys are so common they are known as “Foakleys,” a portmanteau of “faux” and “Oakley.”

Foakley is such an accepted word that websites openly sell “Foakley” glasses. For instance, sunglasses.narialis.com claims to be a US company with a US address, and sells Foakley Radarlocks for \$13 – it has the Oakley logo at the top of the homepage but the word “Foakley” is all over the site, and it openly states that the glasses are knock-offs. Of course, the site isn’t really US-based: it ships via EMS, the Chinese state-owned courier firm.

But this is far from the only website selling Oakley knock-offs. There are Foakley sellers on Alibaba, DHgate, and other Chinese online merchants. A British cycle industry executive told BikeBiz that all of the riders in his cycling club who wore Oakley’s have, in fact, been wearing Foakleys for at least the past couple of years.

Of all the counterfeit cycle products available the most ubiquitous are Oakley sunglasses - fake Oaks are known as "Foakleys."

“Determining if they are real or counterfeit can be difficult,” admits Oakley on an official FAQ. Indeed, purchasers of fake Oakleys have found that the lenses and other parts are interchangeable with genuine Oakleys. An often seen claim online is that the fakes fry eyes because, unlike expensive and genuine Oakleys, they let through ultra-violet radiation. This is not true. Fake Oaks have been lab-tested and found to block UV-A and UV-B.

Oakley lenses are made from polycarbonate, and so are the fake lenses. An intrinsic property of polycarbonate is that it blocks UV.

“I don’t want to pay what Oakley are charging; they’re just bits of plastic,” is a common complaint on cycle forums and



chat-rooms. People who wouldn't buy fake bicycle frames or fake parts aren't so fastidious when it comes to Foakleys, as can be seen from the interviews BikeBiz has conducted with three purchasers. Consumers feel they're being "ripped off."



Oakley is owned by the \$8.3bn Luxottica Group of Italy, the world's largest eyewear company. 81-year-old Leonardo Del Vecchio, the group's founder, bestrides the sector like a Ray-Ban-wearing Colossus (Luxottica also owns Ray-Ban). Luxottica acquired Oakley for \$2.1bn in 2007. The group also makes and distributes eyewear brands such as Chanel, Prada, Giorgio Armani, Burberry, and Versace.

Luxottica doesn't just dominate manufacturing and distribution it also dominates retail: it owns 7000 stores around the world, including Sunglass Hut, the market leader. When pre-takeover, Oakley was starved of access to Sunglass Hut its stock plummeted making the sale to Luxottica a foregone conclusion.



Mark
"CyclingMaven"
Ferguson

TAKEN FOR A RIDE

Mark Ferguson of Melbourne, Australia, is in surgical device sales. He vlogs as "CyclingMaven". One of his most popular videos is on the technical merits of Foakleys.

"We pay a premium for a lot of things in Australia. My Oakleys, with lenses, were pushing nearly AU \$600. I put them on a [bike storage]

cage; within a few hours, they were gone. To replace them was going to be expensive. Somebody sent me a link at Aliexpress. My original thought was "no"; it didn't feel right. But curiosity got the better of me, and I bought some. And the quality was shocking – I couldn't believe how good they were. For \$30.

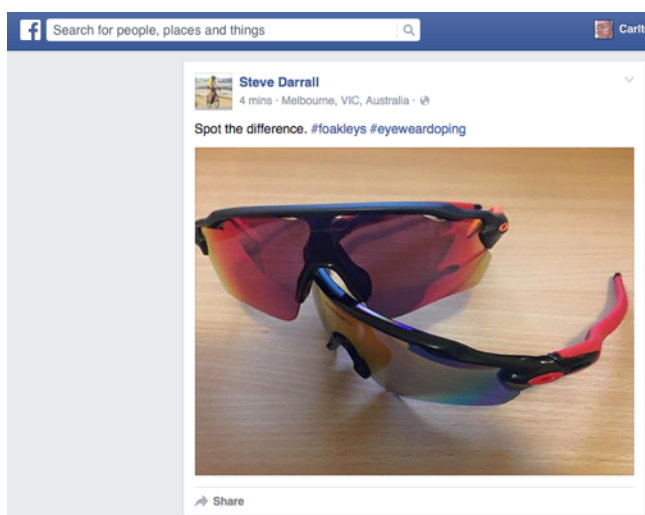
"Are they made in the same factory as Oakleys? I don't know, but a lot of people who buy these fakes will rationalise it that

way. Not everybody feels comfortable buying counterfeit products.

“The anti-establishment side of me says, look, here’s a company selling bits of plastic for AU\$500. In my mind, they’re ripping people off. I don’t care about the research and development. There’s always going to be somebody innovating. If Oakley were to disappear off the face of the earth tomorrow, some other company would replace them, and probably wouldn’t charge as much money for their products. These companies bend people over; they take them for a ride. In that situation I’ve got no issues with exploring the counterfeit product side of things.

“My “Foakley” videos have blown up. They’re getting a lot of attention, a lot of people are now buying fake Oakleys. Looking at the comments, and how it’s having an impact on other companies because people are now exploring other options, makes me think “damn, that’s not good.” I don’t feel personally responsible because this market is going to happen whether I did a video on it or not, but in retrospect, it’s not great. To promote counterfeit products is not great, it has impact across other areas.

“This whole thing stems from a big company like Oakley charging exorbitant fees, so this is my way of saying “fuck you”. I’ve always been a bit of a rebel.”



BETTER THINGS TO SPEND MY MONEY ON

Steve Darrall of Melbourne, Australia, works in IT security.

“I ride 30k each way to work – I wear stuff out. We get stiffed on so many products [in Australia]. It’s so much more expensive here. Along with a mate, I bought some bright orange and white Jawbreaker copies. We have “Foakley Fridays”, looking like complete idiots.

“I tell people they’re fake. I put the Foakleys next to my genuine Oakleys on a Facebook posting. It’s for the look, not the brand.



“I prefer the Foakleys – I find the lens are a bit clearer. For 25 dollars, they’re disposable.

“I bought them two minutes after seeing the first Cycling Maven video.

“I want to know my helmet has been tested and passes standards, I’m not so fussed about glasses. I have better things to spend my money on. I want more bikes or more Lego for my son.”

I TELL OTHER PEOPLE THEY’RE FAKE

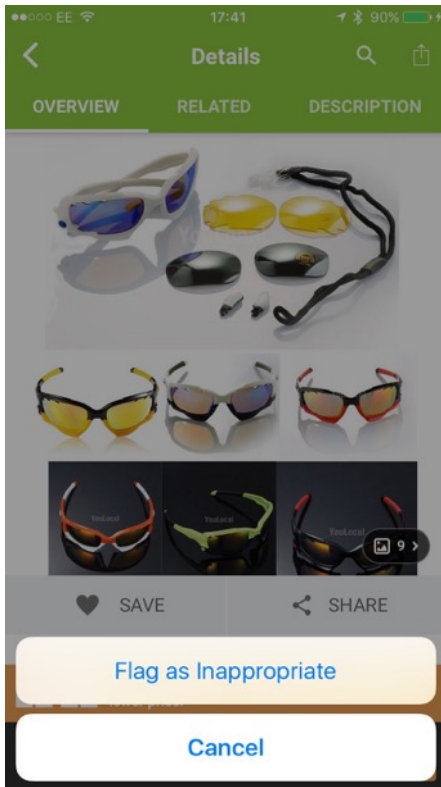
Eric – not this real name – is a hospital consultant from Bristol.

“I don’t like spending lots of money on sunglasses because I lose them, or they fall off my hat and get scratched or run over.

“Whenever I handled Oakley glasses owned by friends I thought “these are just bits of plastic with some nice branding on them.” I searched on eBay for “cycling sunglasses” and found a pair that bore a striking resemblance to Oakley Jawbones and another pair that bore a striking resemblance to Oakley Radarlocks. They were about £8 each, delivered from China. They didn’t have the Oakley branding on the photos on the eBay listing but when the Jawbones arrived they had Oakley branding, including “Made in the USA” stamped on the arms, and the oval Oakley emblem was where you’d expect to see it. They were indistinguishable from genuine Jawbones. They fitted well (but the arm broke after a couple of months).

“The “Radarlocks” came with free lenses and a case. They fitted really well, and I’m still using them.

“I tell other people they’re fake. There’s perverse satisfaction in getting something cheaper than somebody else. I have no brand loyalty, I didn’t get them for the cachet of the brand, I just want them to keep the bugs out of my eyes, and not be upset when I inevitably lose them.



“When I see Oakleys out in the wild I look at them critically. The brand is diluted by all the fakes out there.

“I bought fakes because I have terrible trouble getting sunglasses that fit so I didn’t want to spend a huge amount of money on a trial and error purchase. £8 means they’re throwaway.

“I had a hot debate with a guy who said his optician had said you couldn’t get adequate UV-A and -B protection in any sunglasses for under £20 a lens. I took mine down to the medical physics lab in my hospital, and the chap who tests all the equipment for the dermatology UV labs has the machinery to test UV-A and -B. I also took some expensive and real Ted Baker casual sunglasses, too. They all passed 100 percent.

“The lab manager said it was difficult to get polycarbonate plastic that lets UV-A and -B through – he needs it for some of his applications and needs to buy it from a special source. By default polycarbonate doesn’t let UV through. When manufacturers say you’ll be blinded if you wear cheap sunglasses that’s not a very strong case at all.

“I wouldn’t buy fake carbon parts. I’ve bought cheap tools from China, things like spoke keys for pennies.

“My friends are indifferent; they don’t give much of a stuff.

“There are a few chaps in the club who have to have the latest expensive thing. I haven’t talked to them about fakes, partly because I don’t want to piss on their parade.

“I could afford to buy the real thing. The reason I don’t always is the same reason I buy a £1 loaf of bread in Tesco instead of from an artisan baker and pay £20 for a loaf that’s been brought over from France that morning by private jet.

“You want something that does the job for a reasonable amount of money. And to me a pair of sunglasses for £100 or more is excessive.

“I’m prepared to spend large amounts of money on some things. This might not be rational, but it’s how I view things.



“Terrorism, child labour? It hasn’t occurred to me. Not for bike parts. It’s potent food for thought. If it’s true, that would put me right off.

“These could be messages put out by large corporations with vested interests when all I’m probably doing is supporting a small Chinese business.

“I never bought any pirated DVDs. I certainly downloaded some stuff from Napster back in the day. Now it’s just quicker and easier to buy from legitimate sources.

“I bought a Castelli Gabba jersey last Autumn and was perfectly prepared to pay full whack because of the functionality of it. If I snagged it tomorrow, I’d buy another one.

“I understand the price of the plastic in a pair of Oakley’s is only a small part of their costs, but I don’t want to pay for their marketing and their sponsorship, I am only willing to pay for the product.”

Don’t mess with the mafia – is it dangerous to expose the fakers?

“Don’t name me – it could be life-threatening; we’re really talking mafia behind the counterfeiting.” That was the request and claim from one of the bike industry executives BikeBiz spoke to for this Faking It series of articles.

Tussling with the Triads is not to be recommended, says bike boss.

He also warned I was in danger: “If you travel to China in the next few months and go to where the factories are [the Triads] will want to get rid of you. It’s no joke playing with those guys. I wouldn’t write the articles with your real name. The territory where these products are manufactured is 50 kilometres around Hong Kong – they can

get rid of you very easily.”

That the fakers are mixed up with the mafia is a sincerely held belief. Very few industry executives would go on the record for this BikeBiz feature series, partly because counterfeiting is a problem few are willing to discuss publicly but also because Western executives believe they may fall foul of one of the many Triad gangs in China. While there's plenty of evidence Triad gangs operate in the lucrative trade in counterfeit drugs there's no evidence they have any interests in the faking of aero frames or Rapha bib-shorts.

If the factories making the fakes aren't run by out and out criminals some of them are operated – or protected – by street-tough thugs.



Fakers can be
fiercely uncouth.

Hugo Davidson, the CEO and founder of Knog, the Australian locks-to-lights brand, told BikeBiz:

“At the Shanghai show I paid a visit to a stand showing fakes of our products, and I was strangled by the company owner – he used my show pass and lanyard to lasso me, and threw me off the stand.”

Michele Provera of Convey of Italy, an IP-protection consultancy which works for 3T, Pinarello and many other bike brands, wouldn't provide a mugshot for this series of articles.

“We do not feel like disclosing our faces,” he told BikeBiz. “Maybe this is over prudent? Who knows?”

He added: “Since we are shutting down the business of tens of thousands of Chinese counterfeiters, we receive all kinds of threats on a daily basis, via email, phone, and traditional mail. And since I am overseeing all the activities, every take-down process is started in my name.”

The threats he receives may be little more than the hot-air that comes out of carbon lay-up “hair driers” but they are disturbing nonetheless. One email starts with an innocuous “how are you doing” but goes on to describe violent sexual assaults on multiple members of Provera's family.



Mob or sob
story?

(The counterfeiters also use their own families in an attempt to throw investigators off the scent – one Chinese counterfeiter asked Convey to leave him alone because “I cannot live without this store. I have small children.”)

Andrew Love, Specialized’s counterfeit investigator, also gets sent threats, “including some insults in Chinese that translate to “may you eat rice 365 days a year,” he says. However, he doesn’t lose any sleep over the threats:

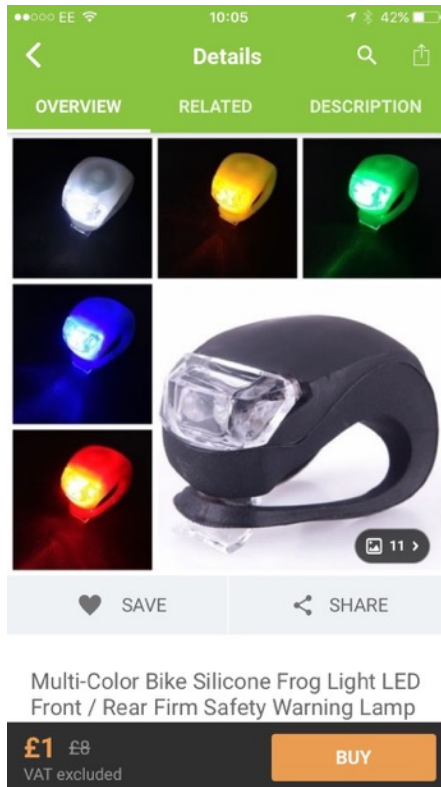
“These are mostly economic criminals, not drug gangs who use violence as an everyday tool.”

On your marques – what can manufacturers do to foil the fakers?

As well of employing in-house anti-counterfeit investigators such as Andrew Love at Specialized, or external take-down specialists such as Convey’s Michele Provera, bike- and parts-manufacturers could use monitoring services such as MarkMonitor Brand Protection which uses patented detection technology to scour the web for retailers selling fake goods. These online services have automated enforcement mechanisms including auction de-listings, payment processing de-activation, and can also send cease and desist letters and site take-down advisories to ISPs.

It's not easy to stymie the copiers, but there are overt, covert, legal-eagle and forensic authentication systems that can help.

Litigation as a form of IP protection is an option for some brands. Knog of Australia makes lights and locks and recently cleared more than one million Australian dollars for a bicycle bell it placed on Kickstarter. Known for its edgy marketing, and out-there exhibition booths, the brand was created in 2003 by Malcolm McKechnie and Hugo Davidson, an industrial



Knog's Frogs are still being copied by the fakers.

designer. Knog's Frog lights – silicone-covered LEDs known as “hipster cysts” to BikeSnobNYC – were the brand's first runaway success. They were also copied to death.

According to Knog's website the company is “committed to protecting the integrity of our branding and design by securing registered trademarks, designs and patents in Europe and throughout the world. Our patents protect the innovation and inventiveness that go into our products. Our designs protect the unique appearance of our products. Our trademarks help you to identify the real Knog products from the “Knog-offs.””

Davidson told BikeBiz that protecting Knog's IP “costs us a lot of money.” The legal stuff is farmed out to a patent attorney.

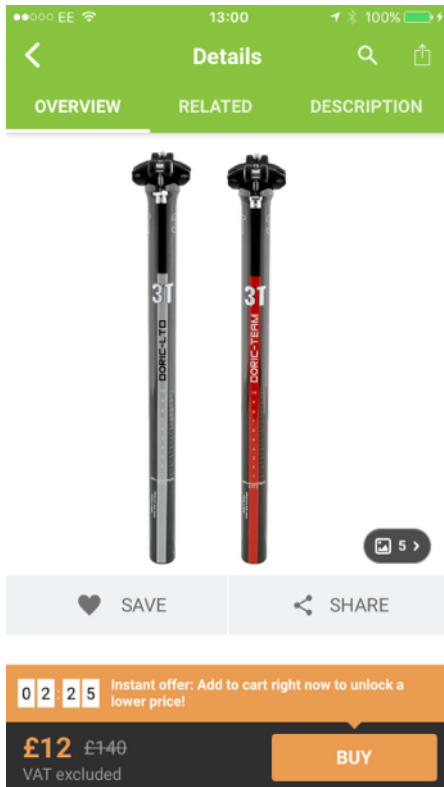
“When we have a new product, or we need something that needs protection, that can take one of the company directors and three staff two weeks of rock-solid work,” says Davidson. “If we go in battling to stop somebody it's awfully labour intensive; 150 to 300 hours of work typically.”

Knog's first range of silicone-wrapped lights was easy to copy. “When the copies came out we saw an immediate 40 percent drop in sales,” says Davidson.

“We went to a Shanghai patent attorney, and found the factories that were doing the copying, but it was very clear that they would start up again easily if we closed them down. It's like playing Whack-a-mole – as soon as you hit one, another pops up somewhere else.

“We changed tack and moved to stop exports leaving the Chinese market by registering our patents in China rather than local markets.

“The fakers don't just copy product and therefore take away sales they can also destroy a whole category. The reputation of using silicone for bike lights was damaged so much that people didn't want to buy our high-quality silicone products because they'd bought rubbish ones – that put all silicone products in the same camp. Silicone lights were seen as a low-cost, low-quality product. Out of 65 markets we were selling into at the time maybe only six or seven markets –



Fake 3T seat
posts on sale on
the Geek app.

such as Germany and Switzerland, which kept faith with the brand and weren't flooded with Chinese copies – kept on importing our silicone products, the rest had been put off by the cheap copies. The markets buying on price rather than branding are impacted the most.”

For Davidson and Knog the secret is to get your retaliation in first:

“You can't avoid releasing product because factories are going to copy it. What we learned through the silicone lights was we need to be jumping on the fakers much earlier than we had been doing. We didn't originally see that storm coming. Much of the early stuff we did to tackle the fakers was after the horse had bolted. We now work with our patent attorneys to have a strategy that results in actions early on rather than let them fester. This doesn't stop factories from copying, but we're much more aggressive in how we deal with them earlier on.”

Rene Wiertz, president and CEO of component brand 3T, said his company joined others in the industry by retaining Convey to handle take-downs and other forms of IP protection, but he also introduced a tracking system including costly holographic hallmarks. 3T also includes anti-counterfeiting messages on advertising. Innovation is also key, said Wiertz: “We upped the tempo of new-product releases, so counterfeiters are always behind the curve.”

According to cycle-mad lawyer Robert Cummings of northern-England-based trademark attorney firm Appleyard Lees, there are various measures brands can take to minimise the risk of counterfeits and to enforce design rights:

“Register your trade marks, designs and patents, in your principal country of sale and any markets of present or future interest, as well as your place of manufacture and also any country which is known for counterfeit manufacture and distribution. Not only will this help you to enforce your rights but it allows you to freely manufacture and distribute your products. If, for example, a counterfeiter registers your brand in China, it could actually stop you from manufacturing and exporting your own products. Get there first.”

“You can also register your trade mark and designs with UK and foreign customs authorities. China’s customs enforcement is continually improving and with the rise of the AIC (China’s anti-counterfeiting body which employs 500,000 people), it’s now more important than ever to register in China.

“Monitor online websites and file regular take-down notices. By hitting the merchants, this can deter and damage infringers. Eventually, they will chase a softer target.

“Document your design processes. If any when you need to enforce your rights, you may need to evidence your ownership and creation of your original products.”

Mark Sanders of Strida doesn't recommend registering in every market - patent protection is expensive in the first place, and prohibitively expensive to police.

There are also real-world things that manufacturers can do to protect their products – there are numerous tech tagging solutions on the marketplace, and not all of them are just for big-ticket items. (Of course, tagging systems are not effective at stopping those consumers who knowingly and willingly buying fake frames and parts.)

PROOFTAG

More normally found identifying bottles of upscale wine ProofTag is a French tagging system that uses a “Bubble Seal” affixed to a product. Next to the random set of bubbles is a numeric code that can be checked online. As well as providing proof of a product’s provenance the code can link to generic marketing information: it’s a QR code on steroids. ProofTag’s bubble seal – which also shows evidence of tampering – is made from a polymer subjected to heat, producing a unique three-dimensional air-pocket pattern of bubbles that can’t be copied.

IZON

The Izon Traceology tracking system from DuPont is a cloud-based product-verification system that tracks products and provides information such as batch, lot, and part number. The system uses 2D barcodes.



TRUTAG

TruTag of the US produces “micro-tags”, dust-sized particles made of silicon dioxide and embedded with customisable identification data that can be read by handheld optical readers.

SIGNATURE DNA

Applied DNA Sciences Inc. of Stony Brook, N.Y., makes a code that can be embedded into ink on a protective label. The code is made from plant DNA. SigNature DNA is patented and produces a code readable by a hand-held device.

FYEO

Unlike hologram labels which are now easy enough to fake Nautilus Security of Northern Ireland produces “Tilt to View” labels that can be applied to paper, metals and plastics. The company also produces “Invisible Images”, the nano-embossing of a mark that can only be viewed by a proprietary, but cheap, lens.

BLOCKCHAIN

Blockchain Tech of British Columbia produces a register secured by the encryption technology that underpins bitcoin. The block chain is a gargantuan database with so many duplicates it can't be gamed. The system can track a product from the assembly line to a distributor on to a retailer and then to its eventual rightful owner.

Get real – how and why to avoid buying a fake

Low price too
good to be true?
Then it's possibly
fake ...

Price is the obvious first factor to take into consideration when working out whether you're buying the genuine article or a clever fake. But it's not the only factor, and in some cases it's not as relevant as you might imagine – some unscrupulous suppliers and shops have been known to seed stocks of real goods with fake ones.

The CEO of a top European bike brand told BikeBiz: “There are crooked distributors out there, especially in Asia. They add a few counterfeits amongst their real ones.”

And the rewards make these risks worthwhile, adds the executive, who prefers to remain nameless: “A distributor normally works on a 30 to 40 percent mark-up. If the frame cost \$5000 retail the distributor would pay \$2500 but [with counterfeit frames] instead he now pays \$500, giving him \$2000 extra profit on one frame. If you only mix 20 percent of the product with this, you're doubling the profit of your company.”

Naturally, quality of the delivered product is also a key determinant of fakeness, but when buying unseen via the internet, there's no chance to prod, probe, stroke or handle.

“It's easy to spot counterfeit clothing products because of poor quality fabrics,” says our leading CEO. “On frames, you can't tell.”

In truth, it's not even possible to check the quality of bona fide bicycle frames because so much of the goodness is beneath the surface but all that glistens is not gold, and it's important to realise that photographs of products on the internet may be just as fake as the products you're sent. Ditto for UCI homologation decals and any other stickers or labels which you may think add authenticity.

Not everything available from Chinese sellers is fake, but a Chinese address is a red flag – of the warning variety, not the political kind.

Businesses based in Indonesia are also of potential harm to your bank balance, not so much because they will ship you



fake goods but because they won't ship you anything at all. It's the websites and the deals that are fake.

Here are some more pointers on working out if you're about to buy a fake:

Does the store have a website away from the retail marketplace? If not, why not? Best to steer clear.

Is the shop an "official" stockist? Brand websites – especially for those which market big ticket items – will have lists of official dealers. If the shop you're looking at isn't on one of those lists it may not be legit. Some brands don't allow online sales whatsoever, so if you see products on websites from brands with this policy, then there's a rabbit away.

Are the product listings complete? Does the online merchant want you to email for colour options, price or type of graphics? This is probably an indication the retailer is flying low, aiming to keep product details – and product photos – away from online search engines, pesky IP lawyers, and fake-spotting algorithms.

Take online reviews with a pinch of salt. If a manufacturer is unscrupulous enough to make a fake, it's also going to manufacture reviews. A 5-star rating is no guarantee of realness.

Look out for spelling mistakes – being guilty of poor grammar and sloppy spelling isn't a crime, but it's at least one of the indicators of dodgy dealing.

Google is your friend. Cut and paste the name of the retailer into a well-known search engine and add key words such as "fake," "counterfeit" and "scam" to see if others have been bitten before you.

Sites that request payment by bank transfer instead of credit card or PayPal are highly likely to be suspect.

If it all goes pear-shaped how easy will it be to get a refund, get a replacement product or – should an injury occur – sue the supplier of the bike or part which wasn't up to scratch? If you buy on cost alone, and buy from China, it's caveat emptor, buyer beware. Sending a product back to China to get a refund can quickly wipe out the original cost savings.

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