Green issues

Delicious, fashionable and oh-so good for you, avocados are big business – but behind the Instagram-friendly superfood lies a murky world of ecological collapse, drug cartels and brutal murders. Violet Henderson investigates

Photographs by Erwan Frotin

Later this year, somewhere in central London, a daily extravaganza called Avolution will celebrate the avocado as a curious quirk of our time. Here, adults will be given the opportunity to frolic in a plastic-avocado ball pit, to sew avocado-shaped cushions and even button themselves into avocado sumo suits and smash into each other in a game of "human guacamole". For those watching from the sidelines there will be chips and – you guessed it – avocado dips. Avolution evolved (of course it did) from last year's grossly successful avocado appreciation brunch, Avopopup, also the brainchild of event organiser Meredith O'Shaughnessy. From quinoa-dipped to ice cream to macarons, Avopopup dished up six courses of avocado, and there are plans in the works to take the "concept" to America and Dubai. According to O'Shaughnessy, "The avocado has captured people's imagination because it is a fruit which doesn't take itself too seriously."

Which could just be the crowning of hipster absurdity, although Miley Cyrus did get an avocado tattooed on to her left tricep. And yet the fruit, whose name derives from the Aztec *ahuacatl* (meaning *testicle*, because it grows in pairs and hangs heavy from its tree), has become absurdly, ubiquitously popular. Every day, 3 million new pictures of it – whole, halved, slathered on wholemeal gluten-free toast – are posted on Instagram. (And that's not counting the many, many avocado memes – today's ultimate measure of cultural influence – that regram across social media bearing cute messages of the "let's avocuddle" variety.) Last year, 5 million avocados passed through Pret A Manger's kitchens, more than double the number that did in 2013, and today 12 of its products contain avocado, which is savvy because avocado sells. In 2015 British shoppers spent £142 million on their avocados, while in the same year, in America, the largest global avocado consumer, 4 billion were eaten (an estimated 300,000 of them in Los Angeles). Over in China, 33 shipping containers of avocados are delivered weekly on to its shores; three years ago the country didn't import a single avocado.

The avocado's meteoric rise owes much, in recent years, to celebrity endorsement. Gwyneth Paltrow is a fan, Kim Kardashian too, and after Nigella Lawson showed the television-watching public how to "cook" avocado on toast, Waitrose reported a 30 per cent rise in sales. But before the avocado got among this heady company, there were PR firms pushing it. In the Nineties, New York's Hill & Knowlton etched the fruit into the public consciousness by turning them into a cheerful cartoon, while London's Richmond Towers distributed pamphlets with recipes and explanations. The avocado might have been first tasted on British shores in the 17th century, brought back from South America by explorers, but it only became widely available more recently. (Sainsbury's and Marks & Spencer had a public squabble over which was first to put an avocado on its shelves. It was Sainsbury's, in 1962.) It was marketed then as the avocado pear, because of its shape, but the suffix was soon lost as uninitiated shoppers were eating it like one. Nonetheless, the avocado gained traction in a postwar, post-ration era that was hungry for new experiences. Cue the Seventies and avocado vinaigrette, prawn cocktail dolloped in halved avocados, avocado bathroom suites. The avocado had arrived.

Its pleasingly tasteless, versatile flesh is not, however, the summation of the fruit's >

appeal. The avocado is now outselling satsumas in December, because it is good for you. Really very good for you. It is an excellent source of monounsaturated fatty acids, otherwise known as "healthy fats", which can reduce "bad cholesterol" and heart disease. It is high in fibre (which promotes healthy digestion and reduces the blood-sugar spikes that make you feel hungry); it is a source of protein, potassium (which keeps blood pressure low and maintains the electrical gradient in the body's cells) and folate (which plays a role in DNA synthesis and repair). Then there is the fruit's beguiling, bankable mix of vitamin E (fights free radicals, repairs damaged skin), vitamin K (used by the body in blood clotting) and vitamin C (which keeps cells healthy). It is good for you even when you don't eat it. "Applied to the skin, its oils – omega 9 and oleic acid, which is the closest naturally occurring chemical to the skin's own oils – are highly moisturising. Skin beneath an avocado mask becomes soft and supple," says facialist Abigail Jones.

For a growing global spending community beguiled by "wellness" – that annoyingly ubiquitous, zeitgeist-fuelled noun that denotes anything remotely connected to the pursuit of health – the avocado is manna. It can be used to thicken green juices, as a vegan substitute for dairy and meat, and it requires little preparation before eating. The act of simply smashing an avocado into a palatable purée and adding lemon juice, salt, pepper and chilli flakes suddenly gives you access to a wider movement in which people feel more "connected" to their food because they have prepared it (even if that preparation took less than two minutes), and more connected to their bodies because they have chosen an avocado to put into them. As a symbol, then, the avocado is democratic; it says anyone can be healthy, and inhering in its chipper green flesh are all the smiling, sunny connotations of those ridiculously good-looking health bloggers – Deliciously Ella, the Hemsley sisters, Madeleine Shaw – who promote it.

Little wonder, then, that there is now an avocado deficit – near-on a luxury food crisis – in which demand for the avocado is exceeding supply. Prices have risen: at the time of writing, a single avocado on Ocado is 29p more expensive than it was in March last year. They are big business, too – so much so that in Latin America, where avocado trees have been growing since 7000BC, the fruit has earned the nickname "green gold" because it yields more profit per acre than most other crops, including marijuana. Problem is, asis often the way with big business, growing green gold in increasing quantities can inflict unpalatable social and ecological costs.

The Mexican state of Michoacan sits in the southwest of the country. Its wide, white beaches border the Pacific Ocean, and from there the verdant hills climb towards a volcanic field – the last eruption was in 1952 – that has left a fertile legacy of ash in the soil. As a result, many crops grow very well in Michoacan (better, in fact, than anywhere else in Mexico), and that includes the avocado, which likes altitude – 1,500 metres or more above sea level – and rain. Ninety-two per cent of Mexico's avocado production comes from this state, which becomes all the more impressive when you consider that between 2015 and 2016 Mexico exported one million tonnes of avocados – 800,000 more than its closest competitor, Indonesia.

It is Mexico's widely publicised tragedy that where there is money made, drug cartels circle, savvy to the opportunities of business diversification. By 2012, Michoacan's avocado production, like its lemon and timber industries, was crippled by extortion, kidnapping and many, many murders, all at the bloody hands of Los Caballeros Templarios – a cartel that swears allegiance to a bastardised version of a medieval chivalric code. Under its deadly influence, illegal plantations had sprung up all over the state, felling ancient pine species to make room, resulting in soil erosion and a diminished winter home for the monarch butterfly. In February 2013, the avocado growers who were still in business (and many smaller farmers unable to pay the extortionists were not) clubbed together to hire heavily armed private militias to protect their crops. The Mexican government didn't just allow this; many journalists, including Camilo Olarte – an investigative reporter who spoke to *Vogue* from Mexico City – believe it helped to fund them.

The armed militias succeeded where even the army had failed. Olarte tells me that from 2013 to 2015, all was relatively calm. "There were no more extortions. The avocado producers were paying only $100 per month to the drug cartels. They were happy," he says. But Michoacan is a complicated place, and Olarte has been observing new volatilities in recent months. "There are more than 20,000 avocado producers in Michoacan, but the foreign export of their avocados is almost entirely controlled by the APEAM trade association. When the association lowered the price it set for the fruit, there was nearly an armed rebellion. The growers went on strike. That was October last year. Whether it is now under control is not very clear." What was clear was the effect this strike had on America's market supply. Guacamole was dropped from New York restaurant menus, while grocers in the city doubled their prices for the fruit. Circumstances that could become entrenched if Donald Trump really does build that wall and inflict its gargantuan cost on Mexico, via a 20 per cent tax on imports, as was briefly mooted by a White House press secretary. Today the atmosphere in Michoacan remains tense. Some roads are now controlled by an armed militia that has set up roadblocks to limit movement into municipalities. In Tierra Caliente – Spanish

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for *hot land* – an area that sprawls across a corner of Michoacan and is fecund with opium and ephedra plants (which are later turned into methamphetamine), there may be a worrying foreshadowing of what is to come elsewhere in the state. "There is a new cartel at work there, known as H3," says Olarte. "It is using extraordinary violence. Homicides are as high now as they were in 2012. H3 is a breakaway militia: it once defended agriculture in the region and is now criminalised."

All of which seems a quantum leap from the city cliché of brunch served on a distressed wooden table by a waiter in a plaid shirt, featuring bread that accommodates food intolerances, and, of course, avocado. But the chances are, that trendy avocado was Mexican – after all, the country supplies 45 per cent of the international market and in particular it grows the Hass variety, heralded as the most delicious avocado cultivar thanks to its high fat content. When I ask Avolution's O'Shaughnessy if it is important to her where she sources the many avocados her customers will eat, she is quick to respond. "We don't buy avocados from Mexico." But is this the right approach? Olarte tells me of a group of radical farmers who are trying to bypass the control of the avocado associations and export directly to foreign countries. The logic here is clear: fewer people involved in the production chain, so fewer weak links for exploitation. It would be a gross generalisation to suggest that every Mexican avocado lines the pockets of drug cartels, even if Olarte says that all of Michoacan's economy is, in an indirect sense, linked to them. Boycotting Mexican avocados could punish small farmers who depend on their sales. Although the clear issue for the conscious consumer is that there is no way to be sure you are buying the "right" Mexican avocado.

Mexico is not the avocado's only troubled home. Chile's avocado groves are located in a range of latitudes similar to those in California, but in the southern hemisphere. So when California has its winter, Chile can fill the gap in the market. It is the eighth-largest producer of avocados in the world, but many of its valleys don't have nearly enough water to cater for this scale of export: before an avocado is picked, it will have drunk a whole bathtub of water. Jessica Budd, a senior lecturer in geography at the University of East Anglia, last visited La Ligua in Chile in 2014, where she witnessed what happens when a valley is drained to feed the fruit's considerable thirst. "The whole landscape was dry, bare and dusty," she says. "Fields were abandoned, some no longer viable for any agricultural purpose. Many of the smaller farmers were forced to abandon their farms and seek paid labour elsewhere."

In the end, the availability of water is a question of money. During a drought the big avocado farms, owned either by multinational companies or rich Chilean landowners, can afford to bring water in on trucks or, more typically, to use expensive machinery to make their wells deeper, meaning the water table for the whole region drops, and those who can afford only shallow wells are left without water either for their crops, or to drink. "Groundwater in Chile is very prone to theft because there is hardly any government regulation," says Budd. In fact, small farmers who diversify into green gold are given grants to do so by the government, masking the risk involved in their new business. Unlike traditional crops – maize or beans – avocado saplings take three years to grow into a fruit-bearing tree. That's three years without income. When the fruits come in – if the fruits come in – they are highly labour-intensive to pick by hand. Avocados are susceptible to drought and disease, which can knock out the whole crop not just for that year but for good. Few small farmers would have the finances to restart the process; instead they would be (and have been) ruined.

> Avocado growers clubbed together to hire heavily armed private militias to protect their crops

Later, Budd says something surprising. "No one in La Ligua views the avocado plantations as sustainable farming. They are perceived as a 10-year cash crop. After that the trees will be old, the soil eroded and worthless, unable to support any crop without significant amounts of fertiliser. The long-term plan is just to move on and find a new patch."

There is some good news. In Peru, the World Bank identified areas in which the Hass avocado would grow well, and embarked on a long-term project to educate communities on sustainable avocado farming, while also offering them financial support to set up their farms. The Dominican Republic has a huge potential for increased avocado production, and the avocado (although not always the Hass variety) grows very easily in its high tropical fields. Spain's avocado production is small, but the government is beginning to see the value of investing in it; while Israeli avocados are grown with exemplary practice (when the fruit isn't destroyed by frost). Anyone who really cares about the environment should never buy an avocado from New Zealand in a British grocer, as each fruit generates 1.36 tonnes of carbon emissions – but it is worth noting for markets near the country that the avocado grows well there (so well, in fact, that in the past year there has been a spate of large-scale thefts from farms). And in California, which until last winter's storms had been experiencing its sixth year of drought, agricultural scientists are working with producers to create an avocado that needs less water. For the organic purist, the prospect of the ultimate health food being genetically modified will be unappealing. But for areas where Wholefoods doesn't have a store, it may save livelihoods, even lives.

The simplest course of action would, of course, be to eat fewer avocados, to reclassify them in the cultural cognisance as a weekly treat instead of a daily necessity. But, as avocado advocate and wellness tastemaker Madeleine Shaw tells *Vogue*, "When they are so good, it's hard not eating one after another." To experience avocado health benefits, Shaw recommends "half an avocado a day". And she is not totally unaware of the problems besetting the avocado market. "When you eat too much of anything," she muses, "it puts a strain on resources. And avocado trees take a long time to grow. They aren't like berries" – although, technically, the avocado *is* a berry. She just hopes that pressure on the market will mean that new farms will emerge closer to Britain. I suspect Shaw doesn't know very much about avocado farming, despite her uncle owning a plantation in New Zealand.

There are actually alternatives to avocados. You could always get your hit of mono-saturated fatty acids, fibre, potassium, vitamin E and folate by frying kale in olive oil, and washing that down with a satsuma for some vitamin C. And when you do buy avocados, you can shop responsibly. A Soil Association organic sticker will mean that this independent body has verified the practices of the farm that grew the avocado. Try to resist buying ready-ripened avocados because supermarkets ripen fruit by pumping hot air through them, a further pollutant. Avocados can ripen easily at home: that old trick of putting the fruit in a paper bag with a banana for a day or two really does work. If you need an avocado to be soft instantly, wrap the fruit in foil, bake it in the oven at 200C for 10 minutes to release its own ripening agent, ethylene gas, and then leave it to cool. On the flipside, every year thousands of avocados go to waste because they spoil in people's cupboards. So eat that avocado, because wherever it came from, a considerable cost went into producing it. ■