THE ORCHID EATERS

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Wild orchids are objects of desire for their exotic beauty, their colours and their fascinating structure. Zambians, however, covet orchid tubers, which are cooked into a nutricious, cheap dish called *chikanda*. Aisling Irwin explores what has become a national obsession and finds that these striking plants are being eaten into extinction…

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Bellies shimmer on the lawns of Lusaka's Intercontinental Hotel as the dancers stamp out their Zambian rhythms. It is traditional night, and wealthy locals and tourists alike are feasting beside the pool on braised antelope and maize *nshima* (porridge). With a flourish, a waiter lifts one of the silver cloches. There, between the pumpkin leaves and the impala, lies the dish Zambians covet most of all – a smooth, brown, flecked mass, bathed in a nutty sauce. This is *chikanda*. A hundred wild orchids went into its making.

Orchids are disappearing fast in parts of central and southern Africa, where they are prized not for their beauty, their strange and complex floral structure or their peculiar likenesses to living creatures, but for their small, hard tubers that lie beneath the soil. It is these that peasants are digging from remote swamps and woodlands, driving orchids to the brink of extinction.

Eating *chikanda* is an ancient tradition of Zambia's northern Bemba tribe but, in the past few years, its popularity has spread across the country, entrancing all layers of society. The demand has spread so quickly that there has been no time to control or harness it. Orchid flowers that might one day have made money on the lucrative international market are disappearing, and a food that could have generated a steady income for rural Zambians is instead destined to expire within a few years.

Meanwhile, *chikanda* adorns the tables of the urban middle classes, and delights guests at weddings and traditional festivities. Lower down the social scale, the pale brown slices provide a cheap food for Zambia's legions of poor.

It is late evening in Ona Classic Bar, a bare room in the depths of Lusaka's Kabwata township. The proprietor is already oiled on mugs of gin, and his customers are slowly catching up on local beer. Then Annie appears, small and sober. She carries on her head a bowl of salty, spicy *chikanda*, ideal for mopping up a stomach full of beer. Within seconds a crowd of incoherent men surrounds her kneeling form, each prepared to pay an inflated 1 000 Kwacha (US$0.31) for a rich slice of Zambia's natural heritage. And under the strange blue neon lighting of the Kabwata bar, *chikanda* is at its most appealing – warm, satisfying and wholesome.

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'As far as Zambia and its neighbours are concerned, the orchid story is just about over,' says Michael Bingham, a Lusaka botanist and contributor to the Red Data List of Southern African Plants, who has been identifying Zambian orchid species. 'I'm terrified that the culture will spread to South Africa.' Orchid habitats in South Africa are smaller – and more vulnerable to being wiped out should opportunists want to export tubers to Zambia, or start the *chikanda* craze in their own country. Bingham's fears may be justified, given what is happening to the north of Zambia, in neighbouring Tanzania. Zambians have depleted their orchids to the extent that Tanzania now supplies much of the demand. 'Millions of orchids are being virtually strip-mined from Tanzania's Southern Highlands,' says Tim Davenport, director of the Southern Rift and Southern Highlands Conservation Programmes for the US-based Wildlife Conservation Society. 'Many species will be wiped out in just a few years.' He estimates up to 85 species are being harvested, with 90 per cent of them destined for Zambian cities.

Orchids are the most dramatic flowers on earth. From one basic pattern, evolution has sculpted thousands of shapes of every conceivable colour. Of the 60 000 living species that will become extinct in the lifetime of a child today, it is thought that one in 10 will be an orchid. They are protected under CITES, which requires the certification ▶

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A TASTE FOR TUBERS

Orchid tubers are fairly nutritious, say researchers, and a useful addition to the diet. Apart from starch, they contain minerals, including calcium and iron, micronutrients, and protein from the added peanuts. Then there is the unquantifiable psychological benefit from sinking your teeth into a warm, savoury, thick mass of food. Zambians are not the only ones to derive such satisfaction. Powdered orchid tubers were popular in 16th-century England where they were the chief ingredient in salep, a rival to tea. The taste came from the Far East, spreading into Mediterranean countries, then into Europe and the New World. *Salep* was thought to be highly nutritious – it was said that one ounce (2.54 milligrams) dissolved in a quart (2.2 litres) of boiling water could sustain a workman for a day.

of plants crossing international borders. But such niceties are irrelevant at the Tanzania–Zambia border. Inside Zambia orchids have no protection and in Lusaka, a 15-hour drive from Tanzania, consumers are even ignorant of the imminent crash in supply.

Chikanda-laden lorries arrive in Lusaka from the north, taking a day or two, depending on the quality of the roads.

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They amble into the vast and earthy Soweto market. Scrawny porters cart the tubers in ancient wheelbarrows to *chikanda* corner, where market women make about US$1.75 for a four-kilogram bag that will produce a cake the size of a large biscuit tin. To reach *chikanda* corner, you follow a path through sweaty chicken alley and alongside the enticing stalls of the traditional healers. It skirts low pans of frying sausages, pots of bubbling maize porridge, barrows heaped with jewel-like beans, cow heads waiting impassively on the ground. After the cow heads is a shelter made of sticks and plastic bags, and beneath this lies a tumble of orchid tubers. Devoid of their flowers, which have long since withered in the fields, they look hardly more exciting than new potatoes – it is the noise of the shoppers kneeling and fussing around them that betrays their importance.

Esther Makola is there. She cooks *chikanda* cakes to order, at a profit of US$5.26 each. She squats and cracks tubers open to check that the flesh is crystalline and dry. Varieties from Iringa, in Tanzania, are the best, she says. Esther, full of the lore of *chikanda* preparation, may seem to have learned it at her grandmother's knee. But in fact she began her trade only seven years ago when, for unexplained reasons, the taste for *chikanda* engulfed Zambia. The craze seems partly driven by a new pride in things Zambian, a wider trend bound up with rejection of the West. But economics is also a major factor. *Chikanda* is cheap – much cheaper than meat – and Zambians are poor. It is a sharp poverty whose visible cusps in the city are street kids, prostitution, Aids. In the countryside there is perpetual, low-level hunger. It developed when the government abolished subsidies and smallholders could no longer afford to grow their staple, maize. Instead they returned to the bush in search of wild foods – caterpillars, mushrooms, orchids.

'The best *chikanda* pickers could make as much money in three weeks as the average maize grower would all year,' says Guni Mickels Kokwe of the Zambia Alliance for People and Environment (ZAPE). Such profits have receded now but *chikanda* is still an important source of income. 'That's why people are so crazy about it. There's money in it.'

There's about US$0.80 in a cake's-worth of tubers for the women and girls who harvest them in the shallow, flooded dambos (depressions or valleys that seasonally fill with water) of the north. Walk through the low forests of Serenje, in Central Province, until the woodland finishes abruptly, and there below is Buitetere Dambo, hushed and empty. It is the end of the rainy season and women from nearby Kavanga village have heard that there is a trader up from the Copper Belt, so they have come harvesting.

This is common land. Anyone can graze their livestock here; hunt mice, trap fish, make small maize gardens on its numerous hillocks – and pick its orchids. The women spread out and are soon part of the dambo, calling to each other, singing. They bend low as they search. The flowers finished a couple of months ago, leaving shrivelled brown approximations to themselves cowering among the grasses. The women are looking for the green leaves and shoots that grow at a distance from the flowers, marking the tuber below.

Each discovery of a tiny plant amongst the profusion of vegetation seems a small miracle. Then a couple of hacks with ▶

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a hoe and the plant lies uprooted and useless in the grass; the tubers, which would have fuelled the next generation of flowers, have fallen with neat thuds into the collecting tin; the harvester has moved on. It now takes a week to collect what used to take a couple of hours, says Doris Malovo, wrapped in bright cloth. 'In the old days, there were plenty of orchids here.' She waves her arm. 'But now they are scarce. There is nothing we can do about it,' she adds, picking up her bowl which contains, after an hour, just seven tubers. 'If we stop picking, others come and dig.' Everyone laments the disappearance of the profits that trickle in for six months of the year, funding the purchase of soap, salt, clothes. But no one has a solution.

Today the women have saved some tubers for themselves. Back in the hamlet the *chikanda* are washed, sliced and spread out to dry in the sun. Then nine-year-old Vivien, thin and strong, tips them into a deep wooden pot, and raises a long pestle high above her head. She brings it down forcefully, beginning the long pulverisation by which *Satyrium*, *Disa* and *Habenaria* species are smashed back into the sugar crystals from which nature laboriously built them. The women sit on the brushed red earth in the sun, legs outstretched and happy, children clambering over them. They take turns until the pounding and sieving have yielded a pile of something akin to demerara sugar; then they smash up a similar quantity of peanuts. Preparing the dish is a long and sociable process, imbued with custom and rife with the potential for mistakes. It takes a clutch of wives and their tales to achieve a plump and solid cake. To attribute the *chikanda* craze to poverty alone is to miss much of the pleasure it brings.

Among the quiet, grass-roofed huts of the hamlet is a cooking hut, where a wood fire spews eye-stinging smoke into the face of old Margaret who heats a cauldron of water. She stirs constantly, as women murmur advice through the gap under the eaves. Intermittently, she flings handfuls of orchid powder into the cauldron, or sprinklings of pounded peanuts, big pinches of salt and blood-red chilli. The process seems vague but the proportions are critical, judged by feel. Margaret stirs non-stop for 90 minutes and the mixture is oaty and thick. But there is one more ingredient: soda, brewed up from the boiled ash of past fires. Adding the soda is perhaps the most esoteric moment. 'When it is ready for the soda, the *chikanda* will tell you,' Esther, cooking in Lusaka, had told

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me. The *chikanda* speaks and Margaret empties dishfuls of watery grey ash into the cauldron. For an eternity she ploughs her long wooden stick through the thick mass before judging it to be set, heaving the cauldron out of the hut and proudly upending the wobbly mass into a bowl. It sits there, pale, smooth and steaming, watched by the thin women and their thinner children – none of whom can resist shaving slices from the cake.

If the orchids that pepper their wetlands could be managed sustainably – or even cultivated – they would provide both nutrition and a long-term income for Margaret and her fellow villagers. Additionally, a strand of Zambia's heritage would be preserved. The environmental and aesthetic concerns of international experts would be satisfied as well.

Davenport wants to save irreplaceable species, but he also thinks that preserving orchids could bring economic benefits. 'We are not talking about just one species, we are talking about dozens,' he says. 'Some are found nowhere else on earth. In the US alone, the orchid flower market is worth billions of dollars each year. It is not impossible to imagine a situation in which considerable money could be made from that market if it were managed sustainably.'

Far away to the west, the only project in Zambia dedicated to finding a solution to the problem is struggling. Jackson Chisanga is a local farmer whose passion to save the orchid seems to arise partly from heritage concerns, partly from his stomach. He lives near the Congolese border in a tangle of forest and dambo barely tame enough to produce the cassava, maize and honey that are his livelihood. In the green and golden afternoon heat, his tall, bearded form strides down to a small dambo where, amidst a confusion of weeds, he proudly points out his humble orchids. Chisanga claims he has overcome the key obstacle to cultivating orchids – the fact that, unlike potatoes, the tubers of most species produce just a single 'eye' and so a tuber can only ever produce one tuber with nothing left over for harvesting. But he is secretive about the details of his cultivation method. He speculates wildly: 'If we could cultivate, we could even export tinned *chikanda* to the rest of the world.' Yet his research project, part of a scheme known as the Provincial Forest Action Programme, sponsored by the Finnish government, is evidently failing. No one is digging the heavy earth into ridges for planting, or delivering water up to the drier test areas, despite the minimal cost of manual ▶

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labour. No one is blameless for this failure, it seems – people have argued that the farmer has not managed his funding properly, managers have failed to visit his remote homestead. But the ultimate reason must be that the plight of the orchid competes for attention with other, massive problems. Zambia's leaders are more concerned with fighting corruption or strengthening production of the staple, maize. 'There is no research budget anywhere in any government institution or university,' says Kokwe. 'Donors are highly fashion-bound, and money goes to specific subjects – women, water and HIV/Aids. It is difficult to argue that *chikanda* tubers are more important than Aids orphans.' And that is why Zambian academics don't even know which orchid species are most under threat – no-one, says Bingham, has mapped the 80 local names, which describe the tubers, on to the 30 or so botanical names, which derive from the flowers. Even if there were money, argues Kokwe, you would need to consider the whole problem of the disappearing wetlands of southern Africa and find a solution that satisfies those tired but vital axioms of 'sustainable use' and 'empowerment of communities'. Zambia's forestry department, NGOs and donors are working on this, but Kokwe has set the issues in a vast, continent-wide context. Orchids suddenly seem as lost within it as they are within the dambos where they grow.

There is some hope. In Tanzania, the government has created a national park on the Kitulo Plateau in the Southern Highlands. This has helped to protect its orchids, though elsewhere *chikanda* collection continues. Tanzanian and Zambian academics are discussing a regional approach to the problem. In Zambia itself, Kokwe is looking for funding for orchid projects. A student at the University of Zambia has devised improved storage methods so that fewer tubers go to waste after being picked.

Whether any of these approaches will save the orchid is hard to tell. Perhaps the answer lies back in the hamlets and the dambos, with the harvesters, who seem imbued with a subtle philosophy of nature that could be taken for fatalism. Faidon Minga, an agricultural officer in Serenje district, best articulated it. I walked with him through wetlands, where orchid plants lay dead and uprooted, shrivelling in the sun. I began to realise that orchids, like mushrooms, caterpillars and everything else that grows on the common lands, are there for the taking. Their abundance, or otherwise, is decided by nature; their fate is out of the hands of the people who harvest them. What will happen to your people when orchids disappear?' I asked. 'Can they do nothing to save them?' He shrugged, smiled and shook his head. 'No,' he replied. 'You see, they believe that orchids are just a natural thing. They were planted by God.' ■