

THE  
CABARET  
OF  
PLANTS

BOTANY AND THE IMAGINATION

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# Introduction: The Vegetable Plot

JUST BEFORE HE DIED in 1888 Edward Lear sketched the last of the surreal additions to evolution's menagerie that he'd begun with the Bong-tree in 'The Owl and the Pussycat' nearly twenty years before. His *Nonsense Botany* is a series of impish cartoons of preposterous floral inventions. It includes a strawberry bush bearing puddings instead of fruit, the parrot-flowered *Cockatooca superba* and the unforgettable *Manypeepia upsidownia*, a kind of Solomon's seal with minute humans suspended like flowers along the bowed stalk. Lear was a lifelong sufferer from epilepsy and depressive episodes (which he nicknamed 'the Morbids' as if they were a tribe of gloomy rodents) and the obsessive fun he had with words and forms may have been a way of exorcising his melancholy. But I suspect there is more to his final creation. Lear was an astute botanist as well as a brilliant humorist. He'd travelled and painted across the Old World, especially in the Mediterranean, and had seen first hand many of its bizarre plants, including the carrion-stinking dragon arum (which he described as 'brutal-filthy yet picturesque'), and I think his nonsense flora can be seen as a kind of celebratory cabaret, an affectionate satire on the astonishing revelations of nineteenth-century botany.

Thirty years previously Europeans had their first news of the Welwitschia, a Namibian desert plant whose single pair of leaves can live for 2,000 years, grow to immense size but remain in the permanently infantilised state of a seedling. Ten years later Charles Darwin had revealed the barely credible devices orchids used to conscript

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insect pollinators, including the launching of pollen-laden missiles. In a world of such remarkable organisms why shouldn't there be a fly orchid dangling real flies like Lear's *Bluebottlia buzztilentia*? As for his *Sophtsluggia glutinosa*, it could well be the filthy dragon arum reimagined as one of the plant–animal cooperatives being unmasked by explorers in the tropics. Lear's bionic vegetables were botany's *reductio ad absurdum*, the last tarantellas of a century in which plants had been just about the most interesting things on the planet. It wasn't a fascination confined to the scientific elite. The general public had been agog, astounded by one botanical revelation after another. In America the discovery of the ancient sequoias of California in the 1850s drew tens of thousands of pilgrims, who saw in these giant veterans proof of their country's manifest destiny as an unsullied Eden. (There were throngs of rubberneckers and partygoers too: nineteenth-century botany was far from sober-sided.) Similar numbers flocked to Kew Gardens in west London, where one of the star attractions was an Amazonian water lily whose leaves were so brilliantly engineered that their design became the model for the greatest glass building of the nineteenth century. What these moments of excited attention shared was not so much a simple pleasure in floral beauty or the promise of new sources of imperial revenue (though these were there too) but a sense of real wonder that units of non-conscious green tissue could have such strange existences and unquantifiable powers. Plants, defined by their immobility, had evolved extraordinary life-ways by way of compensation: the power to regenerate after most of their body had been eaten; the ability to have sex by proxy; the possession of more than twenty senses whose delicacy far exceeded any of our own. They made you *think*.

Yet if respect for them as complex and adventurous organisms reached its zenith in the late nineteenth century, it neither began nor ended there. People had been enthralled by and sometimes fearful of the vegetable world's alternative solutions to living for thousands of years. They contrived myths to explain why trees could outlive civilisations; invented hybrid creatures – chimera – as models for plants they were unable to understand, and which seemed to intuit symbioses discovered centuries later. Ironically, the same scientific revolution that engaged

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the public imagination eventually alienated it. Alongside Darwin's work, Gregor Mendel's discoveries of the mechanisms of genetic inheritance in the late 1860s drove botany deeper in to the laboratory. The workings of plants became too difficult, too intricate for popular understanding. Amateur botanists turned instead to recording the distribution of wild species. The rest of us mostly sublimated our interest in the existence of plants into pleasure at their outward appearance, and the garden has become the principal theatre of vegetal appreciation. Plants in the twenty-first century have been largely reduced to the status of utilitarian and decorative objects. They don't provoke the curiosity shown to, say, dolphins or birds of prey or tigers – the charismatic celebrities of television shows and conservation campaigns. We tend not to ask questions about how they behave, cope with life's challenges, communicate both with each other and, metaphorically, with us. They have come to be seen as the furniture of the planet, necessary, useful, attractive, but 'just there', passively vegetating. They are certainly not regarded as 'beings' in the sense that animals are.

This book is a challenge to that view. It's a story about plants as authors of their own lives and an argument that ignoring their vitality impoverishes our imaginations and our well-being. It begins with the very first representations of plants in cave art 35,000 years ago, and the revelation that Palaeolithic artists were more intrigued by plants as forms than food. And it ends in a kind of modern cave: the hollow shell of a famous fallen beech, and what this apparently dead relic says about the ability of plants, working as a community, to survive catastrophe. In between, I discuss how medieval clerics and indigenous shamans laid down formal explanations of why one wilding could evolve into a food crop and another into a poison; the debate between Romantic poets and Enlightenment scientists about the kind of vital forces that might lie behind vegetal powers, and whether they echoed the creativity of humans; and today, how the puzzles that so excited the nineteenth century – do plants have intentions? inventiveness? individuality? – are being explored by a new breed of unconventional and multidisciplinary thinkers.

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It's odd that we haven't regained our ancient sense of wonder, especially now we understand how crucial the plant world is to our own survival. Perhaps that is partly the answer: we find it hard to accept that plants don't need us in the way we need them. The UN has described the 300,000-plus species which make up the earth's flora as 'the economy's primary producer ... photosynthetic cells capture a proportion of the sun's radiant energy and from that silent diurnal act comes everything we have: air to breathe, water to drink, food to eat, fibres to wear, medicines to take, timber for shelter'. They are now a front-line crisis service too. Trees combat climate change, soak up floods, purify city air. Wild flowers help insects survive so they can pollinate human crops. The structures of plant tissues are providing models for a new generation of engineered, non-polluting materials. You would think that this increasing understanding of the centrality of plants' role on earth might encourage a new respect for them as autonomous organisms. But the opposite is happening. Influential conservationists such as Tony Juniper have openly abandoned the idea of arguing for plants' 'intrinsic value' in favour of stressing their economic potential, and have enthusiastically embraced the jargon of the marketplace. Wordsworth's 'host of golden daffodils' has been rebranded as 'natural capital' and the Wildwood as a provider of 'ecosystem services'. 'Nature', once seen as some kind of alternative or counter to the ugliness of corporate existence, is now being sucked into it. I've no doubt that the pragmatic realpolitik and self-interest of this approach are powerful motivators for conservation. But I think of George Orwell's words: 'if thought corrupts language, language can also corrupt thought'. And worry about the subliminal effects of defining plants as a biological proletariat, working solely for the benefit of our species, without granting them any a priori importance. One doesn't have to believe that plants have rights to see that this is a precarious status, subject to the swings of human taste and attitude. In the absence of respect and real curiosity, attentiveness falters. Complex systems become reduced to green blurs, with dangerous consequences both for us and for individual species. An example of well-meaning but myopic human-centred thinking is the encouragement being given to the growing of nectar-rich flowers for pollinators, bees especially. This



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is a commendable policy – except that the majority of pollinating insects, unlike bees, grow from larvae that feed not on nectarous flowers but dull green leaves, some of them the weeds that are hoicked out to make way for the dazzling floral border.

I suspect that the chief problem we have in considering plants as autonomous beings – and let me risk embarrassment by using the word *selves* here, meaning authors of their own life stories – is that they seem to have no animating spirit. I was lucky in that I had an early and revelatory glimpse of their vitality. I tell the full story later of how one species, marsh samphire, took me through this transformative experience, but its outlines are relevant here. I first came across the plant as a commodity, a foodstuff, a very desirable wild delicacy (I still rate it foraging's gold star species), and then discovered that it had an enthralling existence beyond my use for it – a love for bare, viscous mudflats which was seemingly contradicted by an inherent drive to turn them into dry land.

Most of my personal encounters with plants – some of which are described in the pages that follow – have confirmed this conviction that plants have agendas of their own. On every occasion I have owned, or had control of, or planned purposes for vegetation, what has enthralled me has been the way the plants go off on courses entirely of their own. During the years I owned the deeds of an ancient wood in the Chilterns (I can't say I truly owned the living place itself) our feeble attempts at tree planting were swamped by the wood's decision to grow quite different species. Supposedly shy and finicky plants – rare ferns, native daphnes, the only colony of wood vetch in the county of Hertfordshire – ramped along tracks we'd gouged out with a bulldozer. Violet orchids grew in thickets where it was too dark to read – then vanished when the light broke in.

Everywhere I have travelled plants have surprised me by their dogged loyalty to place, even to the point of defining the *genius loci*, and then by their capricious abandonment of home comforts to become vagrants, opportunists, libertines. I've seen ancient goblin trees develop wandering branches as promiscuous as bindweed shoots, which might equally well lope off into the countryside or jam themselves into a city

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wall. I've marvelled at tropical orchids living off air and mist. Plants, looked at like this, raise big questions about life's constraints and opportunities – the boundaries of the individual, the nature of ageing, the significance of scale, the purpose of beauty – that seem to illuminate the processes and paradoxes of our own lives.

And this, of course, is where the problems arise. Is it possible to think and talk sympathetically about a kingdom so different from our own without in some way appropriating and traducing it? Do we inevitably impose linguistic bondage whenever we try to celebrate vegetal freedom? Is this book's project a contradiction in terms? Our traditional cultural approach has been dominated by analogy. For at least 2,000 years we've tried to make sense of the barely animate world of plants by comparing its citizens to models of liveliness we understand – muscles, imps, electric machines and imperfect versions of ourselves. Daffodils become dancers and ancient trees old men. The folding or falling of leaves is a kind of sleep, or death. We're Shakespeare's forked radishes attempting to solve the monkey puzzle.

Metaphor and analogy are regarded as inappropriate, even disreputable, in scientific quarters. They're liable to divert attention away from the real-life processes of plants, and to end in the ultimate heresy of the pathetic fallacy, of seeing plants as the carriers or mirrors of our emotions. But I can't see how we can hope to find a place for ourselves in earth's web of life without using the allusive power of our own language to explore plants' dialects of form and pattern, and their endless chatter of scents and signals and electrochemical semaphore. In return the plant world has repaid us with a rich source of linguistic imagery. Root, branch, flowering, fruiting – we can think more clearly about our own lives because we have taken plants into the architecture of our imaginations. The trouble has been not so much with metaphor itself, as with a kind of literalism, where what is intended to be simply an insightful allusion becomes a humanoid tree or a pansy (from French *pensées*, thoughts) endowed with tender feelings. (An extreme example of this was the fashionable Victorian fad for 'the Language of Flowers', which ascribed plant species with a code of arbitrary 'meanings' which had no connection whatever with the lives of the organisms themselves.)

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The great Romantic lover of plants, Samuel Coleridge, understood these tricky borderlines. ‘Everything has a life of its own,’ he wrote, ‘and ... we are all *one life*.’ He was talking about the existence of the individual inside the community of nature, but he might also have been pondering how we set our measure of the world alongside, so to speak, the plant world’s measure of itself.



The diverse chapters that follow chiefly involve encounters between particular plants and particular people, and underline the point that respect for plants as autonomous beings doesn’t preclude our having a relationship with them. Indeed, one alternative to viewing ourselves as natural capitalists would be to begin thinking as natural cooperators. Or as the participating audience in an immense vegetable theatre in the round. In 1640 John Parkinson, apothecary to King James I, wrote a book entitled *Theatrum Botanicum. The Theatre of Plantes*, though its subtitle – *An Universall and Compleat Herball* – gives away the staid procession of second-hand plant remedies that follows. I wanted a frame which suggested the possibilities of a more intimate, interactive relationship between our two spheres of existence; a sense of the vegetal world as protean, dissident and Learish, full of mimicry and unexpected punchlines, and a long way from abiding by anyone’s stage directions. A cabaret sounded like the right kind of show.

Some of the chapters (or acts, maybe) are portraits of individual organisms – the Fortingall yew, for example, probably the oldest tree in Europe and a hapless arboreal celebrity; Newton’s apple tree, whose genetic and ecological history lays waste to the gloom of Newton’s physics. Other chapters are meditations on whole groups of plants – oaks, orchids, carnivorous species – whose rich cultural histories braid with their own ecological narratives. There are chapters on writers and artists – Wordsworth on daffodils, Renoir on olives, photographer Tony Evans on primulas – whose vision changed our understanding of the vitality of plants and how we might relate to it. There are accounts of some personal explorations of the Burren in Ireland and the gorges of

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Crete, and what their flora says about the dynamics of vegetation, in the past and in the future. And there are introductory sections on ideas, for instance Romanticism, the role of glass in plant theatre, and the vexing question of plant intelligence.

This all sounds very serious. Plants are also fun and feisty, and I hope this book celebrates that, as well as their gift to us of different models of being alive.