

CHARLES ELLIOTT

ELEGANT TAXONOMY

THE NAMING OF NAMES

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By Anna Pavord
(Bloomsbury 471pp £30)

AROUND TWO THOUSAND years ago, a Greek doctor named Dioscorides described a plant that he considered to be medically useful. It was called 'crocodilium', he said, and it was supposed to help people who were splenic. When boiled and drunk, it 'causes copious bleeding at the nose'. Other characteristics, apart from the shape of its roots and seeds, and the fact that it grew in 'wooded places', were unfortunately obscure.

What exactly *was* crocodilium? And why should anyone care? As Anna Pavord splendidly makes plain in this elegant and scholarly history of taxonomy, a science usually regarded as even dimmer than economics, such questions are far from insignificant. Exactly which plant is which, and what its relationship is to other plants, are matters central to our understanding of the world we live in. Crocodilium is a case in point, though on the whole a depressing one. The confusion surrounding it, as with so many of the plants mentioned by Dioscorides, lasted for hundreds and hundreds of years. Even when the sixteenth-century Italian botanist Luca Ghini finally managed to pin it down as being most likely a species of *Eryngium* (at the same time apologising for not drinking an infusion to see whether it really did make his nose bleed), he was taking only a modest step out of the chaos.

In Pavord's firmly expressed view, the problem started with the ancient assumption that plants should be viewed primarily in terms of their usefulness. In practice, this meant their use in medicine. Right up until – and during – the Renaissance, botanical studies concentrated on pharmacology, ignoring what she calls 'the big picture, the altruistic, intellectual search for the key to the order of the universe'. What was seen to be interesting about clove pinks was their efficacy against the plague, not their flowers or the genus they belonged to.

Yet from the very beginning, in the work of the often overlooked third-century-BC Greek philosopher and proto-botanist Theophrastus, another approach could be discerned. Theophrastus is one of Pavord's heroes, and

rightly so. The first man to write a book about plants, his 'complex, quizzical take' led him beyond mere recording to think about plant relationships, about names, about the actual shape of the natural world and the way living things fit into it. Unfortunately, his works were lost in the West; they survived only among Arab scholars in the East. Dioscorides, the medicine man (and far less important figure), held sway in Europe, repeatedly translated, the one and greatest authority right up until the seventeenth century.

So most writing on plants took the form of herbals, simple lists of plants together with their therapeutic qualities. Despite advances in technology during the Renaissance – in engraving, printing, papermaking – which brought huge improvements in the way plants could be described, the old-fashioned herbal continued supreme. Pavord is wonderful on this phenomenon, and *The Naming of Names* is beautifully illustrated.

Gradually, however, the constant recourse to classical authority became harder and harder to justify. Northern Europe had plants that the ancient Greeks could not have known (and vice versa); still more new species were flooding in from the Near East and the Americas. Instead of simply copying precedent, men like Otto Brunfels, Leonhart Fuchs, Ghini, and Andrea Cesalpino were inspired to make their own observations and develop their own techniques, such as herbaria of dried specimens. They also began to think about how plants might be related to each other. 'All science', wrote Cesalpino, 'consists in the gathering together of things that are alike.' In support of this thesis, he set out 1,500 plants in his own 1583 book *De Plantis* in thirty-two different groups ranging from *Umbelliferae* to *Compositae*.

Cesalpino used similarities between fruits and seeds to classify his plants; Lobelius attempted to do the same using leaf shape in his 'nieuwe ordeninghe' of 1581. Neither worked very well. (Lobelius concluded that there was no way to distinguish apples from pears.) The Englishman John Ray, following the fundamental division into trees, shrubs, sub-shrubs and herbs first employed by Theophrastus, developed yet another, more sophisticated classification scheme and got a little further. Yet there were always ambiguities or plants that didn't fit. Even today, it seems, serious classification problems remain.

Pavord writes delightfully about all this. Fine anecdotes and memorable pocket biographies tumble through what in lesser hands could be very dry text. Especially affecting is her account of the sad life of another of her particular



Flos Africanus

heroes, the thoroughly forgotten churchman botanist William Turner. Turner, who seems to have been a sort of reverse Vicar of Bray, had the misfortune to be a committed Lutheran during the English Reformation. He was as bitterly opposed to the corruption of the Church of England under Henry VIII as he was to Catholicism under Queen Mary, and consequently spent a good bit of his life under both regimes in exile. When he was not abroad, he devoted himself to writing tracts, to securing a place (he was eventually appointed Dean of Wells, but couldn't get his predecessor to vacate the position), and, above all, to collecting and studying plants. He had a hard time of it; at one point he pleads that his 'chylde' had been 'fed so long with hope that they ar very leane'. But he still succeeded in producing what Pavord calls 'the first decent plant book' in English, the *New Herball* (1551–68). This might have been a triumph, except for the fact that the first part was banned because of his over-energetic Protestantism, while the second part was published in Germany where nobody could read English.

While Turner's problem may have been unique, it is certainly true to say (as Pavord's title does) that language has played an extraordinary part in the history of taxonomy. Giving distinctive labels to plants has never been a straightforward matter, because classification and naming have to go together. Without a system incorporating relationships – families, genera, species – even binomial names of the kind established by Linnaeus may be of little use, since they would float in a void. There have been many times in the past when the whole naming process seemed likely to crash. Common names could vary from place to place. Or a plant might be lumbered with half a dozen Latin terms to identify it (in a 1581 picture book, for example, a small daffodil is nailed down – indeed, squashed – under the title *Narcissus montanus iuncifolius minimus alter flore luteo* – that is, 'small rush-leaved daffodil with a yellow flower that grows in the mountains'). And simpler names could be dangerous or confusing. As Thomas Johnson (c1600–1644), another of Pavord's heroes for his ground-breaking exploration of native British flora, pointed out, herb-women in London often sold the easy-to-find hemlock water dropwort in place of water lovage, just by changing the name. Water dropwort is poisonous.

If I have any complaint to make about *The Naming of Names*, it is to wish that it were longer. I would have liked to hear more about the struggles of scientists since the eighteenth century to refine the taxonomic structure, which are apparently still going on. What changes lie in store? Will chrysanthemums be relegated to outer darkness again on the strength of their DNA? What about geraniums? In any event, with the case Pavord makes for Theophrastus, I trust the namers will now memorialise him, with a genus of his own at the very least.

To order this book at £24, see order form on page 78

JANE GARDAM

LOST ARCADIA

THIS OTHER EDEN: SEVEN GREAT GARDENS
AND THREE HUNDRED YEARS OF
ENGLISH HISTORY

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By Andrea Wulf and Emma Gieben-Gamal
(Little, Brown 414pp £20)

THE RIVERSIDE GARDENS OF THOMAS
MORE'S LONDON

★

By C Paul Christianson
(Yale University Press 232pp £25)

HERE ARE TWO delectable, serious and beautifully illustrated books describing between them the history of fourteen English gardens over nearly four hundred years. In *This Other Eden* all seven gardens are still alive and well, some better than they have ever been and still changing along with their times and owners. In *The Riverside Gardens of Thomas More's London* every garden except for Hampton Court is gone. They are ghost-gardens along the river's banks from the Southwark gardens of Winchester Palace – owned by the richest bishop in the land and destroyed by fire in 1814 – to More's beloved sixteenth-century gardens which he created when he moved to rural Chelsea.

Both books are about the interrelation of garden history and national politics; how the fall of great gardens mirrors the fall of princes. The first chapter of *This Other Eden* is an account of the making of Hatfield House and the years spent creating its gardens with almost insane passion. Their creator, Sir Robert Cecil, did not live to see them finished; he died on the way home from the torture of taking the waters at Bath. The last chapter of the book is about Edwardian Hestercombe and the Great Plat – thumbnail sketches of Miss Jekyll and tiny Edwin Lutyens perched intensely on a high stool. Hestercombe, like Hatfield, was planned during a period of political ferment. In the early 1900s the government fell and the middle classes had begun to strangle the aristocracy. Gentle Hestercombe became the quintessential English garden marking an era's end. In between the two we have Hampton Court, Stowe, Hawkstone, Sheringham Park and wonderful Chatsworth, which has ridden out the years almost untroubled.

The Riverside Gardens is by an American professor, meticulous and detailed but packed with fascinations. There are dozens of drawings and plates and notes about the whole paraphernalia of gardening; lists of the names and duties of centuries-dead gardeners (twopence a week for a woman weeder) and sketches of artefacts that look sometimes as ancient as the Pyramids and sometimes