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Slightly Foxed



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Dr Catherine Merrick on
Biophilia by E. O. Wilson

A Scientist for All Seasons

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Edward O. Wilson, naturalist, theorist and Harvard Professor of Entomology, will be 85 this year: he is showing little sign of slowing down. In an eminent and eclectic career spanning six decades he has become one of the most eloquent public figures in modern science, produced an impressive collection of books, both scholarly and general, and won two Pulitzer Prizes for non-fiction. Most recently, aged 80, he produced his first novel. 'He is', says Richard Dawkins, 'hugely learned, not just in his field of social insects, but in anthropology and other subjects as well. He is an outstanding synthesizer, his knowledge is immense and he manages to bring it all together in a coherent way.'

This talent for synthesis is fully displayed in Wilson's most enduring and influential theory, which first appeared in 1984 with his book *Biophilia*. Wilson coined the term 'biophilia' to describe what he believes is an innate human affinity with other forms of life. It is innate because our culture and behaviour are partially encoded in our genes, and it has been sustained throughout evolution because human life and death have always depended primarily upon our fellow creatures.

Put simply, we are hard-wired to be interested in living things. *Biophilia* provides some fascinating evidence for this idea, along with the author's engaging and erudite reflections on what such a human instinct might mean for life on earth. To Wilson, it means that we are

E. O. Wilson, *Biophilia* (1984)

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naturalists by nature: an instinct that can and should be exploited to promote conservation.

Indeed, Professor Wilson is himself a passionate conservation advocate. In the past thirty years, he has followed his seminal book with *The Diversity of Life* (1992), *The Biophilia Hypothesis* (1993), *The Future of Life* (2003) and, most recently, *The Creation: An Appeal to Save Life on Earth* (2006). The growing grandeur of these titles reflects not only their author's increasing stature but also his growing sense of urgency. When I heard him give the Prather Lectures at Harvard in 2010, he was very much in environmental advocacy mode, energetically pacing the podium although his tall frame is now stooped and his deep Southern drawl quavers with age. Scientists are a contrarian lot, not much given to hero-worship, yet in a lecture hall packed with young biologists, the sense of being in the presence of greatness was palpable.

In fact, it is as a writer rather than a lecturer that E. O. Wilson has been most honoured, and justly so. 'The ideal scientist', he states in *Biophilia*, 'can be said to think like a poet, work like a clerk, and write like a journalist.' For Ian McEwan, who has cited Wilson as an intellectual hero, the professor certainly embodies his own ideal: 'I do not know of another working scientist whose prose is better than his. He can be witty, scathing and inspirational by turns.' Unlike McEwan, Wilson may not be a great writer of fiction (his recent novel, *Anthill*, received mixed reviews). He is, however, indubitably a great writer of science. *Biophilia*, which focuses entirely on his personal scientific passions, shows him at his authorial best: the book is poetic, discursive, highly readable and still relevant.

Wilson writes from the heart here: he is keenly aware of his own biophilia. He begins and ends with eloquent passages describing the forests of Surinam, where he experienced an epiphany as a young scientist doing fieldwork on ants:

At Bernhardsdorp I imagined the richness and order as an

intensity of light. The woman, child and peccary turned into incandescent points. Around them the village became a black disk, relatively devoid of life, its artefacts adding next to nothing. The woodland beyond was a luminous bank, sparked here and there by moving lights of birds, mammals and larger insects.

From this moment of inspiration, Wilson expands on his theory in a series of loosely linked essays discussing the evidence for human biophilia as a genetically encoded instinct. The idea that our behaviour is to some extent genetic was a natural, yet audacious, extension of his academic work on social insects, in which a set of inborn instincts can create a society whose sophistication far exceeds the processing power of a single ant or bee. Could the same be true of humans, wondered Wilson? Do we, unlike ants, learn our culture *de novo* from birth, or are we also to some extent born with it?

This idea, which eventually gave rise to the whole modern discipline of evolutionary psychology, got Wilson into very hot water when he first published it in *Sociobiology: The New Synthesis* in 1975. Nature versus nurture may be an old debate now, but it was political dynamite in the 1970s. Anthropologists and sociologists saw Wilson's book as a dangerous attack on the uniqueness of human nature; he was accused of genetic determinism, racism, misogyny. An anti-racism activist famously emptied a jug of water over him at a scientific conference. 'I believe', he said later, with pride, 'that I was the only scientist in modern times to be physically attacked for an idea.'

Undeterred by such controversy, Wilson went on to produce *Biophilia*, making a persuasive case for the role of 'nature' when it comes to our engagement with the living world. Humans, for example, tend to be both fascinated by and afraid of snakes, as indeed do apes and monkeys, even those born in laboratories. (Madagascar lemurs, notably, do not: there are no deadly snakes on the island.)

Thus, snakes engender one of our commonest phobias. Why? Because the man most intensely attuned to the sight of a snake was once the man most likely to survive.

How could it be otherwise? The brain evolved into its present form over a period of about two million years, from the time of *Homo habilis* to the late stone age of *Homo sapiens*, during which people existed in hunter-gatherer bands in intimate contact with the natural environment. Snakes mattered. The smell of water, the hum of a bee, the directional bend of a plant stalk mattered . . . And a sweet sense of horror, the shivery fascination with monsters and creeping forms that so delights us in the sterile hearts of the cities, could see you through to the next morning . . . Although the evidence is far from all in, the brain appears to have kept its old capacities, its channelled quickness. We stay alert and alive in the vanished forests of the world.

Indeed, continues Wilson, it's not only the life that could kill us that retains a genetic footprint in our brains, it is the life that could sustain us too. He suggests that we instinctively attempt to recreate the vanished forests – or, more accurately, the vanished savannah habitats – of early man in our cities. The landscapes that please us tend to feature open grassland, clumps of sheltering trees and running water: city parks from New York to Kyoto look this way. Modern man no longer actually needs these things, but his instincts do not yet know it.

None of this, in Wilson's opinion, diminishes our human nature. His theory is presented as a unifying and inclusive one: biophilia is manifest everywhere from the study of biology to the use of living symbols in art, mythology and faith. Science and art are not opposing forces, but complementary expressions of a central human instinct. Does a scientist's desire to understand a bird of paradise reduce the emotional impact of its beauty? Quite the opposite, says Wilson: the better our understanding, the deeper our aesthetic appre-

ciation of the bird. By the same token, the better we understand our own brains, the more richly we can live within them.

Biophilia is a short book remarkably long on ideas. I would argue that the case it makes for our 'genetic nature' should, if anything, be broader: instincts for non-living forces like astronomy and meteorology should exist alongside our biophilia if human survival once depended on weather or on tides. Indeed, perhaps they *do* exist. Nevertheless, our instinct for the earthly probably outweighs any instinct for the heavenly. In fact, the book takes an unusually sci-fi leap in suggesting that our biophilia may eventually prevent us from colonizing distant planets: their sterile environments would drive us mad. Returning to the here and now, it concludes with a heartfelt chapter advocating the conservation of our own planet: not for future generations or for the sake of idealism, but for our own instinctive satisfaction. It is here that Wilson the pragmatist meets Wilson the idealist, for he is, like most great scientists, both at once. 'What do we really owe our remote descendants? At the risk of offending some readers I will suggest: Nothing. Obligations simply lose their meaning across centuries. But what do we owe ourselves in planning for them? Everything.'

E. O. Wilson is, in the words of his admirer Ian McEwan, 'fundamentally a rational optimist who shows us the beauty of the narrative of life on earth. He is living proof that materialism need not be a bleak world view.' Thus, in an age when environmentalism can seem very bleak indeed, *Biophilia* reads like a breath of fresh air. It is a book to raise your spirits about the nature of humanity, and to offer food for thought for years to come.

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In case you haven't yet come across it, *Slightly Foxed* is a rather unusual quarterly book review. For the past ten years it's been introducing its readers to some of the thousands of good books that long ago disappeared from the review pages and often from bookshop shelves. Companionable and unstuffy, it has a wide range of contributors – some well-known, some not – who all write personally and entertainingly about the books they choose. It's not so much a review magazine as a magazine of literary enthusiasms.

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