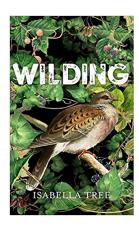
## WILDING – The Return of Nature to a British Farm Isabella Tree

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Isabella Tree & Charlie Burrell are the owners of Knepp Wildland Project.

In Wilding, Isabella Tree tells the story of the 'Knepp experiment', a pioneering rewilding project in West Sussex, using free-roaming grazing animals to create new habitats for wildlife. Part gripping memoir, part fascinating account of the ecology of our countryside, Wilding is, above all, an inspiring story of hope. Forced to accept that intensive farming on the heavy clay of their land at Knepp was economically unsustainable, Isabella Tree and her husband Charlie Burrell made a spectacular leap of faith: they decided to step back and let nature take over. Thanks to the introduction of free-roaming cattle, ponies, pigs and deer – proxies of the large animals that once roamed Britain – the 3,500 acre project has seen extraordinary increases in wildlife numbers and diversity in little over a decade. Extremely rare species, including turtle doves, nightingales, peregrine falcons, lesser spotted woodpeckers and purple emperor butterflies, are now breeding at Knepp, and populations of other species are rocketing. The Burrells' degraded agricultural land has become a functioning ecosystem again, heaving with life – all by itself. Personal and inspirational, Wilding is an astonishing account of the beauty and strength of nature, when it is given as much freedom as possible.



## This is an extract from Chapter 17: The Value of Nature

'On grounds of health alone, nature provide service we cannot afford to ignore. Evidence shows that people are healthier, physically fitter and better adjusted, and children's behaviour and schoolwork improve, if they have access to the countryside, parks or gardens. According to Public Health England, poor air quality in urban areas is said to be a factor in 29,000 premature deaths in the UK every year. A recent report in the Lancet associates the noise and air pollution of busy roads with Alzheimer's disease. Fresh air, long considered a tonic, is not just about avoiding pollution. Toxicologists are discovering that air provided by nature is loaded with microbes produced by plants, fungi and bacteria that are beneficial to health and boost the immune system. Even the remote sight of nature has curative effects. Health services have found that hospital patients need fewer painkillers after surgery and recover much faster if they have views of nature from their beds. In 2007 Natural England and the RSPB compiled studies from the UK, US and Europe in a report called 'Natural Thinking', highlighting the effects of nature on mental health. One in six of the UK population suffers from depression, anxiety, stress, phobias, suicidal impulses, obsessive compulsive disorders or panic attacks - sometimes in deadly combination. This costs the National Health Service £12.5 billion, the economy £23.1 billion in lost output and £41.8 billion in the human costs of reduced quality of life and loss of life. The studies show that symptoms of all these disorders are alleviated with time spent in nature. Measurements of blood pressure, pulse rates and cortisol levels of young adults demonstrate a decrease in anger and an increase in positive mood when walking in a nature reserve, while the reverse is true walking in an urban environment. Low levels of self-discipline, impulsive behaviour, aggression, hyperactivity and inattention in young people all improve through contact with nature. Studies on children who were being bullied, punished, relocated or suffering from family strife all showed that they benefitted from closeness to nature, both in levels of stress and self-worth.

It is perhaps unsurprising that so many of the naturalists and environmental journalists who walk through our door discovered nature either as unhappy or restless youngsters or in moments of crisis in later life. Many - like Matthew Oates, Ted Green, Dave Goulson, Peter Marren, Mike McCarthy, George Monbiot, Patrick Barkham, Chris Packham and Simon Barnes - have written movingly about nature's ability to restore a sense of connection and balance the mind, and for those of us access to this natural health service, self-prescription at moments of stress is instinctive. In late July 2010, barely a week before the end of my mother's life and finding the strain hard to bear, I left her bedside in Dorset for a day or two at home. In search of a distraction Charlie walked me to Spring Wood in the middle of the park, where an extraordinary spectacle had just materialized. Through shafts of light angled through the 140-year-old oaks dozens of silver-washed fritillary butterflies were looping through their courtship display....

Deep, rich orange and speckled with black, every again a flick of their wings flashed an underside of green and mother-of-pearl - the silver wash that gives the fritillaries their name. The female flies straight and level, the slow semaphore of her wing-beats and the scent from the tip of her abdomen exuding allure. The male swoops in tight loops under and up in front of her, stalling so she can pass beneath him through a shower of intoxicating scent-scales shed from his forewings. Nothing, I felt, could have encouraged me at that moment beyond shafts of sunlight spun with the dust of butterflies.

For Harvard biologist E. O. Wilson the human connection with nature - something he calls 'biophilia', the 'rich, natural pleasure that comes from being surrounded by living organisms' - is rooted in our evolution. We have been hunter-gathers for 99 per cent of our genetic history, totally and intimately involved with the natural world. For a million years our survival

depended on our ability to read the weather, the stars and the species around us, to navigate, empathize and cooperate with our environment. The need to relate to the landscape and to other forms of life - whether one considers this urge aesthetic, emotional, intellectual, cognitive or even spiritual - is in our genes. Sever that connection and we are floating in a world where our deepest sense of ourselves is lost.

Stephen and Rachel Kaplan take the psychological implications of this dislocation further. Their research, begun in the 1980s, focuses on the burden that living outside the natural world imposes on the brain. Modern life, loaded with stimuli, multiple forms of communication and information requiring rapid processing and selection, demands what they call 'directed attention' from the right frontal cortex of the brain - the same part of the brain that appears to be affected in children with attention deficit hyperactivity disorder. This kind of focused attention is tiring and requires enormous effort to block out distractions, resulting in symptoms of impatience, planning impairment, indecision and irritability. The natural environment, on the other hand, holds our attention indirectly, providing what the Kaplans call 'soft fascination', a broad absorption that demands little or no effort and provides plenty of space for reflection and mental recovery. Their studies showed that even comparatively effortless pastimes like listening to music or watching TV are not as effective as nature at clearing the mind and recovering the powers of direct attention. There is an evolutionary explanation here, too: being focused on any subject or activity too closely or for too long would have rendered early humans vulnerable to attack. Much less costly, in terms of brain energy, would have been the broader, softer 'indirect attention' involved in gathering food, looking after animals and making things, all of which allow the mind to keep a weather eye out for danger - a state of relaxed alertness ness close to what Buddhists would call kinetic meditation or mindfulness.

Other research by Roger Ulrich, the pioneer of evidence based healthcare design, suggests that our responses to nature, and in particular the ability to be calmed and reassured by particular natural settings and views, are located in a much older, deeper part of the brain - the limbic system that generates survival reflexes. Evolution, he suggests, would have favoured those early humans whose physiological reaction to certain natural features enabled them to recover swiftly from stressful, energy-burning fight-or-flight responses and encouraged to remain in areas of safety and food.

The environment Ulrich identifies as providing this restorative sense of calm and security involves leafy plants and greenery, still or slow-moving water, spatial openness, free-standing trees and unthreatening wildlife - all features that produce the best recovery responses in modern-day stress tests. It is the landscape associated with E. 0. Wilson's Biophilia Hypothesis and that the Kaplans, too, identify as making us feel most at ease. Evolutionary biologists Gordon Orians and Judi Heerwagen claim that this is the ghost of the savannah in our heads, harking back to our ancestry as hunter-gatherers in Africa. It is the environment we subconsciously mimic in our urban parks and gardens; that we cherish in old master paintings; that we idealize as Arcadia; that Humphry Repton, unwittingly working to the blueprint of his DNA, recreated for his clients. But it is also the landscape emerging with no human effort in the Southern Block at Knepp. It is open wood pasture - the scene that greeted early humans when they arrived in Europe, a continent thronging with gigantic herds of grazing animals, just like Africa; the ecosystem we continued to sustain with our royal hunting 'forests' and marginal 'wastes' of the grazing commons until the end of the Middle Ages not only because it provided us with the richest resources but because it was where we felt instinctively at home.

Over the past few years as rewilding has gained recognition it has drawn opposition from the champions of 'cultural landscapes' who see untrammelled nature as a force that might obliterate our historical past. But it is worth considering what kind of landscape and what kind of culture they are talking about here. The natural features defended as our inalienable British heritage are almost always Victorian - the Highland deer-scapes of Landseer, the stone-walled crofts of the wool boom, the hedges and fields of the Enclosure Acts, grouse moors, canalized rivers, even mature forestry plantations. But there is another cultural landscape we might do better to evoke - the one eclipsed by the era of the industrial revolution, its loss lamented by the likes of John Glare and Gerard Manley Hopkins even as the transformation was under way. If medieval wood pasture - our true 'forest' - is the baseline, rewilding is far from vandalistic. It restores to us a richer, deeper countryside that accompanied us for thousands of years.

And it is this deeper nature which holds the key to our future, not only in terms of mental and psychological health but in services vital to our long-term prosperity and survival - like the protection of watersheds, water and air decontamination, flood mitigation, soil restoration, the provision of pollinating insects, the safeguarding of biological diversity and carbon sequestration. As the UK begins to divorce itself from European regulations and reconsider the costs of farming subsidies, there are big choices to be made. '

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