

Nature's way of surviving

Yann Arthus-Bertrand's stunning photographic exhibition "Earth from the Air" visited my city of Norwich a few weeks ago. The aerial photographs, which depict an astounding array of natural and human-sculpted landscapes, offered a perspective on our planet unknown to previous generations. Just as the first "blue planet" satellite image of the Earth in the 1960s altered our visual orientation with respect to our world, so Bertrand's unique photographic narrative offers us another new place from which to view the planet.

Yet both of these examples are platforms of perspective denied previous generations, available to pre-moderns only in their imagination. The irony is that it is human ingenuity and technology that have enabled such non-natural ways of looking at our natural world.

Jules Pretty's latest book, *The Earth Only Endures*, offers us another unconventional perspective from which to examine our habitation of the Earth and the ways we value and relate to it — at least unconventional to our commodity-saturated generation.

It is a perspective that pre-moderns would have largely taken for granted. Rather than a defence of nature on grounds of economics (the material benefits it offers us) or ethics (the respect we offer it), Pretty offers us an eloquent and more poetic justification of why nature matters, extolling, as he does, the emotional benefits with which landscapes, animals and places enrich our lives. These benefits we have too often neglected as our societies have developed, "progressed" and transited into the modern era.

Pretty is a distinguished academic biologist who has contributed much to our thinking about agricultural sustainability and the relationship between food, land, technology and society. In this book, his point of departure is rather different. In 16 essays, mixing historical, anecdotal and analytical styles, he develops his thesis that "green places are good places", that our sense of meaning, identity and wellbeing are inseparable from the Earth and its living creatures. Our survival depends on recapturing these ruptured relationships.

For such an impressionistic and poetic account of our human predicament, Pretty's worldview seems surprisingly secular and materialist. In seeking a return to a more cyclical notion of time and in denouncing that old Enlightenment chimera of

progress (a myth that by surviving the 20th century has shown itself to be remarkably resilient), Pretty's views accord with many traditional cultures and with many religious traditions.

Many of us can surely identify with those moments of peace and tranquillity that he describes when our sense of time is suspended and replaced by a deep sense of belonging in a singular, interrelated universe. These are transcending experiences of nature that many of us can only describe in supernatural or mystical terms.

It is this lack of the transcendent — what we might call the spiritual — that naggingly seems absent in

The Earth Only Endures: On Reconnecting with Nature and our Place in it

By Jules Pretty

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Pretty's defence of our relationship with nature.

Maybe he is a "bright" — that awkward-sounding noun coined by Paul Geisert and Mynga Futrell in 2003 to describe a naturalistic Dawkinsian worldview that excludes the supernatural and mystical.

Maybe what we see is all that truly exists, and hence all that truly matters.

But if this is so, then all the emotions that Pretty allows nature to release in us only amount to so much inoculation against the brutal reality of a self-contained universe and a self-referential humanity.

There is much in *The Earth Only Endures* to applaud and to assimilate into the way we moderns live, think, relax and meditate. We should appreciate the healing role of green spaces, the therapy of wild places, and the value of endowed landscapes and the stories we tell about them. We should learn from cultures better attuned to their local environments and which value relationships over consumption. We need more history and geography; we need to be situated people.

And Pretty, correctly, is not one of those determinists who sees our fate as scripted, either through our genes, in political ideology or by computer model predictions of the future. He is optimistic that by reconnecting with nature, consuming less and becoming more native to places, the future can indeed be brighter.

This is an optimism that I share. It's just that I believe we are more likely to secure these transitions through difficult times and across resistant territory if we have a sense of the transcendent as well as of the immanent.

Mike Hulme is professor of environmental sciences, University of East Anglia. He is writing a book on why we disagree about climate change.

Graduates say economics is too theoretical to be useful. **Diane Coyle** agrees

A little more than 20 years ago, David Colander, a professor of economics at Middlebury College in Vermont, collaborated with Arjo Klammer of Erasmus University Rotterdam on a survey of economics graduate students. The students were at the elite US departments of The University of Chicago, Harvard University, Massachusetts Institute of Technology, Princeton University and Stanford University. A now classic article drew some dismal conclusions about the state of the subject from the attitudes of the brightest of the next generation of economists.

Economics as taught in these institutions, which set the benchmark for all other economics departments in the English-speaking world and beyond, was extremely mathematical and theoretical, with little relevance to the jobs that most students would go on to in the worlds of policy, finance and business.

The paper, published as *The Making of An Economist* in the *Journal of Economic Perspectives* in 1987, caused a stir. Such was the dissatisfaction expressed by students that Robert Eisner, the then president of the American Economic Association, set up a Commission on Graduate Education in Economics. It recommended a number of sweeping curriculum reforms. Economics departments greeted the Commission's report with — silence. Nothing much changed.

Critics of economics — and they are legion — will not be surprised by anything I have

A discipline that doesn't add up

written so far. The notion that economics is mathematical, abstruse and unreal is firmly embedded in the popular and even the academic mind. Is there anything new in Colander's update of his 1983 survey, and follow-up interviews, conducted in 2003-2004 and reported in this book?

Yes and no — and the reasons that both answers apply make this book an essential read for anyone interested in the education of economists and the health of the subject (although I should add that Colander is a true economist in his devotion to the empirical evidence and his dry writing style, so it is not a rip-roaring read).

What has changed, and dramatically so, since the 1980s, is the nature of economics itself. As Colander writes: "What were taken as requirements of research in the 1980s are no longer requirements in the 2000s; the holy trinity of greed, equilibrium and rationality has been replaced by a looser trilogy of purposeful behaviour, sustainability and enlightened self-interest."

He finds refracted in the interests and attitudes of today's young economists the shift in the character of the subject, one which has been little noticed by anyone outside the profession. Economics has, after a long detour into mathematical reductionism, rediscovered its soul. According to Colander, the shift is not earth-shattering, as measured, say, by the proportions of survey respondents who see empirical knowledge of the economy or historical knowledge as important, rather than skill at mathematics. Nevertheless, he sees a definite evolution.

"My critique of economics now is not about economics but is about pedagogy — specifically about the structure of the core in graduate economics," he says. The central point of this book is that what graduate students of economics are taught in their core micro, macro and econometrics courses remains theoretical, abstruse and of no interest or use to them.

The core courses are not even preparing students well for careers as academic econo-

mists, never mind for other types of career. That preparation comes in special field papers, after two years of graduate study, when all but the most determined will have been driven away by the peculiar madness of general equilibrium theory or the dynamic stochastic version of it that has colonised theoretical macroeconomics. Even those who stick with a PhD programme and then transfer out of the academic world to a job in finance or policy-making will find they need substantial on-the-job training in applied economics and econometrics.

The teaching of graduate economics is, Colander concludes, dreadfully flawed. It was flawed 20 years ago, as he documents with a follow-up survey of his original 1983 respondents, working now in a wide variety of jobs. They are clear that most of what they learnt happened once they had started work. The pedagogical flaws are greater now, as a graduate education in economics is no longer even a good preparation for the kind of research that academic economists themselves conduct.

Although his survey work covers only a few American institutions, their core curriculum has shaped that taught to economics students almost everywhere. Will economics departments and bodies such as our own Royal Economic Society step up to the challenge Colander sets them with this book, and reshape the graduate curriculum?

I hope so, or we will find ourselves with even fewer graduate students in economics than we have now.

Diane Coyle runs the consultancy Enlightenment Economics, is a BBC trustee and a visiting professor at Manchester University's Institute of Political and Economic Governance. She is the author of *The Soulful Science*.