

I can also get a sense of personalities and ideas — although I try to avoid focusing on specific living people in my books.

What is *Hieroglyph*?

It was born from a friendly argument with Michael Crow, president of Arizona State University in Tempe. I was complaining that progress in material technology has petered out. We have taken the creativity that went into designing rockets and channelled it into information technology (IT). A lot of bright people are dedicating their lives to inconsequential things: writing apps and so on. There is a lack of grandeur. Crow said, “It’s your fault. You sci-fi writers need to give us something to work on.” So the university, with my input, founded the Center for Science and the Imagination and launched Project Hieroglyph as an online forum where science-fiction authors could write in an optimistic vein, positing attainable technologies for young engineers. The collection *Hieroglyph*, out this month, showcases work by 20 visionaries, including astrophysicist and award-winning writer Gregory Benford, and science-fiction authors Cory Doctorow, Elizabeth Bear and Bruce Sterling. My contribution is ‘Atmosphaera Incognita’, about the construction of a 20-kilometre steel tower and the resulting adventures.

What do you think about the trend for apocalyptic science fiction?

In the 1950s we could see that we have a rocket and if we build a bigger rocket, we could go to the Moon. But with advances in nanotechnology and IT, there are many imponderable outcomes. It is easier to predict a gloomy one. But that has led to lazy, derivative, predictable stories, especially on television and in movies.

What do you think about the rise of anti-science feeling in the United States?

It is a surprise to me. Growing up in Ames, I went to a Methodist church filled with professors who never would have questioned the validity of evolution. I think a lot of opposition to global warming and evolution is not about science. The majority of people who identify themselves as global-warming sceptics, for example, do believe it is happening. But they think that admitting that will open the door to excessive regulation by the government. They don’t come from the scientific community, where it is important to say what you mean. They come from a political community, where what really matters is the final outcome. I think it’s self-destructive in the long run — people who refuse to face reality are infantilizing themselves. ■

INTERVIEW BY ZEEYA MERALI

Books in brief



The Human Age: The World Shaped By Us

Diane Ackerman W. W. NORTON (2014)

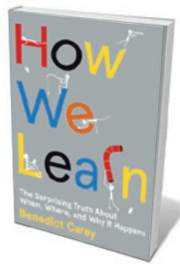
The incisive yet optimistic science writer Diane Ackerman slices into the chaotic age of turbocharged technology and environmental crisis that we call the Anthropocene. She zips from deep history to speculative futures to contextualize snapshots of our vivid, frenetic present. We meet an ocean-column farmer and an orang-utan wielding an iPad; consider cross-border wildlife corridors and invasive species; wonder at the human microbiome and printed drugs. As Ackerman deciphers our grave new world, one message reverberates — that we “still and forever remain a part of nature”.



A Buzz in the Meadow

Dave Goulson JONATHAN CAPE (2014)

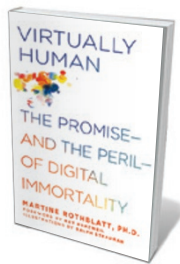
In 2003, leading bee researcher Dave Goulson bought a run-down farm in France. His aim was to provide a haven for the insects he has devoted his life to studying, notably the bumblebee. He writes beautifully of the panoply of creatures — from deathwatch beetles to dragonflies — that often pass unnoticed under our noses. But for all its easy charm, Goulson’s account is permeated with awareness that biodiversity is now often confined to managed sanctuaries. What begins as a scientific rural idyll becomes a journey into the imperilled territory of Rachel Carson’s *Silent Spring* (Houghton Mifflin, 1962).



How We Learn: The Surprising Truth About When, Where, and Why It Happens

Benedict Carey RANDOM HOUSE (2014)

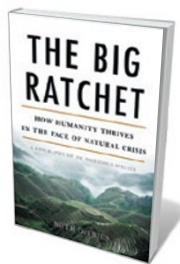
Learn how to learn, enjoins science journalist Benedict Carey in this tour of past and present research on the process. Hard graft is just part of the package; what is key, Carey argues, is exploiting the brain’s quirks. He lays bare the biology, cognitive science and “ways to co-opt the subconscious mind” that ensure mental labour becomes ingrained. Carey is an adroit guide to techniques for comprehension and retention, whether exploring the value of forgetting, distraction and interruption, or examining the power of studying in varied venues.



Virtually Human: The Promise — and the Peril — of Digital Immortality

Martine Rothblatt ST MARTIN’S PRESS (2014)

In this explication of cutting-edge artificial intelligence, technologist Martine Rothblatt argues that software brains will “express the complexities of the human psyche, sentience, and soul” surprisingly soon. Aeroplanes, she notes, lack the complexity of birds but still fly; similarly, cyber-doppelgängers or “mindclones” will emerge when symbol-association software is combined with personal information gathered on social media (“mindfiles”). Rothblatt lays out a serious analysis of the ethical and scientific implications.



The Big Ratchet: How Humanity Thrives in the Face of Natural Crisis

Ruth DeFries BASIC BOOKS (2014)

Vastly boosted agricultural production and cheaper food have driven today’s human boom — the “big ratchet”, or explosion in population over the past six decades — argues environmental geographer Ruth DeFries. Now, we are embarking on the vast experiment of feeding today’s 7-billion-plus people, with no sure outcome. DeFries unpicks the historical patterns to parse the uneasy equation of people and food — our most powerful link with nature. [Barbara Kiser](#)