

Yet we can curb the urban energy appetite. Troy covers a growing list of successes — stories of improved energy and resource efficiency, better technology, collective solutions and foresight. For example, semiconductor manufacturer Intel is pumping three-quarters of the water it uses in its New Mexico facility back into local aquifers. The city of Los Angeles is belatedly resuscitating its once-extensive urban light-rail system. Vermont has deployed a highly successful statewide energy-efficiency programme.

Policy tools such as location-efficient mortgages — which encourage people to buy houses in areas that have abundant public transport — can help to recalibrate economic incentives with energy and climate realities. Congestion-charge schemes such as that in London are reducing traffic in dense urban areas, and time-of-day charges for electricity cut energy use. Even the Empire State Building in New York has been refurbished to lower its energy use by 38%, hinting at potential changes for older buildings everywhere.

Energy-efficient developments are proving to be popular and economically viable. Denver, Colorado, for instance, has revitalized derelict properties in the lower downtown area. Portland in Oregon set up a growth boundary for the city in 1973, deflecting investment downtown with dramatic results. And creative urban designers such as Peter Calthorpe — a pioneer of community models that integrate principles such as environmental sustainability and mixed-use building — continue to push the boundaries. The keys to making smart development the default setting and not an anomaly are creative, long-term public policies and investment strategies that stress energy efficiency and the deployment of renewable energy.

We may even be seeing the start of a global urban renaissance in places such as Masdar City. Once finished, it will house 50,000 people and get all of its energy from sunlight and other renewable sources. But this does not mean abandoning existing urban settlements. Many older European cities are prosperous, attractive and increasingly sustainable because they have preserved a coherent core and developed a robust urban infrastructure for bikes and light-rail systems. In short, cities in many other countries are doing a great deal better than those in the United States.

There are two models of our urban future. One is a dystopian nightmare of crowded, decaying, violent cities. Troy presents the other: a vision of lean, efficient, human-scaled, sustainable cities fed by efficiency, better design and renewable energy. ■

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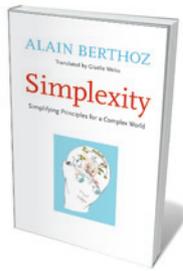
Books in brief



That's Disgusting: Unraveling the Mysteries of Repulsion

Rachel Herz W. W. NORTON 288 pp. \$26.95 (2012)

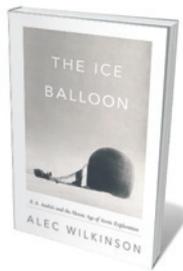
The emotion of disgust has its evolutionary roots in avoiding poisonous food, notes psychologist Rachel Herz. It has penetrated many areas of human life, as shown by lawyers' and politicians' efforts to incite disgust about their opponents. But that doesn't explain why the things that one culture or individual finds repulsive — such as sea-urchin sushi or horror films — are delightful to another. In her lively tour of vileness, Herz argues that disgust is in the mind of the beholder, and explains how studies of Huntington's disease pinpointed the brain areas involved in this emotion.



Simplicity: Simplifying Principles for a Complex World

Alain Berthoz (translated by Giselle Weiss) YALE UNIVERSITY PRESS 288 pp. \$38 (2012)

Living things navigate their complex worlds superbly, making tasks such as walking — which thwart the most sophisticated machines — look like child's play. Simplicity, says physiologist Alain Berthoz, allows life to achieve such feats. It involves transforming “a rich combination of simple rules” into a model of reality that aids action and decision-making, yet respects complexity. Berthoz uses examples from perception, locomotion and neuroscience, but argues that simplicity is at work on all levels, from cells to societies and even in love.



The Ice Balloon: S. A. Andrée and the Heroic Age of Arctic Exploration

Alec Wilkinson ALFRED A. KNOPF 256 pp. \$25.95 (2012)

In 1897, the Swedish explorer Salomon August Andrée sought to use a hydrogen balloon to become the first man to reach the North Pole. Alec Wilkinson's tenth book opens in 1930 with the discovery of Andrée's corpse on a remote Arctic island. It recounts the ill-fated journey through the diaries and photographs of Andrée and his two companions. Wilkinson shows how science and exploration went hand in hand, and how Arctic explorers were celebrities, with the balloonists meriting waxworks in Madame Tussauds museum.



Too Big to Know: Rethinking Knowledge Now That the Facts Aren't the Facts, Experts Are Everywhere, and the Smartest Person in the Room Is the Room

David Weinberger BASIC BOOKS 256 pp. \$25.99 (2012)

Once, says philosopher David Weinberger, experts mastered knowledge and controlled what the rest of us made of it. Now, disciplines such as climate science and molecular biology contain too much data for humans to parse or for theories to explain. Instead, the network is the expert, and anyone can join in. This is creating new forms of communication for science, both educating more people and enabling us to be more emphatically wrong.



Together: The Rituals, Pleasures and Politics of Co-operation

Richard Sennett ALLEN LANE 336 pp. £25 (2012)

Societies are increasingly complex. Yet we stall at mingling with other ‘tribes’, a trend exacerbated by politicians calling for cultural homogenization. Sociologist Richard Sennett says that the key is learning how to cooperate. In the second of his trio on constructive living, case studies reveal how the upheavals of the early modern era and unethical work practices have broken down cooperation. As a route to remaking it, Sennett advocates ‘everyday diplomacy’, an essential craft that could heal societal rifts from the inside out.