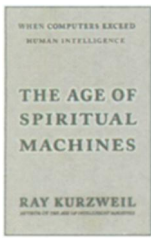


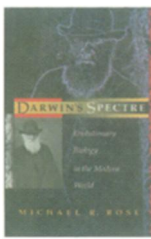
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The Age of Spiritual Machines: When Computers Exceed Human Intelligence—Ray Kurzweil. The father of voice-recognition software optimistically maps out the next 100 years of computer technology. Considering that computers are due to match humans in memory capacity and brain speed by 2020, Kurzweil's sci-

ence-fiction-type ideas suggest that through reverse engineering, machines will mirror humans. For example, people will be able to clone themselves by downloading their brains. Computers will also facilitate sight for the blind and instantaneous translation between two people speaking foreign languages. Viking, 1999, 388 p., hardcover, \$25.95.



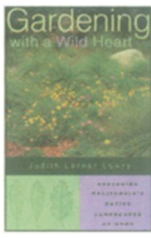
Darwin's Spectre: Evolutionary Biology in the Modern World—Michael R. Rose. Charles Darwin was clearly underappreciated during his lifetime. However, his evolutionary legacy permeates virtually every aspect of modern science. Rose, best know for his studies of life extension in fruit flies, documents Darwin's ideas and shows how they thread through aspects of plant breeding and medical research. Evolution's negative impact in the form of the eugenics movement is not a subject Rose shirks. In conclusion, he considers what Darwinism can tell us about human behavior ranging from religion to politics. Princeton U Pr, 1998, 233 p., hardcover, \$27.95.

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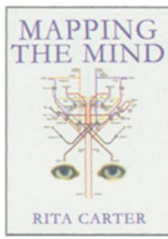
Floods, Famines, and Emperors: El Niño and the Fate of Civilizations—Brian Fagan. Satellites warned of a large mass of warm water swelling in the Pacific. Even with that notice and the benefit of swift emergency aid, we are still reeling from the 1997-98 El Niño. It's hard to imagine how people

coped without such survival support. Fagan, an archaeologist, links the demise or change of many civilizations to dramatic climatic events that altered the landscape and shook up people's belief systems. New meteorological technologies allow depiction of El Niño-induced floods and droughts in different parts of the world. On the basis of this knowledge, Fagan assesses how some ancient civilizations fared in the wake of an El Niño. Basic, 1999, 284 p., illus., hardcover, \$25.00.



Gardening with a Wild Heart: Restoring California's Native Landscapes at Home—Judith Lerner Lowry. In a down-home style, Lowry, a proprietor of a seed nursery, blends anecdote with precise information about cultivating and identifying plants native to California. Her subject spans native grasses, wildflower gardening, and plant-animal interactions. U CA Pr, 1999, 252 p., color plates, paperback, \$17.95.

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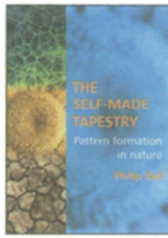
Mapping the Mind—Rita Carter. This primer on behavioral neuroscience relies heavily on results from cutting-edge brain-imaging techniques. These images seem to reveal mechanisms that control aspects of personality and behavior. Addictions appear to stem from trouble

within the brain's reward system. Joy triggers a "glow" in one area of the brain. Such examples combine with contributions from leaders in the field. Steven Mithen and Steven Rose, among others, offer alternative viewpoints on some of the brain-function theories described. U CA Pr, 1998, 224 p., color illus., hardcover, \$29.95.



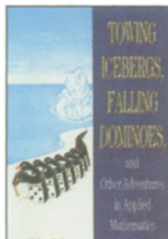
Online Kids: A Young Surfer's Guide to Cyberspace—Preston Gralla. As you'd expect, this book tells kids where to get help with homework and check out batting averages online. But it also shows the way to sites where they can dissect a virtual frog, key into the CIA's

World Fact Book, and view live video clips from outer space. Completely updated and revised from its 1996 publication, the guide considers online safety for children and how to build one's own web page. Wiley, 1999, 276 p., b&w illus., paperback, \$14.95.



The Self-Made Tapestry: Pattern Formation in Nature—Philip Ball. Form does not always follow function. Complex form does not have to be guided by some kind of intelligence. The author of these contrarian views is Ball, a former editor of NATURE. He surmises that the patterns as they

appear on zebras and in honeycombs are not coincidental. Their origins can be found within simple physical laws. For instance, a heated pan of oil produces a hexagonal image—a self-organized pattern produced through local interactions between component parts. Ball considers where such patterns come from and why symmetry is so often broken in similar ways in different systems. OUP, 1999, 287 p., color plates/b&w photos/illus., hardcover, \$37.50.



Towing Icebergs, Falling Dominoes, and Other Adventures in Applied Mathematics—Robert B. Banks. A former professor of engineering ponders 24 human endeavors and presents a mathematical analysis of each. How much money would the United States need to liquidate the federal debt by 2050? What is the velocity of falling dominoes? Why do we get stuck in traffic? These are among the quandaries to which Banks applies mathematical models. The foundations of his answers range from elementary algebra to integral calculus. Princeton U Pr, 1998, 328 p., illus., hardcover, \$29.95.

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