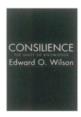
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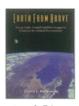
The Cerebral Code: Thinking a Thought in the Mosaics of the Mind—William H. Calvin. Calvin homes in on what happens in the brain to produce human consciousness and intelligence. He asserts that "starting with shuffled memories not better than the jum-

ble of our nighttime dreams, a mental image can evolve . . . into a sentence to speak aloud." The brain's equivalents of a half dozen essential features of Darwinian theory fuel this process and help dictate how we react and how we think. Originally published in hardcover in 1996. MIT Pr, 1998, 256 p., b&w photos/illus., paperback, \$14.00.



Consilience: The Unity of Knowledge—Edward O. Wilson. With the publication of this book, Wilson, the prophet of biodiversity and one of the most eminent biologists of all time, is likely to add another Pulitzer Prize to his collection. Here, he argues for consilience—the

proof that everything in our world is organized according to a small number of natural laws that underlie every branch of learning: that is, universal knowledge. When we have unified enough certain knowledge, then the mysteries surrounding who we are and why we are here will unfold, according to Wilson. Returning to the Age of Enlightenment, he shows how the ancient Greek concept of an order that governs our cosmos and the human species is evident in modern fields, including economics, the arts, biology, and religion. Knopf, 1998, 332 p., hardcover, \$26.00.



Earth From Above: Using Color-Coded Satellite Images to Examine the Global Environment—Claire L. Parkinson. Satellite-generated images have become ubiquitous, but what can pictures like these tell us about our planet and its atmos-

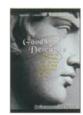
phere? Fifty such satellite images are presented and analyzed here to show how scientists interpret them in order to understand and predict shifting weather patterns over time, atmospheric conditions such as El Niño, global warming, and sea ice converge. Univ Sci Pr, 1997, 175 p., color photos/illus., paperback, \$30.00.



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Electronic Genie: The Tangled History of Silicon—Frederick Seitz and Norman G. Einspruch. Beginning two centuries ago with Antoine Lavoisier musing that silicon may be an element and continuing all the way to the story of how Bill Gates became one of the most powerful men in the modern

world, Seitz and Einspruch trace the emergence of electronic technology. From both a business and technological viewpoint, they describe different types of radar systems used by the U.S. and by the U.S. S.R., the diode rectifier in wireless and radio, and digital computers. Univ. III Pr, 1998, 281 p., b&w photos/illus., hardcover, \$34.95.



Goodbye Descartes: The End of Logic and the Search for a New Cosmology of the Mind—Keith Devlin. Descartes asserted that the rules of logic, as put forth by Plato and Aristotle, dictate human thought—a decree followed by most scientists since. But modern technology

requires a better understanding of how humans think, communicate, and reason. Devlin defies Descartes and proponents of Artificial Intelligence noting that a small child's conversation can still baffle any machine. Instead, he argues for the creation of an expanded area of logic that he calls "soft mathematics." Devlin surveys the history of logic, both traditional and mathematical, and examines linguistics in order to offer insight into how we think. Originally published in hardcover in 1997. Wiley, 1998, 301 p., paperback, \$14.95.



Online Family: Your Guide to Fun and Discovery in Cyber-space—Preston Gralla. If you don't have the patience for sorting through the thousands of hits your browser may find for general topics such as pediatric

advice, summer camps, homework help, pet care, or financial advice, then this guide may help you set your bookmarks to the sites of most interest to you and your family. Gralla offers synopses of what kind of information is harbored at each site and where to find it on the internet. Wiley, 1998, 354 p., b&w illus., paperback, \$16.95.



Randomness—Deborah J. Bennett. Dice made of bone turn up in archaeological digs around the world. Evidence of ancient Egyptian games of chance are plentiful too. Gaming may be a primitive preoccupation, but the formal study of probability dates

only to the mid 1500s. According to Bennett, even the most educated people are often incapable of properly reasoning a "fair" verdict or decision because of the general perplexity raised by randomness. In an effort to illuminate this misunderstood realm of thought, she studies the role of gambling in understanding chance, how likely rare events are in the long run, whether or not true randomness exists, why probability is so counter-intuitive, and why some societies reject randomness altogether. HUP, 1998, 238 p., b&w illus., hardcover, \$22.95.



Spineless Wonders: Strange Tales From the Invertebrate World—Richard Conniff. More than 99 percent of all animal species on Earth are invertebrates. Yet humans largely abhor leeches and flies, even though our existence depends on their kind. This showcase of the

spineless among us profiles such creatures within the context of the overall well-being of life on Earth. Conniff describes the resurgence of leeches in medicine, the nutritional value of calamari, and the agricultural heritage of earthworms. Originally published in hardcover in 1996. Owl, 1997, 222 p., paperback, \$12.95.

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