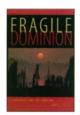
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The Clock of the Long Now: Time and Responsibility— Stewart Brand. In response to what he calls our pathologically brief attention spans and shortsighted natures, Brand proffers a "myth and a mechanism": a very big, very slow "Clock of the Long Now." It would tick

once a year, bong once a century, cuckoo once a millenium, and record 10,000 years of future time. The myth would represent "deep time." The mechanism, Stonehenge-like, would ideally be built in the American desert with a companion library. Brand floats his own ideas along with those of other members of the Long Now Foundation, including Daniel Hillis, Esther Dyson, and Kevin Kelly. Basic Bks, 1999, 190 p., hardcover, \$22.00.



Fragile Dominion: Complexity and the Commons—Simon Levin. Like global economies and a young child's ever-adjusting nervous system, biodiversity exemplifies what mathematicians refer to as a complex adaptive system. Able to self-replicate, organized without a

blueprint, and competitive in nature, such systems are composed of diverse components that implement feedback loops in response to one another. Levin applies the concept of the complex adaptive system to the crisis of rapidly diminishing species and declining biological diversity. In doing so, he answers such questions as, What patterns exist in nature? How do ecosystems assemble themselves? How resilient are ecosystems? How much loss can they sustain before collapsing? It is Levin's opinion that this understanding could enable people to implement an effective plan of sustainability. They could thereby "harness the natural forces that organize the biosphere rather than fruitlessly try to resist them." Perseus Bks, 1999, 250 p., hardcover, \$27.00.



Islands: Portraits of Miniature Worlds—Louise B. Young. Young tells the geological and ecological history of 14 "islands," ranging from frigid Iceland to the tropical Bahamas and from Earth ("an island in the universe") to Atlantis ("the enduring myth").

The variance in climates and isolation of these worlds has generated unique and exotic species of flora and fauna, which Young surveys. She also points out the unique problems faced by human and nonhuman island dwellers: Creatures such as the Komodo dragon are destructive, and inbreeding within species limited to small spaces can trigger extinction. Freeman, 1999, 296 p., b&w illus., hardcover, \$23.95.

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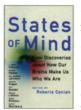
The New Astronomer: The Practical Guide to the Skills and Techniques of Skywatching—Carole Stott. Loaded with pictures and graphics of constellations, planets, nebulae, comets, and asteroids, this book lends itself well to instructing young

astronomers and other novices. Succinct yet informative captions offer an abridged description of the field and make it more accessible. Maps for viewing planets through 2010 and a planisphere that shows the entire sky for any time of the night during any time of the year enhance this practical book. DK, 1999, color photos/illus., hardcover, \$24.95.



The Secret Family: Twenty-Four Hours Inside the Mysterious World of Our Minds and Bodies—David Bodanis. Beginning with the endorphin rush produced by morning sunlight, Bodanis explores the microscopic world in and around the

bodies of a typical family on a random Saturday. This includes the physiology of a girl's first kiss and micro-photographic images of the multitude of mites lurking in pillows and mattresses. At once clever, gross, and engrossing, this tour views our intimate environment and its effect on our bodies and behavior among other things. Originally published in hardcover in 1997. Touchstone, 1999, 222 p., color/b&w photos, paperback, \$18.00.



States of Mind: New Discoveries About How Our Brains Make Us Who We Are—Roberta Conlan, ed. Essays penned by eight pioneering brain scientists define emerging and controversial ideas within the field. J. Allan Hobson offers theories about why we dream. The director of the Nation-

al Institute of Mental Health, Steven Hyman, considers the links between nurture and nature and addiction and mental illness. His coworker Esther Stemberg shares her findings from the study of the brain and disease. Personality and temperament are Jerome Kagan's topics. The impact of stress and fear on cognitive abilities concern Bruce McEwen and Joseph LeDoux, respectively. Kay Redman describes the connection between creativity and manic depression. Finally, Eric Kandel examines how biological events create long-term memories. Wiley, 1999, 214 p., b&w photos/illus., hardcover, \$24.95.



Within Reason: Rationality and Human Behavior—Donald B. Calne. Neuroscientist Calne links current advances within his field to the philosophical pursuits of Plato and Socrates, among others, in comprehending reason. Arguing that reasoning is a bio-

logical pursuit, Calne shows how our brains provide us with our minds, which in turn allow us to create concepts of space, time, and causation. These thoughts, combined with memory, establish the faculty of reason. This product is limited by other biological factors, however. So-called gut reactions exemplify such constraints. Calne asserts, "We are motivated by instinctive urges and emotions linked to cultural forces—reason is their servant and not their master." He applies this notion to broad issues such as ethics, economics, and religion and considers how reason seemingly fails us at times. Pantheon, 1999, 332 p., hardcover, \$26.00.

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