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The Importance of Being Fuzzy: And Other Insights From the Border Between Math and Computers—Arturo Sangalli. Emerging "intelligent" soft computing systems based on fuzzy logic, neural networks, and genetic algorithms diverge from the precise nature of mathematics. But mathe-

matics is the neglected "soul" of computers. Modern computer science challenges mathematical thinking to include "maybe" rather than just "yes" and "no." Sangalli does some "soul" searching to reveal this mathematical revolution. Practical technological advances based on computer-influenced mathematics range from better medical diagnosis to forecasting-currency exchange rates. Such examples of modern problem solving interlace Sangalli's discussion of the limits of classical computing. Princeton U Pr, 1998, 173 p., hardcover, \$24.95.



Lamarck's Signature: How Retrogenes Are Changing Darwin's Natural Selection Paradigm—Edward J. Steele, Robyn A. Lindley, and Robert V. Blanden. According to these molecular biologists, 19th-century biologist Jean Lamarck is once again in vogue. Lamarck asserted that acquired characteristics resulting

from environmental factors could be transmitted to future gene......rations. This viewpoint prevailed for 50 years until Charles Darwin's vision of natural selection eclipsed it. Modern advances in DNA sequencing and other aspects of molecular biology reveal that certain acquired structures of the immune system may be transferred from parent to child, defying commonly held evolutionary beliefs. Steele, Lindley, and Blanden detail this emerging view of the genetic evolution of the immune system. Perseus Bks, 1998, 286 p., illus., hardcover, \$25.00.



My Brain Is Open: The Mathematical Journeys of Paul Erdos—Bruce Schechter. Paul Erdos was the stereotypic mad genius. Virtually incapable of caring for himself, he would appear on the doorsteps of his peers around the world seeking shelter. Each one welcomed him warmly for the chance to

bond with the greatest mathematical mind of the 20th century. Erdos was the most prolific and one of the most important mathematicians ever to live. The elegance of his proofs reflected his true love of numbers. Schechter reveals the breadth of Erdos' mathematical acumen regardless of his eccentricities. Erdos, a Jew with radical political beliefs, was aloof, but he still faced the persecution prevalent during the mid-1900s. S&S, 1998, 224 p., hardcover, \$25.00.

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The Patent Files: Dispatches from the Frontiers of Invention—David Lindsay. The Greenhouse Helmet—a hat with live plants on top intended to be an all-natural air purifier for the wearer—is patented. So is Electric Smoking, a supposedly harmless method of partaking in the vice. In a regular column for

the New York Press devoted to the U.S. Patent Office, Lindsay unearthed these gems and more. This quirky sampling of his essays encompasses the inner workings of the U.S. Patent Office and interviews with inventors soliciting the agency. Lyons, 1999, 232 p., hardcover, \$22.95.



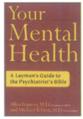
Pompeii: Public and Private Life—Paul Zanker. When Mt. Vesuvius erupted in 79 A.D., Pompeii had been an established city for more than 200 years. The amazing preservative effects of the lava and ash that spewed from the volcano captured more than a day in the life of Pompeians. It pre-

served an ancient civilization. Now, researchers are turning their attention from the city's art and architecture to the residences and meeting places within the city. These remains beautifully reveal the cultural history of this quite sophisticated place. Advances in understanding the culture of generations of people are documented here with many photos and illustrations of the remains. HUP, 1998, 251 p., color plates/b&w photos/illus., paperback, \$22.95.



Space and the American Imagination—Howard E. McCurdy. The desire to conquer new frontiers has characterized human cultures since prehistoric times. However, the move to explore the final frontier—space—was inspired by a unique set of circumstances, according to McCur-

dy. He points to the Cold War, with its underlying belief that control of space meant control of Earth, as the impetus for the space program. This triggered the involvement of governments and piqued the public's imagination. This entertaining analysis of public policy provides an assessment of our expectations of space exploration versus its achievements. Originally published in hardcover in 1997. Smithsonian Bks, 1999, 294 p., b&w photos, paperback, \$17.95.



Your Mental Health: A Layman's Guide to the Psychiatrist's Bible—Allen Frances and Michael B. First. The Diagnostic and Statistical Manual of Mental Disorders, published by the American Psychiatric Association, is generally regarded as the standard reference for mental health clinicians.

Two physicians integral to its composition reduce the clinical text to common prose useful for patients. Beginning with 20 questions that constitute a diagnostic screening and encompass most psychiatric symptoms, Frances and First systematically address the diagnoses indicated by the reader's answers. After carefully outlining the conditions, the authors offer advice for seeking treatment. Scribner, 1998, 445 p., hardcover, \$27.50.

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