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The Garden Explored: Discover the Unexpected Science of Plants, Soil, Sun, and Seasons-Mia Amato. The Sporting Life: Discover the Unexpected Science Behind Your Favorite Sports and Games—Susan Davis and Sally Stephens. Produced in partnership with the Exploratorium in San Francisco, these books incorporate the "hand on, minds on" tradition of the museum through solid explanations of concepts and activities and experiments that help define them. With a focus on why things grow rather than how, the gardening volume describes the benefit of fava beans for soil and imparts an understanding of soil composition. The second volume outlines the enormous role of human physiology, physics, and aerodynamics in sports and explains why one running shoe is better than another, why athletes frequently injure their knees, and how a baseball is made. As with the Exploratorium itself, both adolescents and adults should find these books of interest. Both books, Owl Bks, 1997, 154 p., b&w photos/illus., paperback, \$12.95.

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The Last Recreations: Hydras, Eggs, and Other Mathematical Mysteries-Martin Gardner. A staple in Scientific American for 30 years until 1986, Gardner's "Mathematical Games" inspired many a modern mathematician—as attested to on this book's dust jacket. As with his other compendiums of columns, original material is augmented by addenda featuring extended references, updates on progress in the various fields, and additional ideas from Gardner himself, along with commentary from readers. This book is the final volume of its sort as it caps the columns of his last 7 years. Topics include the rich history of egg balancing, knot theory, and "Taxicab Geometry," which explores the bizarre properties of a surprisingly simple form of non-Euclidean geometry. Copernicus, 1997, 392 p., color plates/b&w photos/illus., hardcover, \$25.00.

The Lives to Come: The Genetic Revolution and Human Possibilities-Philip Kitcher. In what is sure to strike many readers as a disturbing treatise, Kitcher addresses the social and ethical issues surrounding the impending genetic revolution. Within the next few years, doctors will be increasingly able to test people for predisposition to genetic diseases. Will this information be disclosed to insurance companies and employers? Will a genetic class system evolve? An advocate of "utopian genetics," Kitcher supports the option of aborting fetuses with serious genetic abnormalities. But he worries that this could be carried further in hopes of producing "ideal" offspring. Originally published in hardcover in 1996. Touchstone, 1997, 397 p., paperback, \$14.00.

Living with Herbs: A Treasury of Useful Plants for the Home and Garden—Jo Ann Gardner. The matriarch of a self-reliant farm outside Nova Scotia shares her growing methods, which produce herbs that prosper even in hostile climates. Generalizations about the usefulness of herbs and garden designs are followed by profiles of individual varieties and the various components of the plants, their histories, growing needs, and benefits. Countryman, 1997, 288 p., b&w illus., paperback, \$17.00.

The Plundered Seas: Can the World's Fish Be Saved?—Michael Berrill. The old adage "there are plenty of fish in the sea" may still apply to the dating game, but Berrill sounds a wake-up call that all is not well with the world's oceans and fish supply. The total annual catch now exceeds 80 million tons per year, up from 5 million at the turn of the century. The booming human consumption of fish and the fishing industry's persistent boom-and-bust mentality, perpetuated by economics and governments wary of unpopular decisions are covered. Berrill also lists numerous turnaround scenarios. Sierra, 1997, 208 p., b&w illus., hardcover, \$22.50.

Wild Neighbors: The Humane Approach to Living With Wildlife—John Hadidian, Guy R. Hodge, and John W. Grandy, eds. A little hair, garlic, or water might be all you need to ward off wildlife. From armadillos and cougars to mice and snakes, opening chapters help readers understand various animals' lifestyles and habits, associated diseases, and real threats. Explanations of common wildlife laws, as well as general tools, tactics, and strategies, provide good background. Specific chapters on deterring individual species follow. Fulcrum, 1997, 253 pages, b&w illus., paperback, \$16.95.



Why do trains crash when the signals are working? Why does a nuclear reactor melt down with all operators alert at their posts? Why do so many of our best-laid professional and personal plans so often go awry? Dietrich Dörner, winner of Germany's highest science prize, considers why—given all our intelligence, experience, and information—we make mistakes, sometimes with catastrophic consequences. Surprisingly, he finds the answer not in negligence or carelessness, but in what he calls "the logic of failure": certain tendencies in our patterns of thought—such as taking one thing at a time, cause and effect, and linear thinking—that, while appropriate in an older, simpler world, prove disastrous

for the complex world we live in now.

Dörner finds no lack of examples. Why did the Aswan Dam planners who brought the blessings of cheap electricity to Egypt not realize that they would also interrupt the annual floods that for millennia had kept the Nile Valley rich and fertile? Why do planners of Third World health programs not realize that increased life expectancy requires increased food and thereby inadvertently end up contributing to starvation? Working with intriguing computer simulations of his own invention, Dörner exposes the flaws in our thinking. His examples—sometimes hilarious, sometimes horrifying—and brain-teasing thought experiments teach us how to solve complex problems. Together they make *The Logic of Failure* a corrective tool, a guideline for intel-

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