

high-risk population. Heavy smokers who work around asbestos, uranium or other chemicals that cause cancer are at an especially high risk of getting lung cancer. So Hollinshead and Stewart now want to inject lung cancer antigens into 1,000 members of this population to see whether the antigens reduce their susceptibility to lung cancer. They held a workshop in early 1979 to discuss the idea with members of industry and labor; participants expressed both enthusiasm and reluctance. Hollinshead and Stewart decided to go ahead, provided they receive approval from the Canadian Medical Research Council. They expect approval to come through some time in 1980. Once the trial gets underway, it will take seven or eight years to get a good idea of whether the antigens can prevent cancer.

Even if antigens pan out as a cure and a preventive treatment for three out of four kinds of lung cancer, there is still the fourth major kind of lung cancer that the antigens probably cannot halt because it moves too swiftly even for surgery to catch.

There is hope, however, for victims of deadly small cell lung cancer—thanks to a research approach being used by John Minna and his colleagues. Minna works in an intramural branch of the National Cancer Institute located in the Washington (D.C.) Veterans Administration Hospital. He and his co-workers have treated more than 100 small cell lung cancer patients with a combination of different anticancer drugs, and some of these patients have had impressive survival rates—two to seven years rather than the usual few months. Several other physicians using the same combination of drugs have come up with comparable results.

Minna and co-workers are now attempting to see whether combining their drug regimen with radiation treatments is more effective than the drugs alone. They are also exploring an even more radical treatment—removing bone marrow from a patient, giving the patient such high doses of drugs and radiation that it would kill the bone marrow if it hadn't been removed, then reinjecting the bone marrow back into the body. This ploy, Minna and his team hope, will kill lethal small cell lung cancer but spare patients their bone marrow.

So it looks as if one of the most common and incurable cancers—lung cancer—may soon be successfully treated and perhaps even cured, just as other kinds of cancers are now being successfully treated or cured with a combination of regimens. In fact, lung cancer may eventually even be preventable with a lung antigen vaccine. Whether these dreams come true, of course, depends not on the greatest scientific hopes but on hard scientific evidence that the techniques really work—evidence that can only be culled from present and projected clinical trials. □

BOOKS

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COMPUTERS IN MATHEMATICS: A Sourcebook of Ideas—David H. Ahl, Ed. A collection of articles from CREATIVE COMPUTING magazine for mathematics teachers and those computer hobbyists interested in mathematics problems. Computer literacy and selection of a microcomputer are discussed, in addition to materials and problems for use in the mathematics classroom or for self-teaching at home or at school. Creative Comp, 1979, 213 p., illus., paper, \$15.95.

THE CONQUEST OF PAIN—Peter Fairley. In the United States the cost of treating pain is estimated to exceed 60 billion dollars a year. This book tells the history of pain and man's attempt to eradicate it. Scribner, 1980, 272 p., illus., \$12.95.

CREATURE COMFORTS—Joan Ward-Harris. A charming story of the wild creatures—raccoons, squirrels, Canada geese, hummingbirds and many other animals with which the author shares her home and her love, tending those animals who need her help and then releasing them once again to the wild. St Martin, 1980, 204 p., illus., \$9.95.

DESIGN & MEMORY: Computer Programming in the 20th Century—Peter H. Huyck and Nellie W. Kremenak. According to the preface, "this book is an attempt—albeit slightly irreverent—to look at where the programming phenomenon came from, what it is, and where it is going." The authors suggest some new ways of looking at digital computing. McGraw, 1980, 152 p., \$11.95.

ENERGY IN TRANSITION 1985-2010: Final Report of the Committee on Nuclear and Alternative Energy Systems, National Research Council—National Academy of Sciences. Five years in preparation, this report attempts to detail all aspects of the nation's energy situation likely to affect policy decisions from 1985 to 2010 (SN: 1/19/80, p. 36). W H Freeman, 1980, 677 p., charts and graphs, \$24.95, paper, \$11.95.

INLAND FISHES OF WASHINGTON—Richard S. Wydoski and Richard R. Whitney. Designed to be used to identify Washington state's inland fish and provide information on their life histories and habits. Includes color photographs of each species. U of Wash Pr, 1980, 274 p., color and b&w illus., \$17.50, paper, \$8.95.

LANGUAGE AND LEARNING: The Debate between Jean Piaget and Noam Chomsky—Massimo Piattelli-Palmarini, Ed. The originators of two of the most influential schools of contemporary cognitive studies met, along with other distinguished scientists, for a three-day symposium in 1975. This book includes the edited transcripts of the debate as well as afterthoughts and comments on the debate. Harvard U Pr, 1980, 409 p., \$20.

MALIGNANT NEGLECT—Joseph H. Highland, Marcia E. Fine and Robert H. Boyle. Written by Boyle and staff members of the Environmental Defense Fund to show which chemicals are cancer-causing agents, how serious they are, what carelessness and neglect have done and are doing to increase cancer rates. Suggestions are made as to what individuals can do to protect themselves and generations to come. Originally published in hardback in 1979. Vintage Bks(Random), 1980, 275 p., paper, \$3.95.

MEXICAN MASKS—Donald Cordry. The author's quest was to preserve and record Mexican masks, their significance and their links to their Pre-Columbian ancestors. Beautifully illustrated. U of Texas Pr, 1980, 280 p., color and b&w illus., \$39.95.

A NATURALIST ON A TROPICAL FARM—Alexander F. Skutch. For nearly 40 years the author has lived on a farm in Costa Rica where he has attempted to preserve as much of the natural environment as possible. He tells of the birds, horses, trees, flowers and insects of his surroundings. One chapter follows the changing seasons of a tropical year and describes their influence on the vegetation and animal life. Charming drawings by Dana Gardner. U of Cal Pr, 1980, 397 p., illus., \$16.95.

THE PINE TREE BOOK: Based on the Arthur Ross Pinetum in Central Park—Russell Peterson. Pines grow worldwide in the Northern Hemisphere and many species have been introduced to North America from their native habitats. This book is primarily an identification guide to pine trees with beautiful color illustrations. Pine trees are discussed in general terms in the introduction. Brandywine(Dutton), 1980, 144 p., color and b&w illus., \$14.95, paper, \$7.95.

SCIENCE IN EVERYDAY LIFE—William C. Vergara. Arranged in question-and-answer format, this book touches on all areas of science using non-technical language to explain scientific concepts. Questions range from "Do insects engage in farming?" to "What is gravity?" Har-Row, 1980, 306 p., illus., \$12.95.

TECHNOLOGICAL TERRORISM—Richard Charles Clark. A study of the extreme vulnerability of our modern nuclear power plants, computers, water systems, liquefied natural gas and other energy systems to terrorist attack. The ready availability of chemical and biological agents that can be used to wipe out whole populations is examined. Devin, 1980, 220 p., \$10.

THERMAL SHUTTERS AND SHADES: Over 100 Schemes for Reducing Heat-Loss Through Windows—William A. Shurcliff. According to the introduction the heat-loss through windows of U.S. houses corresponds to about 300 million barrels of oil per year or about 3 percent of our total annual use of purchased energy of all kinds. Many different kinds of thermal shutters and shades are described in detail. Brick Hse Pub, 1980, 238 p., illus., \$24.50, paper, \$12.95.

UNKNOWN EARTH: A Handbook of Geological Enigmas—William R. Corliss, Compiler. Describes unusual geological phenomena as recorded in geological journals and other journals such as SCIENCE and NATURE. In most cases these anomalies contradict current geological theories. Sourcebook, 1980, 833 p., illus., \$19.95.

THE VIKING WORLD—James Graham-Campbell, foreword by David M. Wilson. The Viking Age began in the last decades of the eighth century and lasted until 1100. Although the time was short, the influence of the Vikings was far-reaching and their impact on Western culture was tremendous. This magnificently illustrated book tells the story of the Vikings, their way of life, their culture and artifacts and their influence on the world. Ticknor & Field(HM), 1980, 220 p., color and b&w illus., \$25.

THE WASTE WATCHERS: A Citizen's Handbook for Conserving Energy and Resources—Arthur H. Purcell. We have to look upon waste as the serious national problem that it is, says the author—a problem that, if left unsolved, will reduce our standard of living and make our lives less enjoyable. Dr. Purcell goes on to describe practical waste-trimming strategies. Anchor Pr/Doubleday, 1980, 286 p., illus., paper, \$4.50.