

book would also be useful to biology teachers. It is filled with simple, and often unique, illustrations of basic physiological processes. The bar-headed goose flying over the Himalaya Mountains, or the heat-radiating properties of an elephant's ear, for example, might just catch the attention of less than enthusiastic students.

I found this to be an interesting and enjoyable book. I would recommend *Why Geese Don't Get Obese (And We Do)* to anyone wanting a lighter approach to animal physiology.

Phillip Eichman
University of Rio Grande
Rio Grande, OH 45674

REVELATIONS

Dancing Naked in the Mind Field. By Kary Mullis. 1998. Pantheon Books (New York, NY 10019). 222 pp. Hardback \$24.00.

 He has often been described as less than traditional, quirky and eccentric. Nonetheless, the self-proclaimed "loose cannon on deck" and 1993 winner of the Nobel Prize in Chemistry, Kary Mullis, transformed the field of molecular biology with his discovery of the universally employed technique for amplifying DNA called polymerase chain reaction (PCR).

Dancing Naked begins with Mullis' account of how he initially derived the idea for PCR during a drive along the California coast in the summer of 1983 while he was employed as a biochemist at the Cetus Corporation. The tone of his writing is friendly and enjoyable as he presents his own excited but incredulous reaction to what appeared to be far too simple a technique for him to be the first to develop.

Throughout the book Mullis uses a funny storytelling tone in describing his experiences of playing with electricity and chemistry as a child growing up in Columbia, South Carolina, his many experiences with psychedelic drugs, and his mind-reading experiences with friends and acquaintances as an adult. Woven throughout this book are components of Mullis' humor, emotion, love for women, his relationships past and present, and an occasional glimpse of his serious side. And yes, there is a small amount of science mixed in. As an example of Mullis' serious side, he describes his frustrations at not being able to obtain interferon, under development at Cetus Corporation at the time but still

years away from being widely used for cancer treatment, to help a friend who eventually died from malignant melanoma.

Any attempt at knowing what to expect from chapter to chapter in *Dancing* reminded me of trying to follow the lectures of the professor (who we have all had) who was incoherent with his delivery but nonetheless managed to tell a good story. For the most part, there are few real transitions between chapter topics presented in this book. The book assumes a short-story format in jumping from one chapter to the next. For example, a short chapter on Mullis' experiences recovering from being bitten by brown recluse spiders is followed by a chapter titled "No Aliens Allowed." You'll have to read the book to find out what this chapter is all about!

In addition to stories from Mullis' past, other topics that you can expect to read about in *Dancing Naked* include random comments on the O.J. Simpson trial and Mullis' perspectives on astrology, global warming, and the possibility of an asteroid impact destroying the Earth. If you approach *Dancing Naked in the Mind Field* expecting to read a technical, fact-filled exploration of how Mullis discovered PCR, you will most certainly be disappointed. If, however, you are interested in a light read containing a random collection of amusing perspectives on science and life according to Kary Mullis, then you will enjoy this book as I did.

Michael A. Palladino, Ph.D.
Biology Department
Monmouth University
West Long Branch, NJ 07764

SEXISM IN MEDICINE

Walking Out on the Boys. By Frances K. Conley, M.D. 1998. Farrar, Straus & Giroux (19 Union Square West, New York, NY 10003). 245 pp. \$24.00.

 Dr. Frances K. Conley provides a vivid account of her medical training, the development of her specialization in neurosurgery, her exemplary practice in the world of white male neurosurgeons, and the years she spent as a tenured faculty member of the Stanford University School of Medicine.

The book is an autobiography with the purpose of exposing to the public the well-kept secret of medical training and practice between males and females in the profession. From a vantage point, after her soul searching

experience of being treated as an inferior person by virtue of her gender, she traced the exciting years she spent at Bryn Mawr, to the miserable years finishing her undergraduate years at Stanford, leading to her acceptance to medical school and breezing through the preclinical curriculum by rote memory, and finally the rigorous clinical clerkship and internship. During her years in medical school, she discovered that the training of a physician tends to be demoralizing and dehumanizing, and that women are treated differently from men regardless of accomplishment. She was not encouraged to specialize in surgery because there are just "no women surgeons," as a male surgery professor declared. Unexpectedly, she found neurosurgery to be an exciting discipline. In short, she became an excellent surgeon, in fact, the first woman neurosurgeon in the United States. She contributed greatly to the prestige of the Department of Neurosurgery with research highly respected by the medical academic community beyond Stanford University.

The pervasive sexism in the medical academic community remained guarded within Stanford University until Conley unexpectedly discovered the appalling evil maneuver of an unqualified colleague who set aside loyalty and friendship for self-promotion and power. As the events surrounding her resignation and the newspaper article she wrote created a shroud of inquiry and suspicion, she accidentally found herself the focus of a tangled "good ol' boys network" scheme to get rid of her. The book gives a riveting and shocking account of how the network elaborately masterminded her resignation. As the medical community and womens' groups expressed concern over the despicable situation, her story became a national sensation that brought a prestigious university under the scrutiny of the press for sexism and sexual harassment.

The book is written in a simple and suspenseful style. The reader is compelled to keep reading until s/he reaches the last page. Conley takes you with her through the full spectrum of her emotional experience. This book should be read by high school students aspiring to the medical profession, pre-med college students, career counselors and university support personnel who advise students, medical students, nurses and hospital personnel. Every medical school administrator should read this book and keep a handy copy on his/her bookshelf or coffee table.

The fact that medical schools have opened the gates to more women is greatly appreciated—however, the conditions of socialization and recognition of female students as equal to males are yet to be addressed. Medical school administrators should review the statement of Dr. Shirley M. Malcolm* (1990) in the context of medical science. . . . “Who will do science? That depends on who is included in the talent pool. The old rules do not work in the new reality. It’s time for a different game plan that brings new players in off the bench.” If women are included in the talent pool, as equal participants and contributors, and not as meaningless fixtures because of their gender, they can be successful.

*Malcolm, S.M. *Scientific American*, (February 1990), p. 112.

Rosalina V. Hairston, PhD
Department of Biological Sciences
University of Southern Mississippi
Hattiesburg, MS 39406

YOUNG SCIENCE

The Human Body. 1998. Barron’s (250 Wireless Blvd., Hauppauge, NY 11788). 96 pp. Hardback \$19.95.



If ever you wanted to know anything about how particular body systems work, this would be a great resource. Each of the body’s systems (digestive, respiratory, circulatory, excretory, locomotive, nervous, reproductive, endocrine and immune) is explained in detail. Chapters on the cell and the senses are also included.

For each topic the reader is presented with information through a general synopsis, the use of well-labeled, annotated drawings of the components, text broken into subtopics including accounts of the organs and related information, interesting trivia sections, as well as “Prevention and Health” tips. For example, the endocrine system chapter starts with a few paragraphs telling in general why the system is important to our bodies. The presentation goes on to show a diagram of the human body with the endocrine system components labeled. Included next is a comparison of the endocrine to the closely related nervous system. The organs of the endocrine system [hypothalamus, pituitary, pancreas, thyroid/parathyroid, adrenal (suprarenal) glands, and gonads] are drawn in detail with labeled diagrams and explanations relating their functions. These are followed by sub-headings about hormones and their

uses, and problems caused when they malfunction. There is no glossary included, however, key words are bold typed and defined within the text, making very technical material more understandable.

This would not be a book to pick up and read through at one sitting. It would be helpful to students in upper middle grades through high school doing research about the human body for a report or to families trying to understand an illness. An illustrated table of contents along with a complete index make this book an excellent resource.

Jeanne Dumbleton
Thomas Fleming School
Essex Junction, VT 05452

A Home by the Sea: Protecting Coastal Wildlife. A New England Aquarium Book. By Kenneth Mallory. 1998. Harcourt Brace & Co. (525 B St., San Diego, CA 92101). 64 pp. Paperback \$9.00.

They Swim the Seas: The Mystery of Animal Migration. By Seymour Simon. 1998. Harcourt Brace & Co. (525 B St., San Diego, CA 92101). 20 pp. Hardback \$16.00.



Since *A Home by the Sea* is a New England Aquarium Book, I was surprised to find that all three examples for protecting wildlife came from New Zealand. In addition to chronicling New Zealand’s efforts to protect its endangered coastal wildlife while recognizing man’s need to share the same environment, each of the three sections gives the reader many facts about animals, accompanied by related photographs. The first section, “How Science Is Helping the Hector’s Dolphin,” tells how scientists have discovered that if pingers are attached to fishing nets, dolphins are kept out of the nets and economical harvesting of plentiful fish can occur. The second section, “Ecotourism and the Yellow-Eyed Penguin,” reports that visitors’ fees from wildlife reserves made into destination locations for tourism, can fund the programs necessary to obtain and maintain the land endangered spe-

cies need. Lastly, in “Little Blue (Penguin) and Grassroots Conservation,” the reader learns how homes built in animal nesting areas can be adapted to allow for the coexistence of the animals and man. New Zealanders “have made it clear that with careful research, attention and luck, it is almost always possible to accommodate the needs of coastal wildlife—and that our lives and the lives of future generations will be far richer as a result.” Although the book has neither a table of contents nor an index to aid the reader/researcher in locating information, it does have clear section titles as well as a glossary. I think this book, which gives some real-world success stories in a very usable format, is a helpful resource for teachers doing a unit on endangered species.

They Swim the Seas was a disappointment to me after using other books by Seymour Simon in my fourth grade classroom. The author reports on the various migrations of plankton, green turtles, herring, tuna, eels, salmon, elephant seals, gray whales and spiny lobsters. He uses his closing paragraph to confirm that the mysteries of animal migration are still mysteries. The absence of a table of contents or index exacerbates the lack of clear organization. Topics are presented in two separate locations within the book. There are no headings to signal a change of subject, and the format varies from one to four pages per topic. Since the writing style assumes a tremendous amount of prior knowledge by the reader, gaining information from this book is limited to the experienced reader. The inclusion of maps would have made the significance of some of the journeys easier to understand, as not all readers know the location of Ascension Island or the Sargasso Sea. Although the illustrations are beautiful and restful, it is not always clear how they relate to the text. While one may enjoy reading through this book with a young child, it would be difficult to use it in a classroom setting.

Jeanne Dumbleton
Thomas Fleming School
Essex Junction, VT 05452

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