

Book Reviews

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PHYSICAL GEOLOGY

Fire Under the Sea. By Joseph Cone. 1991. William Morrow and Company, Inc. (1350 Avenue of the Americas, New York City, NY 10019). 287 pp. Cloth \$25.



If you have remained unaware of the explosion of knowledge about plate tectonics and seafloor spreading in physical geology that has gone on for the last 30 years, this is a book for you. If you already know about these topics, but you are not familiar with the communities residing around the hot springs of the East Pacific Rise, this is still a book for you. If you have remained current in both these fields of study, but you really like a nonfiction book that is as good as any mystery novel, then this is still a book for you. But if you're not the slightest bit interested in human experience, the ebb and flow of scientific understanding, or the development of new and often controversial hypotheses, you should not bother to read this book.

Fire Under the Sea is about more than plate tectonics, seafloor spreading, hot springs and communities based on chemosynthesis. It is about the discovery of one of the most extraordinary environments on Earth. And although each of the preceding topics is discussed in some detail, the real story is about the human experiences that occur when poorly understood areas are explored for the first time. Joseph Cone does a stunning job of enthraling the reader about dives aboard the submarine, *Alvin*, by introducing all the principles associated with the dive.

Written for a general audience, the book is equally interesting for teachers and students of biology. In a way that is guaranteed to interest anyone who wants to know how science is really done, Cone writes as if the reader and he are both at the scene when the discoveries and arguments occur. The author maintains this feeling by employing a smooth writing style combined with a keen sense of what is important to the presentation.

Accuracy is a major strength of Cone's presentation. Eleven pages of notes listed by chapter, page and key words are presented at the back of the book. An additional 11 pages of works are cited. Finally, 71 people were interviewed and the conversations with these people make up the bulk of the text. In short, the attention to detail and accuracy are two hallmarks of the book.

Teachers who are interested in giving their students insight into the history of science and how new theories emerge would do well to assign this book for required reading. Further, if you want your students to understand how science proceeds in fits and starts, the book provides some excellent examples. I always ask students to read a nonfiction science book for pleasure, and this one will serve that assignment admirably.

There are two primary strengths of this book—humanness and completeness. Without the human quality that the author captures so exquisitely, this book would be nothing more than a dry and obscure volume to clutter the bookcase of an oceanographer. Because the characters are brought to life by the carefully chosen conversations and ideas presented, the book is lifted from the dull to the exciting. All of us wish we could be present for some important discovery, and this book allows us the opportunity to come as close as most of us will ever get.

The 18 color illustrations that are bound into the middle of the book are very good and have excellent captions. However, the paucity of illustrations is the primary weakness of the book. I should think that the author would have been able to obtain more photographs—especially of some of the creatures living around the hot springs. Otherwise, there is very little for one to complain about.

There have been few books written about the hot spring communities of the Pacific Ocean. Among those that I have seen, this is by far the most interesting account. If for no other reason than to vicariously revel in the quest of others who have done what

for so long seemed impossible, you ought to read this book.

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EDIBLE WILD PLANTS

Plantworks: A Wild Plant Cookbook, Field Guide and Activity Book for the Novice and Naturalist. By Karen Shanberg and Stan Tekiela. 1991. Adventure Publications. (Box 269, Cambridge, MN 55008). 159 pp. 15 by 20 cm. Paper \$12.95.



This innovative and user-friendly resource book on edible wild plants is part field guide, part cookbook and part activity book. Fifteen wild plants common in the continental U.S. are featured, including dandelion, oak, wild grape, wild rose, common plantain and cattail. The natural history of these 15 plants is examined, and the plants are used in 54 recipes. The book concludes with more than two dozen plant nature activities.

The recipes are given first and fill about half the book. They are grouped by preparation method: skillet, oven, stove or no cooking required. Dishes include lucky red clover fritters, acorn pancakes, sweet basswood jelly, fresh nettle fettucine, sumac summer refresher, pickled purslane, hearty curled dock soup and cattail "corn" on the cob. Each recipe is clearly marked with cost, preparation time, season when the plant can be collected and where it can be found, and the pages where natural history and activities linked to the plant are discussed. Typical cooking measures are used, e.g. teaspoons and cups. There is an emphasis on positive plant identification and conservation when collecting wild plants, such as collecting only one in 10.

The natural histories are two pages per plant and include color photos, line drawings and text for identification along with habitat descriptions and recipes featuring the plant. The descriptions are not technical but