

tion, coeditor William Childs continues the theme of American books as "neglected ambassadors," explaining that the work at hand has its most immediate historical basis in the commission given by the United States Information Agency (USIA) to the Reid Foundation to examine the U.S. "book gap" question and suggest solutions. The results of the Reid Foundation Task Force findings are incorporated into the seventeen essays by eleven contributors that constitute *American Books Abroad*. Childs and Donald McNeil are major contributors to the collection, which is divided into six parts.

Part 1, "The American Book World," records the recent history of the American publishing industry and describes current activities of that industry, both domestic and international. As a free-enterprise or market-driven system, the specific objectives of American foreign policy are, of course, not being met. Cultural and legal (including copyright) complications abound for all concerned, with piracy taking a tremendous toll. Part 2, "Economics and Finance," describes the American agencies and organizations that have facilitated the export of books, cites such problems as currency barriers (specifically, the lack of dollars), and points out the need for low-priced books for Third World readers. Part 3, "Introducing Books to Their Markets," discusses the value of book reviewing tools, book fairs and exhibits, and donations and gifts. Part 4, "International Education and Market Information," underscores general American ignorance of overseas markets and proposes courses and seminars for prospective traders to help overcome this obstacle and to provide for meaningful market research in the field. Part 5, "Institutional Responsibilities," weighs the relative merits of public versus private efforts in supplying American books abroad and reviews the preeminent role of the USIA in this endeavor. Questions pertaining to suitability of content are raised, and procedures for selection of materials are examined, with the recognition that the USIAS understandably acts in accord with the dictates of "national purpose." Part 6, "A National Policy," details the

book publishing/distribution activities of the United Kingdom, the Soviet Union, France, and Spain and calls for appropriate action by the U.S. government.

Throughout the maze of programs, agencies, and commissions that have—with greater or lesser success—served to facilitate the distribution of American books abroad, the points elaborated are very clear: (1) A multitude of obstacles and complications conspire to impede the distribution of American books overseas, especially in Third World countries; (2) The United States is consequently losing an intellectual and ideological war with the Soviet Union; and (3) Corrective action by the U.S. government is urgently needed.

The arguments adduced are convincing, and one is left with the distinct impression that the "war of ideas" potentially waged via the export of American imprints has not been a high priority of American foreign policy. Given the massive economic, legal, and cultural obstacles described, it seems seriously debatable that the objectives set down in the present study will ever be realized. And, indeed, the extent of the USIA's role in disseminating works deemed appropriate to American "national purpose" will continue to be suspect. The questions of intellectual freedom and censorship are close to the hearts of librarians and many others as well, and propaganda even in the national interest will not likely find much support in the library community, as a recent editorial ("Propaganda, the USIA, and ALA," *Library Journal*, Dec. 1986) suggests.

This collection of essays is informative and readable, though at times repetitive. It is a well-documented and useful study of the problems facing the export of American imprints.—Charles E. Perry, *Central College Library, Pella, Iowa*.

*Toward Foundations of Information Science*. Ed. by Laurence B. Heilprin. White Plains, N.Y.: Knowledge Industry for the American Society for Information Science, 1985. 232p. \$34.95 (ISBN 0-86729-149-4). LC 85-12612.

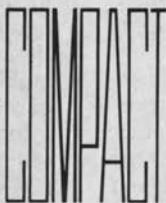
As described in its foreword, "This volume is based on a series of papers delivered in four consecutive annual sessions

(1978 through 1981) of the Special Interest Group on the Foundations of Information Science . . . at Annual Meetings of the American Society for Information Science." It is therefore a diffuse collection of chapters, despite the efforts by the editor to weave them into an integrated fabric. Each of the four sections of the book consists of the papers presented at one annual session and thus focuses on the theme for that session. In each case, the issues discussed are concerned with the relationship between the theme topic and information science:

1. The place of information theory
2. The place of artificial intelligence
3. The place of the recipient
4. The place of interpretation in observation and communication

The relation of the first theme topic, information theory (read *communications theory* in the sense of Claude Shannon) to information science has been of continuing theoretical concern. Fundamentally, the Shannon theory is based on measurement of a single aspect of data—its statistical

properties (i.e., signal probability)—and a single function—data transmission. Its most effective application has been to design coding systems for efficient and reliable data transmission in the context of noise and other sources of error. Efforts to apply it to other contexts, such as the psychology of learning and interpersonal communications, have been purely descriptive and ineffective. Does this theory apply to more complex functions, such as data retrieval or analysis? And can it be extended to deal with other than purely statistical properties? The papers by Suppe, Barnes, Zunde, and Heilprin—presented in this first theme area—attempt to deal with these questions. In particular, Heilprin draws the analogy between the Shannon measure and the physical entropy that results from the similar forms of the respective equations. Suppe uses scientific information as the frame of reference for concluding that functions of selectivity and adaptation are critical but are unrepresented in Shannon's theory; in a later paper in this same volume, Suppe



**Concentrated. . . Condensed. . . Compact. . .** No matter how you say it, smaller is better. People want more information in a smaller package.

And that's what you get with **Biological Abstracts® in Microform** as your life sciences reference tool. Delivering the scope of coverage you've come to expect from BIOSIS®, **BA in Microform** provides you with rapid access and saves a lot of shelf space. In fact, you can store 18 years' worth of **BA in Microform** in the same amount of space taken up by just one year of the printed publication.

See for yourself. Contact BIOSIS Marketing Section, 2100 Arch Street, Philadelphia, PA 19103-1399 USA. Telephone (215) 587-4800 worldwide or call toll free (800) 523-4806 (USA except AK, HI, PA). Telex: 831739.

#### **BIOLOGICAL ABSTRACTS IN MICROFORM**

BIOSIS is a not-for-profit organization serving the biological community since 1926.

**BIOSIS** and **Biological Abstracts** are registered trademarks of BioSciences Information Service.

further argues that the "noise" in more complex information systems is not statistically independent of the signals but instead is tightly bound to them; the result is that Shannon's methodology for treatment of noise is not applicable either. In agreement with the view that Shannon's theory is adequate for information science, Barnes proposes a generalization of Shannon's measure to accommodate uncertainty in the signal probabilities. Zunde contrasts that measure with other theoretical constructs—such as Zipf's law—based on the principle of least effort.

Section 2 turns to artificial intelligence. Suppe continues his discussion from Section 1 by examining adaptive systems as examples of artificial intelligence, especially as means for dealing with complex sources of noise and error. Rieger follows that by considering the adaptive mechanisms involved in interpersonal communication, and Hayes-Roth examines the specific example of "ambiguity" in communication and in pattern matching as the central tool in information retrieval. Heilprin concludes the section on artificial intelligence by proposing quasi-mathematical models of domain mapping to describe those problems.

Section 3 turns to the recipient of information and examines different contexts, including formalized logic and aesthetics, in which user interpretation becomes the means for handling noise, ambiguity, and pattern matching. Section 4 continues that theme, but considers it in the larger frame of reference—the methodologies for observation and interpretation, as means for formalizing both.

Information science is a diffuse field, with a diversity of interpretations. This volume adds an additional set of perspectives, so it has that value at the least. It also reiterates some of the more common interpretations, such as that of Shannon's communication theory, but without adding much to our knowledge of them. To that extent, therefore, it simply repeats what has been previously presented.—*Robert M. Hayes, Graduate School of Library and Information Science, University of California, Los Angeles.*

**Garoogian, Rhoda, and Andrew Garoogian.** *Careers in Other Fields for Librarians: Successful Strategies for Finding the Job.* Chicago: American Library Assn., 1985. 171p. paper, \$12.95 (ISBN 0-8389-0431-9). LC 85-15800.

Aside from the lucky few who received a calling at the age of six or seven, who can refrain from wondering at some point in their lives if they have selected the right career? Librarians are not unique in experiencing that reflection nor are they unique in deciding to change careers as a consequence.

The Garoogians' book is a guide for those who have decided to move out of library science and into another field. With general advice and specific practical details the authors confront the obvious problem of applying one's skills and training in librarianship to requisites and job descriptions in other fields. Their method is to consider numerous job descriptions and to identify and "translate" the skills in demand into the strengths developed by librarians.

The Garoogians frequently refer to similar manuals and include a three-page bibliography of current books and articles on the topic. Predictably, they place considerable emphasis on the information needs of other sectors of society and the obvious information strengths of librarians. Unlike other manuals, such as *Careers in Information* by Jane F. Spivack (White Plains, N.Y.: Knowledge Industry, 1982), *Careers in Other Fields for Librarians* recognizes and promotes the qualities that librarians possess in addition to information skills. The Garoogians adapt a seven-page table published by the American Library Association entitled "List of Professional Library Tasks" to equate job responsibilities in nonlibrary fields with traditional library skills. They they apply the comparisons to specific job descriptions such as "Political Research Analyst for a State Legislator."

A major portion of the book relates library skills and experience to the information and management needs of four areas of opportunity: business, government, education, and entrepreneurship. Within each area the authors analyze dozens of