Greene describes how he uses analogies from human anatomy and personal health to draw parallels to how we care for books. Greene makes an important point about preservation education: metaphors and examples are an effective teaching method, a way to make clear that preservation is everyone's concern. Because preservation education is more than presenting clever programs, Merrily Smith's essay on evaluating the effectiveness of an educational program will interest those who would like to increase their skills in program assessment.

The final four chapters are devoted to preservation education programs for specific types of libraries. Each essay brings a new perspective on program content, a new approach to teaching, or a different audience to consider. The programs developed for school children show simply that damaged books take away the joy of reading. In the chapter on public libraries, readers will find several creative methods for increasing preservation awareness among community members, such as sponsoring a workshop on book-repair techniques led by a local conservator or an overnight 'lock-in' for Girl Scouts earning their Books badges. The effect of such successful programs goes beyond their initial audience to include the families and friends of those who attend the program. As the reader reaches the chapters on preservation education in academic libraries, special collections, and archives, the unstated premise of this book becomes clear: there are a variety of audiences for preservation education and an equal variety of methods for reaching them.

Promoting Preservation Awareness in Libraries succeeds on several levels. First, it is a sourcebook of ideas that all librarians can use to teach preservation, whether to staff members who process and shelve library materials or to library patrons. Useful ideas for any situation can be found throughout the book, not just in chapters describing specific types of libraries. The book also affirms the benefit of preservation education to the library's entire collection; preservation education should not be limited to special materials such as local history. Readers of this book

will find inspiration in the fact that all types of libraries currently include preservation education as part of their mission. And finally, *Promoting Preservation Awareness in Libraries* demonstrates that library patrons are eager to receive this information, especially when they also understand the benefit for their personal collections.

To many librarians, preservation conjures images of artisans repairing eighteenth- and nineteenth-century books in the basement workshops of large research libraries. However, Drewes and Page demonstrate that preservation is a much richer, broader field. Readers of this book will see that preservation enables all librarians—even those not typically associated with preservation efforts, such as school media specialists or public librarians—to teach their patrons and staff common sense and easy practices that extend the useful life of their collections.—Winston Atkins (winston atkins@ncsu.edu) Preservation Librarian, North Carolina State University Libraries, Raleigh, N.C.

Understanding Information Retrieval Interactions: Theoretical and Practical Implications. Carol A. Hert. Greenwich, Conn.: Ablex Publishing, 1997. 150p. \$39.50 (ISBN 1-56750-306-3).

Understanding Information Retrieval Interactions is a short, important book. Author Carol Hert distills her dissertation work, treating it in the larger context of theory development. She begins with a description of three "streams" of information retrieval (IR) research. In the first stream, match paradigm research focuses on the relationship of user terminology to document surrogates. In the second, advocates of cognitive psychology and communication models use experimental methodology to focus on users of IR systems, but tend to create static models of user behavior. Hert's work is part of a stream, naturalistic processthird oriented approaches, in which researchers investigate real users in real situations rather than isolating and manipulating particular cognitive factors.

Hert observed 30 online catalog users running searches of their choice at Syra-

cuse University Library. She gathered data from videotapes, transaction logs, interviews, and searchers' spoken thoughts. General descriptions of the search processes were derived from the data without using any preconceived categories. The data did not support any one pattern of behavior, but Hert discovered that all online catalog searches have three components: the goal of the search, the searching, and the termination of the search. Surprisingly, the goal of the search (what the respondent intends to accomplish during the interaction) did not change during the search. Hert's principal finding was that search behavior is "situated," that is, it cannot be predicted, but searchers use various elements of the situation in which they find themselves to decide what to do. Hert points out that information retrieval in a computer database such as an online catalog occurs within a larger information-seeking process. She acknowledges that her results may not apply to all IR environments, but would be transferable to college-level students searching multi-file bibliographic databases where the interactions are based on academic requirements.

Hert's approach is compelling. Her masterly outline of the streams of research, with charts that compare individual research results, are alone worth the price of the book. Her emphasis on relating theory to data is refreshing, although an explicit discussion of criteria for evaluating competing models would have been welcome. Her discussion of the transferability of her results is humble and lucid; would that other researchers were so honest and careful! Hert amply demonstrates the value of naturalistic studies. The idea of situatedness is at once obvious and subtle: of course, elements of a given situation influence behavior, but further research is needed on exactly what elements of the search situation affect what decisions and how they do so.

Hert defines "behavior" and "situation," but not "information," "information retrieval," and most crucially, "interaction." Thus, while some of Hert's concepts are new and challenging, much work remains to clarify them. What exactly is an IR "inter-

action"? How is it related to a "search" or a "search session"? Is the "goal" part of the online catalog interaction, or part of the larger information-seeking process? Hert mentions three particular activities in the context of cues interacting: deciding on a system or file to use, choosing terms, and choosing an index or type of field. Are these key decisions every searcher must make? If so, should they be incorporated into a model of searching?

Most of Hert's argument is aimed at researchers, to make them aware of the value of naturalistic work and to move the field forward by integrating results into a coherent picture of IR. According to Hert, "Research should be pursued which identifies the range of resources (or situational elements) available to an actor in a particular situation. Additionally, we need to know how and when people use these resources. Finally, we can investigate the types of "reflections" in which people engage to manage this uniqueness" (p. 116).

Practitioners, in particular system designers, are the author's secondary audience. Market forces and customer demand for new features, such as system integration with the World Wide Web, influence system design more than research on user interactions does. System designers and librarians who are in a position to influence system design would benefit from familiarity with research on information retrieval. With its focus on real users in real situations, Hert's research is a good starting point.

This book's shortcomings are chiefly in form rather than content. Readers will appreciate that she omits the technical detail that makes most dissertations difficult to read, but for an attempt to move the field forward, the writing is not particularly colorful or exhortative. Instead, there is considerable repetition as Hert lists what she is going to write about before she writes about it. Some of the format problems may disorient attentive readers: the wording of references to section headings within the text is not always parallel to the actual section headings. References within the text are in author/date style, but in the bibliography, the works of an author are arranged alphabetically by title, rather than by date.

As an attempt to integrate IR research, Understanding Information Retrieval Interactions prompts many questions. How do the goals of searchers relate to their searching and stopping behavior? Do goals and search behavior vary in different IR environments such as public versus academic versus special libraries? How does searching vary between manual versus machine-readable files? Files of surrogates versus full-text files? Hypertext versus flat files?

While it is good to have some variety of outlooks in any discipline, the lack of consensus on crucial issues is a problem. How can we build on each other's work if we use different terms and different frameworks? What are appropriate definitions of "information need" or "goal" or "object of the search"? What is the right unit of analysis? What are appropriate levels of change for "interaction"? Assuming that agreement and consensus are good things, how can we facilitate them? It isn't enough to cite each other's work when relevant. In conversation, Hert has suggested that it is time for a conference of researchers with similar interests and values but slightly different approaches to the same problems. My fervent hope is that *Understand*ing Information Retrieval Interactions will help forge agreement about what is missing in search behavior research and what needs to be done.—Dee Michel (damichel@facstaff.wisc.edu) School of Library and Information Studies, University of Wisconsin-Madison.

Catskill: An Interactive Multimedia Course on AACR2 and MARC. Mary Mortimer, Karen Lochhead, and Margaret Hyland. Learning Curve and DocMatrix, 1996. \$750 U.S., single user; \$450, consortium; site license, \$1125-\$1495, depending on the number of users.

Catskill is a clever, do-it-yourself CD-ROM course on AACR2 (Anglo-American Cataloguing Rules, 2d ed.) and the MARC (MAchine-Readable Cataloging) format. As integrated library

systems develop in all types of libraries—requiring good bibliographic records in MARC format from staff who are not always well-trained in cataloging codes and in MARC—there is a definite need for this type of interactive learning tool. Catskill can serve as a basic course for a novice cataloger or as a refresher for an experienced librarian in need of a skills update. Versions are available for U.S., British, Canadian, and Australian MARC.

Librarians, library staff, and a library science student tested the demonstration disk, which provides a fairly complete introduction to Catskill's content and format, though it lacks the depth of coverage of the full version. The library science student, having recently completed a cataloging course, found the beginning modules tiresome because of the remedial material regarding MARC fields 100 and 245. However, the student found the advanced sections quite useful. Thus, for library science students, Catskill would be more effective as a supplement to a cataloging class rather than as a stand-alone training tool.

Sterner tests came from a cataloger and a staff member at the University of Illinois Library, where cataloging is decentralized and training is a critical issue. The cataloger noted that Catskill presented the concepts of AACR2 very clearly, although some of the details required in academic library cataloging did not appear in the demonstration disk and could not be reviewed. The product allows the user to bypass consultation of AACR2 rules— this could be an asset or liability, depending on the users. The staff member, who did not have prior formal cataloging training, found Catskill very thorough because it forces the user to learn cataloging vocabulary and provides a helpful glossary.

As a proud member of the class of librarians that Michael Gorman calls "lapsed catalogers," I was keen to see how easily I could upgrade my skills in cataloging and MARC tags. I found the notebook format somewhat tedious to look at after a while, but was pleasantly surprised at the complete array of concepts and issues that are represented here. Uniform