tailoring digital libraries to a community of users with the need to construct a vast, interoperable, global digital library" (168).

The final three chapters suggest ways of meeting the challenges of the future, including the possible implementation of the GII. Chapter 7, "Whither, or Wither, Libraries?" is an examination of the issues for libraries, and chapter 8, "Acting Locally, Thinking Globally," is a similar discussion of successful, contributing digital library initiatives. In chapter 9, "Toward a Global Digital Library: Progress and Prospects," Borgman speculates on what may lie ahead, concluding, "Among the greatest challenges faced in realizing a GII is to scale the present-day Internet to a much larger, more complex, and more diverse information infrastructure that will support many more users" (267). That is a sobering thought for readers who believed the Internet was too much to handle.

More than forty pages of references document the author's sources and furnish a bibliography of relevant material for the reader interested in deeper exploration of these themes. The listing is international and draws on the literatures of several disciplines, including computers, human behavior, social science, telecommunications, and more, in addition to the familiar areas of library and information science. While welcome, it lacks the usual formatting, such as italicized titles or indented lines, and is hard to read and use. The book closes with a detailed index.

From Gutenberg to the Global Information Structure is highly recommended to all its potential readers—librarians and information specialists, technologists, network specialists, policymakers, scholars, publishers, and other information industrialists. Borgman offers a well-focused assessment of likely areas of contention and problems in the evolution of a GII, and wisely eschews giving any easy answers. Instead, she asks that, while we may not know exactly where we are going, we pay attention to what we already have learned about where we are, and use it in deciding how we might set about achieving new, productive results. That shouldn't be too much to ask.—*Sheila S. Intner (shemat@aol.com), Simmons College Graduate School of Library and Information Science, Boston*

The Future of Cataloging: Insights from the Lubetzky Symposium, April 18, 1998, University of California, Los Angeles. Ed. Tschera Harkness Connell and Robert L. Maxwell. Chicago: ALA, 2000. 184p. $65 (ISBN 0-8389-0778-4). LC99-87247.

This slim volume, like Gaul, is divided into three parts: "The History of Cataloging and the Contributions of Seymour Lubetzky," "Current Research in Cataloging," and "The Future of Cataloging." A small number of pages is devoted to expected and appropriate sentiments expressed for the honoree, who was about to celebrate his one-hundredth birthday at the time the symposium was held. These include a photograph of Lubetsky receiving an honorary degree from the University of California at Los Angeles (UCLA), excerpts from letters pertaining to his career, commentaries on his works, a partial bibliography of his publications, and a clever poem by one of his colleagues. Fifteen authors, including the honoree, contributed fourteen papers (the first is a collaboration of Lubetzky and Elaine Svenonius). One could easily anticipate the authors represented here, since most are associated with UCLA: Marcia Bates, Michael Carpenter (a UCLA Ph.D., now teaching at Louisiana State University), Michèle Cloonan, Sara Shatford Layne, Gregory Leazer, Svenonius, Barbara Tillett (also a UCLA Ph.D., now director for the Integrated Library System at the Library of Congress), and Martha Yee. The rest are closely associated with cataloging or Lubetzky: John Byrum, Allyson Carlyle, Maurice Freedman, Michael Gorman, Michael Malinconico, and Margaret Maxwell. Together, they cover a broad spectrum, though not all, of the theoretical territory in the world of cataloging.

Part 1 consists of three chapters. The papers focus on Lubetzky and the origins of Anglo-American cataloging: "The Vicissitudes of Ideology and Technology in Anglo-American Cataloging since Panizzi" by Lubetzky and Svenonius; "Seymour Lubetzky, Man of Principle" by Gorman; and "Musings on Cataloging and Information Science" by Cloonan. Lubetzky and Svenonius highlight the two elements guiding our cataloging traditions—the objectives of the catalog, which Lubetzky reinterpreted, based on the turn-of-the-century statement by Charles A. Cutter, and technology. Gorman, as always, provides readers with a literary delight as well as a piece worth reading for professional reasons. He bridges the gap between Lubetzky's adherence to the principle of authorship and its misinterpretation as being the same as main entry. The book is worth buying and reading for this chapter alone. Cloonan discusses the ideas of Vannevar Bush and the similarities and differences from Lubetzky's work in a chapter that opens the way to deeper exploration of the world of digital information, expanded in subsequent papers in the book.

Part II contains five chapters: "Modeling Relevance in Art History" by Layne; "Creating Efficient and Systematic Catalogs" by Carlyle; "Main and Added Entries" by Carpenter; "Lubetzky's Work Principle" by Yee; and "Applying the Concept of the Work to New Environments" by Leazer. Although all five illuminate important aspects of research in areas in which Lubetzky pioneered study, Yee's paper is by far the most intriguing. After giving a

thorough and fascinating report of her research into certain characteristics of main entry and the works they represent, she summarizes: "One of Lubetzky's gifts to library users who seek particular works was his explication of the work principle, which has the potential to allow us to design OPACs [online public access catalogs] that meet the cataloging objectives better than any catalogs we have ever seen before. The generations of library leaders that followed Lubetzky dropped the ball, however, and allowed the development of OPACs that impede the user who seeks particular works much more than the card catalog ever did" (102). That should give pause to the people who design online catalogs and, if they are made aware of this and other studies, prompt them to begin thinking of catalogs as intellectual rather than mechanical devices.

The third and final part consists of six chapters: "The Ideology and Technology of Cataloging at the End of the Millennium" by Freedman; "Cataloging Virtual Libraries" by Malinconico; "World Wide Web Opportunities in Subject Cataloging and Access" by Bates; "Cataloging at Crossroads: Preservation and Accommodation" by Byrum; "Guidelines for a Future Anglo-American Cataloging Code" by Margaret Maxwell; and "Current Activities in Cataloging Code Revision" by Tillett. Again, each of these papers is worth time and thought. They move from the theoretical plane to the practical, describing potential changes to the Anglo-American Cataloguing Rules (AACR) in the context of goals to be achieved and the new environment in which a cataloging code must function.

The book is well edited and simply, but neatly, formatted. Editors Connell and Maxwell did not contribute original papers to the volume, but their work is evident in the smooth flow of language and lack of errors. Notes at the ends of chapters offer some material for subsequent follow-up, though references to AACR abound. Unfortunately, the print is small and the margins narrow, indicating that the book was not intended to withstand heavy use or be rebound after many readings and rereadings. More is the pity, because this book is worth understanding by the masses—myriad practitioners working with online catalogs, which remain the library's basic tool for patron service.

Because the core of the text is focused on research, this book promises to have an active, useful life for the foreseeable future. It will always have historical value and be of interest for a while for its prognostications; but the likelihood that practical payoffs from the research reported here will take years to realize means that the influence of the Lubetsky Symposium should remain fresh and vital for quite some time.—*Sheila S. Intner (shemat@aol.com), Simmons College Graduate School of Library and Information Science, Boston*

Progress in Visual Information Access and Retrieval. Ed. Beth Sandore. *Library Trends* 48, no.2 (fall 1999): 283–524. Champaign: University of Illinois Graduate School of Library and Information Science, 1999. Single issue, $18.50 (ISSN 0024-2594).

Sandore's stated goal in this compilation of papers is to present a diverse audience "with a current perspective on the development of visual information retrieval and access tools" (283). She succeeds admirably in accomplishing this goal, providing not a single perspective but rather several perspectives on a variety of issues. The authors of the papers come from different backgrounds, encompassing both library science and computer science. In the past, the library science approach to providing access to images has concentrated on "concept-based" analysis of images that relies on textual terminology usually assigned by human indexers. The computer science approach, on the other hand, has concentrated on "content-based" analysis that relies on automated processing of the images themselves. It is good to see in this compilation that most of the authors now view the two approaches to image analysis as complementary rather than as an either-or choice.

The three papers in the first section, "Foundations of Access to Visual Information," are devoted to the problems of access to images from three different perspectives. Hsin-liang Chen and Edie M. Rasmussen, in "Intellectual Access to Images," describe briefly the tools currently available for providing intellectual access to images and the contexts in which these tools are being used. P. Bryan Heidorn, in "Image Retrieval as Linguistic and Nonlinguistic Visual Model Matching," explores the complexities of visual perception and memories and describes ways in which systems might be designed to assist users in retrieving images that match the mental models of the images they are seeking. Heidorn focuses on users who have mental models of the images that they are seeking, but does not address the needs of users who may be seeking images because they do not know what something looks like. In "Computer Vision Tools for Finding Images and Video Sequences," D. A. Forsyth concentrates on automatic tools for providing access to images, describing their current limitations and suggesting ways in which these limitations might be overcome.

The second section, "Implementation and Evaluation," is richer in content than its title might imply. The papers in this section are not simply of the show-and-tell variety, but rather incorporate thoughtful analysis of the often-complex issues surrounding access to images. Practical guidance may be found here, but always in the context of theoretical issues and users' needs. Teresa Grose Beamsley, in