

America) to illustrate how public and corporate sector policy regulates radio, television, and movies.

Although Lacy's comfort in his knowledge of the communication industry, particularly with regard to interactions between publishing and other media, is in evidence throughout this work, there are several important shortcomings. Without any explanation, much of the corpus of recent writings in communication studies, whether by media critics (such as Ben Bagdikian or Herbert Schiller) or researchers and critical theorists, has been given little attention in the construction of the author's arguments. This is particularly ironic given their focus on critiquing media monopolies, power, and hegemony. Also, in his discussion of computer-based communication, Lacy gives scant attention to the impact of networked communication in general and of the Internet in particular. Given the breadth of recent literature in this area, his arguments are somewhat constrained by his focus on a relatively limited range of information technologies.

Finally, Lacy's thesis on the history of communication in society rests on his interpretation of the idea of progress. As useful as his work is for understanding the development of communication in Europe and the United States, it is less relevant to understanding communication systems in other cultures. Early on, he engages in a troubling discussion in which he distinguishes between oral and written cultures. "In oral societies," Lacy asserts, "only a few works could be so frequently performed, like those of Homer, as to acquire a more or less stable and recognized identity. It would be difficult to conceive of an extensive body of separate, individually recognized works in an oral culture. Writing made possible the existence of many hundreds, even thousands, of identifiable works, fixed in form, usually of identifiable authorship, and

self-consciously created in recognized genres."

Although society at large has clearly benefited from the transcribed narratives, tales, and histories of oral cultures, along with other ways of preserving and communicating culture (through art, music, and other forms of expression), Lacy's contention undervalues the presence of sophisticated systems of communication among diverse cultures by placing a higher premium on the written record.

This last point has two consequences. First, toward the end of the book Lacy expresses grave concerns over the "information disenfranchised," arguing a widely held belief that many people—even whole societies—are information poor because they lack access to available information within the mainstream of communication systems. (Alternatively, resolution of this dilemma may begin with analysis of such populations through a different lens, one that is focused on understanding the nature of their methods of communication.) Second, the gigabytes of new and emerging computer-based technologies are proving to have a much greater capacity than print to accommodate different forms of communication among cultures, particularly where such cultures rely on oral or visual transmission of knowledge.

At the end of his book, Lacy writes, "Successive advances in communications technology and skills have given us an almost inconceivable power both to master and shape reality and share the capacity benignly throughout society. How we use that power and how broadly we share it will depend on our wisdom and will." Lacy has, in the end, contributed to our conversation on this important issue.—*William C. Welburn, University of Iowa, Iowa City.*

Reilly, James M., Douglas W. Nishi-mura, and Edward Zinn. *New Tools for Preser-*

vation: Assessing Long-Term Environmental Effects on Library and Archives Collections. Washington, D.C.: Commission on Preservation and Access, 1995. 35p. \$10, alk. paper. (ISBN 1-887334-46-7.)

In this work from the combined authority of the Image Permanence Institute (IPI) and the Commission on Preservation and Access (CPA), the authors propose a new, detailed, and, with important qualifications, more precise means by which temperature and relative humidity in libraries and other collections-holding institutions may be measured, recorded, and interpreted. The procedures and explanations are clearly presented, but a knowledge of chemical reactions is required for a full understanding. The accompanying figures, tables, and charts are necessary supplements to the text and, on the whole, are understandable. Perhaps of minor significance, but noticeable to the reader familiar with the preservation literature, is the positive tone taken by the authors; they speak in terms of change toward improved conditions rather than merely recording the negative.

The two new concepts in *New Tools for Preservation* are the preservation index (PI) and the time-weighted preservation index (TWPI). A collection area's PI, the temperature and relative humidity (RH) at any particular moment, is given a value in terms of years for the expected life span of any organic, "short-lived materials" such as acidic paper or acetate film. The life span is determined by the point at which the PI temperature and PI humidity lines meet on a chart. This process follows that described in the 1994 CPA publication by Donald K. Sebera titled *Isoperms: An Environmental Management Tool*. Recognizing that storage conditions fluctuate, the PI values are recorded over a period of time (ideally a year) and are averaged to arrive at the TWPI. It is the TWPI that reveals the life expectancy,

in terms of chemical deterioration only, for any organic material stored in the location from which the readings are taken. The device developed for measuring, recording, and displaying the four factors of temperature, humidity, PI, and TWPI is the preservation environment monitor (PEM). The procedure is much the same as measuring, recording, and averaging environmental conditions using a thermometer and a hygrometer, with the exception of the value of years assigned to the readings. This new means for monitoring environmental conditions is meant to be less cumbersome than using the older methods, with more precise, "bottom-line" data made accessible.

Although most of the procedures and results are evident to someone familiar with the effects of temperature and humidity on library materials, understanding some aspects of the authors' recommendations requires more than a passing knowledge of chemistry. Some of the obvious questions raised in the text can be answered only in terms of more complex chemical processes. An example of such a question is how a life span in numbered years can be assigned to an object just by knowing the average temperature and humidity of the location in which the object is stored.

Appendix II is very helpful for a more detailed explanation of how these life spans were determined using reaction rates from accelerated aging tests. It is stated that one need not be an expert to understand the TWPI concept, but considering that communication of these procedures is one of their stated goals, is it possible to communicate the concept accurately and field questions from an audience without having further expertise? If these concepts cannot be adequately presented, an administrator may be likely to allow environmental conditions along the more liberal and controversial guidelines put

forth by the Smithsonian study (Ellen McCrady, "Temperature and RH Guidelines Challenged by Smithsonian," *Abbe Newsletter* 18:44, 1994).

The assignment of precise years of life for a given set of environmental readings could be easily misread or misunderstood. One cannot state that a book housed consistently in an area of 72 degrees Fahrenheit with an RH of 50 percent will have a useful life of thirty-three years, even though this is the PI value given for these readings on the chart. The authors correctly point out that PI is "general" and "is not meant as a predictor of the useful life of any object." Would an administrator or casual listener at a presentation catch this qualification? The temptation exists to hold these PI and TWPI values in years as absolutes.

There are some other very important qualifications described in *New Tools* regarding the PI values. These values are assessed only for "short-lived" materials such as acidic paper and acetate film, although as noted, alkaline paper would benefit from improved conditions. Further, the value is determined by chemical deterioration alone. Even though the study is concerned with environmental conditions, mold growth and vermin infestation are not considered here. Certainly there are other preservationists who would cringe at the finding that, according to the TWPI, storage in a basement is better than storage in a closet. Finally, although the values "assume" that all organic material deteriorates at the same rate, the authors state that this "assumption is . . . not strictly true."

The National Endowment for the Humanities has awarded IPI a grant to test these new concepts of PI and TWPI using the PEM. I look forward to seeing the results and to learning which institutions were chosen to take part in the research. As presented in *New Tools*, the process would best serve larger insti-

tutions where the commitment already exists to maintain a strong, influential, and permanent preservation program. Smaller institutions may want to stay with the simpler, thermometer/hygrometer method to monitor and record storage conditions.—*James W. Mason, San Francisco.*

Remer, Rosalind. *Printers and Men of Capital: Philadelphia Book Publishers in the New Republic.* Philadelphia: Univ. of Pennsylvania Pr., 1996. 210p. \$34.95, alk. paper. (ISBN 0-8122-3337-9.) LC 95-51384.

This succinct, but thorough study explores the economics of the production, marketing, and distribution of books (not newspapers, periodicals, or job printing) in the United States from the 1790s to about 1830. Using Philadelphia as a case study, the author focuses on the people producing books during this period and their transformation from low-risk printers to entrepreneurial publishers (e.g., Mathew Carey). The book trade in Philadelphia, the republic's capitol during the 1790s, is known for its variety of output during the 18th century, and abundant specific evidence survives in the form of correspondence, account books, city directories, and the books themselves.

All too often, we do not stop to examine how and why a book was produced. Remer explores the process at a time of transition from reliance on the trade overseas to self-sufficiency, from the general to the specialized, from craftsman to middle-class merchant, from local to broader markets—and before railroads and banks. She discusses financial risks, patronage and politics, choice of texts, the decline of journeymen, competition and cooperation, wholesaling, credit and bankruptcy, exchange and commission, sources of type and paper, relationships with binders, how accounts were kept, development of new markets, preachers and peddlers as distributors in the back country, and