presentation is quite mundane and presented in the simplest analytical terms. He tells those of us who are reasonably well schooled in university librarianship what it is we already know. It is almost as if he were lecturing to faculty members, using the least sophisticated explanations of librarianship and university library problems in order to explain what we do and the dilemmas we face in adopting alternatives in our various operations.

There is little hint in the author's text of new futures for the university library, even though the author admits this is an exciting time for university libraries. In the chapter on computer applications, for example, the author rightly notes that it is improper to design computer systems to reproduce the practices that we previously turned out manually. But having opened the door for some potentially exciting analytical comments, he merely says that we should analyze our manual system and decide what it is we want done and then design a new system.

The author shows considerable skill in covering the main points of the operation of the university library. This is, however, his personal statement: there are only eight footnotes in the entire book, these appearing in the first few pages. There is no guidance as to how we can expand our understanding of the various areas of the university librarianship through further reading.

In spite of the fact that the author claims this is not a textbook, it might best be used as an introductory reading for people without library-school training, who want to work in a library. At that, it will not tell them how to perform any tasks, but will merely offer a generalized explanation of the fundamentals and the philosophy of university library work. The author won't offend anyone with his conventional analysis, but also he won't stimulate much provocative discussion given his pedestrian presentation.—*Russell Shank, University of California at Los Angeles.*

Queen, Daniel. **"Headphones for Library and Educational Use."** *Library Technology Reports* 16:561–612 (Nov.–Dec. 1980). Single issue $40. ISSN 0024-2586. Available from: American Library Association, 50 E. Huron St., Chicago, IL 60611. Although test reports for stereophonic

headphones are frequently published in such places as *High Fidelity* and *Stereo Review*, reports for monaural sets are seldom written. For this reason, *LTR*'s issue on monaural headphones most frequently used in libraries is especially welcome. The report was prepared by Daniel Queen, a noted audio consultant. Some nineteen different models were included in the test program including all monaural headphones listed in the 1978–79 *National Audio Visual Association Directory*. (Most of these same models plus a few additional ones are included in the 1980–81 *Directory* with the exception of the Superex, which is not listed.)

The tests focused primarily on sound reproduction abilities and electrical characteristics. The comparative durability and reliability of the models was not tested. Although no attempt was made to rank the earphones, a scale was devised for rating sound quality. One can easily compare the sound ratings and the prices.

Queen describes in some detail the procedures used in testing the headphones. For purposes of determining sound quality, he measured roughness (quality of hearing individual voices clearly), articulation (quality of hearing differences in words), harshness (a measurement of auditory fatigue), and a composite sound rating that takes into account all of the other sound qualities. The other data given in the reports regard safety factors that are critically important when selecting headphones. These safety factors include measurements for impedance, sensitivity, exposure level with 10-volt imprint, and series resistance. Queen carefully explains in the introductory material the method used and purpose for each of the safety tests.

A review of this report will be vital for anyone intending to purchase monaural headphones. Sound quality data plus a review of the safety factors and one's own estimation of the model's durability and reliability will provide a good basis for selecting the desired headphones.

A worthwhile companion article in this same issue of *LTR* provides test reports of portable microfiche readers done by the National Reprographic Centre for Documentation.—*David B. Walch, California Polytechnic State University, San Luis Obispo, California.*