concoction. Author codes made up of letters and numbers are attacked (p. 504) without seeming awareness that a considerable shortening of the notation can thereby result. CC is taken (§U) as the only system that concerns itself with anything beyond class numbers, but LC is at least a partial example (by enumeration) of another which does. The discussion of "dimension" (§QA) is not at all clear, especially in §QA3. Finally (and most seriously), the proposal to move all Problem facets into the Matter category (§RB) seems to me a great mistake, even though the similar thematic location of Property facets there is good. Ranganathan seems rather caught in the PMEST (Personality, Matter, Energy, Space, Time) categorization. If there were three categories (Static aspects, Dynamic aspects, and Environmental aspects), the first would clearly absorb P and M (including Property), the second would correspond to E (including Problem), and the third would surely take in S and T. To make some such new attempt is even recommended (p. 298); Ranganathan, like Aristotle, is too easily charged with an undeserved dogmatism. On p. 267 he mentions how "sheer repetition" led Bliss to a "dogmatic creed" in regard to "Economic Limit of Notation." What we must do is to penetrate (in all such cases, as well as in these three) to the animating quest beneath the crust of exposition.-J. M. Perreault, University of Alabama in Huntsville.

BOOKS RECEIVED

Note: The titles listed represent books received at the editorial office that may be of interest to academic librarians.

Bricker, George W., comp. Bricker's Directory of University-sponsored Executive Development Programs. 1970 ed. Wilton, Conn.: Bricker Publications, 1969. \$40.00. (73-110249).

Children's Books in Print 1969. New York and London: R. R. Bowker, 1969, 605p.

\$11.50. (70-101705).

Clapp, Jane. Sculpture Index. Vol. 1: Sculpture of Europe and the Contemporary Middle East. Metuchen, N.J.: Scarecrow Press, 1970. 924p.

Davies, Ruth Ann. The School Library—a Force for Educational Excellence. New York and London: R. R. Bowker, 1969. 386p. \$9.95. (70-94511).

Edson, Jean Slater. Organ Preludes; an Index to Compositions on Hymn Tunes. Chorales, Plainsong Melodies, Gregorian Tunes and Carols. Vol. 1: Composer Index; Vol. 2: Tune Name Index. Metuchen, N.I.: Scarecrow Press, 1970. 1169p. \$30.00. (SBN 8108-0287-2).

Four College Libraries; Union List of Journal and Serial Holdings as of July 1, 1969. 4th ed. Amherst, Mass.: University

of Massachusetts Library, 1969.

Gilbert, Dorothy B., ed. Who's Who in American Art. 10th ed. New York: R. R. 1970. 548p. \$25.00. Bowker, 27014).

Husband, Hugh P., Jr. Management Faces Unionization. New York: Management

Sourcebooks, 1969, 262p.

Index to 8mm Motion Picture Cartridges. New York and London: R. R. Bowker, 1969. 402p. \$19.50. (72-91716).

International Literary Market Place 1970. New York and London: R. R. Bowker,

1970. 236p. \$10.00 (65-28326).

Jenkins, Frances B. Science Reference Sources. 5th ed. Cambridge, Mass.: The MIT Press, 1969. 231p. \$2.95 paperback: \$10.00 hard cover. (73-95001).

Kroepsch, Robert H., and Thompson, Ian M., comps. Urban and Minoritycentered Programs in Western Colleges and Universities. Report of a WICHE Staff Survey Made in the Spring, 1969. Boulder, Colo.: Western Interstate Commission for Higher Education, 1969. 69p.

Landau, Robert A., and Nyren, Judith S., eds. Large Type Books in Print. New York and London: R. R. Bowker, 1970.

193p. \$10.00. (74-102773).

Library Automation. Computer-produced Book Catalog. White Plains, New York: IBM, Data Processing Application, 1969.

Long, Harriet Geneva. Public Library Service to Children; Foundation and Development. Metuchen, N.J.: Scarecrow Press, 1969. 162p. \$5.00. (SBN 8108-0291-0).

MacKay, Donald M. Information, Mechanism and Meaning. Cambridge, Mass.: M.I.T. Press, 1969. 196p. \$2.95 paperback; \$8.95 hard cover. (73-78098).

Peterson, Carolyn Sue. Reference Books for Elementary and Junior High School Libraries. Metuchen, N.J.: Scarecrow Press, 1970. 191p. \$5.00. (72-8294).

Theis, Paul A., and Henshaw, Edmund L., Ir., eds. Who's Who in American Politics. 2nd ed. 1969-1970. New York and London: R. R. Bowker, 1969. 1334p. \$27.00. (67-25024).

Thomison, Dennis. Readings about Adolescent Literature. Metuchen,

Scarecrow Press, 1970, 222p. \$5.00. (SBN 8108-0282-1).

Tompkins, Margaret, and Shirley, Norma, comps. A Checklist of Serials in Psychology and Allied Fields. Troy, N.Y.: Whitson Publishing Co., 1969. 262p. \$10.50. (70-97477).

Warnow, Joan Nelson. A Selection of Manuscript Collections at American Repositories. National Catalog of Sources for History of Physics, report no. 1. New York: Niels Bohr Library, Center for History and Philosophy of Physics, American Institute of Physics, 1969, 73p.

ABSTRACTS

The following abstracts are based on those prepared by the Clearinghouse for Library and Information Sciences of the Educational Resources Information Center (ERIC/CLIS), University of Minnesota, 2122 Riverside Ave-

nue, Minneapolis, Minnesota 55404.

Documents with an ED number may be ordered in either microfiche (MF) or hard copy (HC) from ERIC Document Reproduction Service, National Cash Register Company, 4936 Fairmont Avenue, Bethesda, Maryland 20014. Orders must include ED number and specification of format desired. A \$0.50 handling charge will be added to all orders. Payment must accompany orders totaling less than \$5.00. Orders from states with sales tax laws must include payment of the appropriate tax or include tax exemption certificates.

Documents available from the Clearinghouse for Federal Scientific and Technical Information, Springfield, Virginia 22151 have CFSTI number

and price following the citation.

SPIRES (Stanford Public Information Retrieval System). Annual report (2d, 1968). By Edwin B. Parker and others. Stanford University, Calif.: Institute for Communication Research, 1968, 136p. (Available from CFSTI as PB 184 960, MF-\$0.65 HC-\$3.00).

During 1968 the name of the project was changed from "Stanford Physics Information Retrieval System" to "Stanford Public Information Retrieval System" to reflect the broadening of perspective and goals due to formal collaboration with Project BALLOTS (Bibliographic Automation of Large Library Operations using a Time-Sharing System). The primary facility under development is still the computer information system for on-line reference retrieval. The file language techniques used are essentially as described in the 1967 report. The computer programming done in the demonstration version of SPIRES was judged to be suitable as the nucleus for the Stanford Library Automation Project, and is to be used to provide more efficient internal processing of bibliographic information in the library. The major technical progress during 1968 was the completion of the SPIRES Supervisor, a special-purpose time-sharing system that serves multiple typewriter terminals. The designer, William Riddle, describes the specifications for the Supervisor in Appendix I of this report. Also appended is the SPIRES reference manual, a guide to user procedures prepared by Richard Bielsker. (The 1967 annual report is ED 017 294, PB 177 087.)

Organization of a Capitol Region Library Council. A report on the Proposals and Activities of Neumann Associates. Hartford, Conn.: Capitol Region Council of Elected Officials. 24p. (Available from CFSTI as PB 184 039, MF—\$0.65 HC—\$3.00).

In 1967 the Regional Advisory Committee for the Capitol Region, Inc. of Hartford, Connecticut, commissioned a study by Nelson Associates entitled "Library Service in the Capitol Region of Connecticut: A Study with Recommendations for Future Development" (Ed 026 089). As a result of this report the Capitol Region Council of Elected Officials contracted with Neumann Associates to create a Capitol Region Library Council (CRLC). This report summarizes activities of the Neumann Associates in this effort including meetings of the Interim Council and discussions leading to a set of proposed bylaws for the CRLC. Possible programs are listed involving improved access to library resources by the citizens of the region, direct service to library users provided by the CRLC, the provision of centralized administrative services, improved public relations, and improvement of individual libraries in the region. Appendix I is a list of meetings, conferences, and appearances. Also appended are the recommended bylaws, a proposed budget, and the recommended dues schedule.

Reports of the Studies of the Publication Fate of Material Presented at National Meetings (Two Years After the Meetings). Baltimore, Md.: Johns Hopkins University Center for Research in Scientific Communication. 85p. (Available from CFSTI as PB 185 469, MF—\$0.65 HC—\$3.00).

Included in this document are seven reports dealing with the post-meeting journal publication of papers presented at vari-

ous national meetings. The studies were all made two years after the meetings. The national meetings involved in the studies were: (1) October 1966 Meeting of the Optical Society of America; (2) Meeting of the American Sociological Association; (3) two meetings of the American Institute of Aeronautics and Astronautics; (4) 1967 Annual Meeting of the American Geophysical Union; (5) 96th Annual Meeting of the American Institute of Mining, Metallurgical and Petroleum Engineers: (6) 1967 Annual Meeting of the Association of American Geographers; and (7) two meetings of the American Meteorological Society.

Information Resources; A Searcher's Manual. MOREL Regional Information System for Educators. By George Grimes and James Doyle. Detroit: Michigan-Ohio Regional Educational Laboratory, Inc. 56p. (ED 034 559, MF—\$0.25 HC—\$2.90).

This document is one of a series describing the background, functions, and utilization of the Regional Information System (RIS) developed by the Michigan-Regional Educational Laboratory (MOREL). The purpose of this manual is to detail a procedure for performing a productive search of informational needs of educators. The focus of the manual is upon the individual researcher, but the methodology and materials delineated could be used within an organization as well. The manual is divided into two general sections. Chapter one discusses the searching procedure covering definition of the question, the information searching procedure, and the bibliographic chain. A search procedure form and a model of the searching process are also included. Chapter two deals in more detail with the various informational formats included in the bibliographic chain. Specific resources are listed and annotated, including human, institutional, and printed resources, and information agencies. The concluding section of the manual provides a listing of existing sources of these resources, the suggested contents of a basic educational reference collection, and a keyword index. A selected bibliography of fourteen items on the searching procedure is appended.

Information Services; A Survey of the History and Present Status of the Field. MOREL Regional Information System for Educators. By George Grimes. Detroit: Michigan-Ohio Regional Educational Laboratory, Inc., 1969. 35p. (ED 034 560, MF—\$0.25 HC—\$1.85).

This document is one of a series describing the background, functions, and utilization of the Regional Information System (RIS) developed by the Michigan-Regional Educational Ohio Laboratory (MOREL). The continuing history of the field of librarianship and information services is reviewed in this report. The first part covers ancient times to the invention of movable type; the second extends from the advent of print to the end of the nineteenth century; and the third summarizes the period from 1900 to the present. The first two parts deal almost exclusively with library history, although the work of documentalists becomes a stronger and stronger trend from the last of the nineteenth century onwards. The emphasis in the last part is on the accelerating activities of the information services area as operationalized by those engaged in documentation, information retrieval, and the emerging discipline of information science. Appended are descriptions of the information service efforts of four regional educational laboratories: the Far West Laboratory for Educational Research and Development, the Michigan-Ohio Regional Educational Laboratory, the Central Midwestern Regional Educational Laboratory, and the Southwestern Cooperative Educational Laboratory.

Establishing the Information System: An Operational Handbook. MOREL Regional Information System for Educators. By Charles Kromer and James Doyle. Detroit: Michigan-Ohio Regional Educational Laboratory, Inc., 1969. 65p. (ED 034 561, MF—\$0.50 HC—\$3.35).

This document is one of a series describing the background, functions, and utilization of the Regional Information System (RIS), developed by the Michigan-Ohio Regional Educational Laboratory (MOREL). RIS, which was developed to improve the accessibility of information for the educational practitioner, is described in this handbook. The handbook is also designed to help others plan, develop, and operate information systems. Included in the handbook are: (1) an introduction to RIS; (2) a detailed description of the system's two components: the Resource Bank and the Referral Library; (3) information on installation activities; (4) discussions of staffing, facilities, costs, the timetable, and evaluation; and (5) a summary of the evolution of the system. Appendixes include: the Resource Bank coding scheme, the As-Referral Information sociation (ARIS) coding scheme, a list of suggested materials for a basic referral library collection, a sample numeric subclassification system, Keyword in Context (KWIC) listings, the MOREL search procedure form, a sample data sheet, and an annotated list of selected collections of materials in the MOREL Information Center's information file.

Studies in Public Library Government, Organization, and Support. Final Report. By Guy Garrison. Illinois University, Urbana: Library Research Center, 1969. 538p. (ED 034 567, MF—\$2.00 HC—\$27.00).

This report consists of six individual reports that were done by staff members at the Library Research Center as part of the overall project. In Part I, "Financing Public Library Expansion: Case Studies of Three Defeated Bond Issue Referendums," Ruth G. Lindahl and William S. Berner analyze defeated library bond issue referendums in Champaign, Quincy, and Peoria, Illinois. In Part II, "Suburban Communities and Public Library Service in the Chicago Metropolitan Statistical Area, Ruth G. Lindahl tests the proposition that certain types of suburban communities will have predictably higher levels of public library service than will others. For Part III, "Public Opinion in Illinois Regarding Public Library Support and Use" by Carol Kronus and James W. Grimm, field interviews were conducted with 2,031 respondents representing a probability sample of adult residents of Illinois. In Part IV, William S. Berner examines "Campaign Conduct and the Outcome of Library Bond Referendums." Barbara O. Slanker, in Part V, is concerned with "Administrative Structure of Public Library Systems and Its Relationship to Level of Service Offered by Member Libraries." In Part VI, Ralph Stenstrom presents an analysis of "Factors Associated with Membership and Nonmembership in Library Systems in Illinois."

The Cost of Maintaining and Updating Library Card Catalogs. Final Report. By J. L. Dolby and others. Los Altos, Calif.: R and D Consultants, 1969. 127p. (ED 035 432, MF—\$0.50 HC—\$6.45. A related document is ED 022 517).

The main problem considered in this project is whether it will be possible for civilization to cope with the increasing quantities of archival information that must be stored in libraries, and if so, whether traditional methods of identification and access will prove adequate to the task. It is concluded that unless the storage, transmission, and retrieval of information in library archives is automated, there is no hope of keeping pace with the exponential growth of libraries. Part I explores the problem of determining the relationship of library growth to the growth of those components of civilization that support and use libraries. Part II analyzes cost factors in maintaining and updating card catalogs. It was found that simple situations do not require automation, but that complex ones, which appear unavoidable for most large libraries, demand automation on economic as well as on access grounds.

A Computer Based System for Reserve Activities in a University Library. By Paul J. Fasana and others. Columbia University, N.Y.: The Libraries, 1969. 109p. (ED 035 431, MF—\$0.50 HC—\$5.55).

After a detailed study of the reserve processing activities of the Columbia University Library System, it was decided that an attempt to design a reserve system which would make the fullest use of computers would be undertaken. This would be an integrated system developed over a period of time in a series of clearly defined phases. Three different phases were distinguished which could be developed in series or simultaneously, depending on such factors as operating software and hardware availability. After three years a fully tested system, called Reserves Processing has been developed for Phase One and implemented in two working environments. The Reserves Processing system accepts input in the form of brief bibliographic citations, inventory data and course information, creates a master machine stored reserve file, produces a variety of records to assist in the processing of reserve books, and prints a variety of lists to be used for reference purposes. All of these operations, except input, are done as off-line, batch-processed operations. Only input is done in an on-line mode. This report includes a general systems description intended for the nontechnical reader as well as program and hardware specifications intended for the technical reader.

Cost and Time Analysis of Monograph Cataloging in Hospital Libraries: A Preliminary Study. By Linda Angold. Detroit: Wayne State Univ., Library and Biomedical Information Service Center, 1969. 23p. (ED 035 428, MF—\$0.25 HC —\$1.25).

The purpose of this paper is: (1) to propose models to be used in evaluating relative time and cost factors involved in monograph cataloging within a hospital library, and (2) to test the models by performing a cost and time analysis of each cataloging method studied. To establish as complete a list of cataloging work units as possible, several hospital catalogers in the Detroit area were interviewed to learn the pattern of steps they follow. A checklist of cataloging work was then prepared to test the following possible approaches to cataloging: (1) original cataloging, using either Library of Congress (LC) or National Library of Medicine (NLM) systems, (2) cataloging with LC cards, (3) cataloging with (LC) cards, but utilizing NLM subject headings, (4) cataloging with LC proofcopy, and (5) cataloging from NLM bibliographic information. Data for the cost-time analysis was collected during March of 1969 at the Wayne State Uni-School of Medicine (WSUML). Fifty titles considered suitable for a hospital library were cataloged using each of the above approaches. The different cataloging methods measured are discussed in relation to the hospital library situation. For each method there is a table listing the time and cost values for every work unit with alternatives available within each method.

A Systems Analysis of the Library and Information Science Statistical Data System: The Preliminary Study. Interim Report. By Morris Hamburg and others. Philadelphia: Pennsylvania University. 55p. (ED 035 421, MF—\$0.25 HC—\$2.85).

The long-term goal of this investigation is to design and establish a national model for a system of library statistical data. This is a report on The Preliminary Study which was carried out over an eleven-month period ending May 1969. The objective of The

Preliminary Study was to design and delimit The Research Investigation in the most efficient and meaningful way. The Preliminary Study concentrated on (1) the background research required to determine the nature and relevance of previous and ongoing research in this field and (2) the design of The Research Investigation. The Preliminary Study included a literature search and intensive review of relevant research; interviews with a wide variety of librarians, officials of library associations, government officials, and university researchers; and other activities relevant to the construction of the design of The Research Investigation. This final report primarily consists of a proposal for The Research Investigation and a summary of a background study on "Statistical Measures Required for Library Managerial Decision Making Under a Planning-Programming-Budgeting-System (PPBS). This background study was a masters thesis by Jerome Ackerman (University of Pennsylvania), partially supported under the grant for The Preliminary Investigation. Appended are a 101-item bibliography and library benefit-cost management