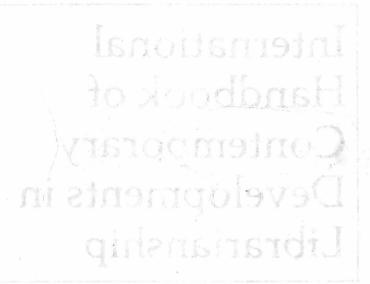# International Handbook of Contemporary Developments in Librarianship

Edited by Miles M. Jackson

# International Handbook of Contemporary Developments in Librarianship

## Edited by Miles M. Jackson

GREENWOOD PRESS
WESTPORT, CONNECTICUT

# ABBREVIATIONS

| | |
|---|---|
| AACOBS | Australian Advisory Council on Bibliographical Services |
| AACR | Anglo-American Cataloguing Rules |
| AALS | Association of American Library Schools |
| AASL | American Association of School Librarians |
| ABIESI | Association of Librarians of Institutions of Higher Education and Research |
| ABT | Arbeitsstelle für Bibliothekstechnik (Center for Library Technology) |
| ACSC | Association of Christian Schools and Colleges |
| ACURIL | Association of Caribbean University, Research and Institutional Libraries |
| AECT | Association for Educational Communications and Technology |
| AFB | Arbeitsstelle für das Bibliothekswesen (Institute for Librarianship) |
| AGECON | Agricultural Economics |
| AGRICOL | Agricultural On-Line Access |
| AGRIS | International Information System for Agricultural Sciences and Technology |
| AHITI | Animal Health and Industrial Training Institute |
| AIBA | Agricultural Information Bank for Asia |
| AID | Agency for International Development |
| ALA | American Library Association |
| ALA | Associateship of the Library Association |
| ALAP | Agricultural Libraries Association of the Philippines |
| ALBASA | Academic Library Book Acquisitions Services Association, Inc. |
| AMBAC | Mexican Association of Librarians |
| ANHUL | Australian National Humanities Library |
| ANSOL | Australian National Social Sciences Library |
| ANSTEL | Australian National Scientific and Technical Library |
| ANUIES | National Association of Universities and Institutions of Higher Education |
| ANUJ | Association of Scientific Unions of Yugoslavia |
| APAIS | Australia Public Affairs Information Service |
| AREC | Agricultural Research and Educational Center |
| ARL | Association of Research Libraries |
| ASA | Australian Society of Archivists |
| ASEAN | Association of Southeast Asian Nations |
| ASCIS | Australian School Catalogue Information Service |
| ASI | Israel Library Association |
| ASIDOC | Asian Cultural Documentation Center for UNESCO |
| ASLP | Association of Special Libraries of the Philippines |
| ASPB | Arbeitsgemeinschaft der Spezialbibliotheken (Working Committee of Special Libraries) |

| AUB | American University in Beirut |
| AUSINET | Australian Information Network |
| AUSINTEL | Australian International and Ethnic Library |
| BALLOTS | Bibliographic Automation of Large Library Operations Using a Time-Sharing System |
| BANSDOC | Bangladesh National Scientific and Technical Documentation Centre |
| BAU | Beirut Arab University |
| BBC | British Broadcasting Corporation |
| BILCO | Committee on Bibliographical and Library Cooperation (Singapore) |
| BLAISE | British Library Automated Information Service |
| BLCMP | Birmingham Libraries' Co-operative Mechanisation Project |
| BLLD | British Library Lending Division |
| BLS | Bachelor of Library Science |
| BIOSIS | BioSciences Information Service |
| BNB | British National Bibliography |
| BRS | Bibliographic Retrieval Services |
| BSE | Bachelor of Science in Education |
| BSEEd | Bachelor of Science in Elementary Education |
| CAAE | Canadian Association for Adult Education |
| CACL | Canadian Association of Children's Libraries |
| CACUL | Canadian Association of College and University Libraries |
| CAI | Computer Assisted Instruction |
| CAIN | Cataloging and Indexing |
| CAN/MARC | Canadian Machine Readable Cataloging |
| CAN/OLE | Canadian On-Line Enquiry |
| CAN/SDI | Canadian Selective Dissemination of Information |
| CAPL | Canadian Association of Public Libraries |
| CARICOM | Caribbean Community |
| CARIRI | Caribbean Industrial Research Institute |
| CARL | Canadian Association of Research Libraries |
| CAT | College of Advanced Technology |
| CAVAL | Cooperative Action by Victorian Academic Libraries |
| CB | College of Librarianship |
| CCM | Chama cha Mapinduzi (Revolutionary Party) |
| CDC | Caribbean Documentation Centre |
| CD&W | Colonial Development and Welfare |
| CEAP | Catholic Education Association of the Philippines |
| CED | Cape Education Department |
| CENTO | Central Treaty Organization |
| CEPAL | Comision Economica para America Latina (cf. ECLA) |
| CFTC | Commonwealth Fund for Technical Assistance |
| CICH | Center of Scientific and Humanistic Information |
| CICRIS | Commercial and Technical Library Service of West London |
| CIDA | Canadian International Development Agency |
| CILES | Central Information, Library and Australia Editorial Section |
| CIP | Cataloging in Publication |
| CLA | Canadian Library Association |
| CLADES | Centro Latinoamericano de Documentacion Economica y Social |
| CLANN | College Libraries Activities Network in New South Wales |

| | |
|---|---|
| CLENE | Continuing Library Education Network Exchange |
| CLR | Council on Library Resources |
| CLS | Central Library for Students |
| CNAA | Council for National Academic Awards |
| COCOPEA | Coordinating Council of Private Educational Associations |
| CODECA | Corporacion de Desarrollo Economica del Caribe |
| CODIECLI | Editorial Industry and Book Commerce Committee |
| COM | Computer Output Microfilm |
| COMECON | Council for Mutual Economic Assistance |
| COMLA | Commonwealth Library Association |
| CONACYT | National Council for Science and Technology |
| CONSAL | Congress of Southeast Asian Librarians |
| COSTI | Center of Scientific and Technological Information (Israel) |
| CRI | Cocoa Research Institute |
| CRIT | Coordinating Regional Information Training |
| CRRL | Central Reference and Research Library (Ghana) |
| CSIR | Council for Scientific and Industrial Research (Ghana) |
| CSIR | Council for Scientific and Industrial Research (South Africa) |
| CSIRO | Commonwealth Scientific and Industrial Research Organization (South Africa) |
| CSSA | Computer Society of South Africa |
| CSTI | Center for Scientific and Technical Information (South Africa) |
| DBI | Deutsche Bibliotheksinstitute (German Library Institute) |
| DBK | Deutsche Bibliothekskonferenz (German Library Conference) |
| DBV | Deutsche Bibliotheksverband (German Library Organization) |
| DDS | Dewey Decimal System |
| DF | Federal District |
| DFG | Deutsche Forschungsgemeinschaft (German Research Association) |
| DLS | Department of Library Studies |
| DRTC | Documentation Research and Training Centre |
| DSIR | Department of Scientific and Industrial Research |
| EACSO | East African Common Services Organization |
| EAFRO | East African Agricultural and Forestry Research Organisation |
| EALA | East African Library Association |
| EALB | East African Literature Bureau |
| ECA | Economic Commission for Africa (UN) |
| ECLA | Economic Commission for Latin America (cf. CEPAL) |
| ECRL | Eastern Caribbean Regional Library |
| ECSLA | East-Central State School Libraries Association (Nigeria) |
| EDPITAF | Educational Development Projects Implementing Task Force |
| EEC | European Economic Community |
| ENBA | National School of Librarians and Archivists |
| ENSLA | Eastern Nigeria School Libraries Association |
| ERIC | Educational Resources Information Center |
| ESEA | Elementary and Secondary Education Act |
| ETREC | English Language Teaching Resource Centre (Ghana) |
| FAO | Food and Agriculture Organization (UN) |
| FAPE | Fund for Assistance to Private Education |
| FID | Federation Internationale de Documentation |

| | |
|---|---|
| FLA | Fiji Library Association |
| FLA | Fellow of the Library Association |
| FUC | Filipiniana Union Catalogue |
| GAZS | Gesamtverzeichnis auslandischer Zeitschriften und Serien |
| GBDL | Gesellschaft für Bibliothekswesen und Dokumentation des Landbaus (Society for Librarianship and Documentation of Architecture) |
| GCE | General Certificate of Examination (Ghana) |
| GDZS | Gesamtverzeichnis deutschsprachiger Zeitschriften und Serien |
| GIMPA | Ghana Institute of Management and Public Administration |
| GKS | Gesamtverzeichnis der Kongresschriften |
| GLASS | Greater London Audio Specialization Scheme |
| GZS | Gesamtverzeichnis der Zeitschriften und Serien |
| HEA | Higher Education Act |
| HSRC | Human Sciences Research Council (South Africa) |
| IAALD | International Association of Agricultural Librarians and Documentalists |
| IAML | International Association of Music Libraries |
| IARI | Indian Agricultural Research Institute |
| IASL | International Association of School Librarians |
| IASLIC | Indian Association of Special Libraries and Information Centres |
| IBRD | International Bank for Reconstruction and Development |
| ICAR | Indian Center for Agricultural Research |
| ICIPE | International Centre of Insect Physiology and Ecology |
| ICSSR | Indian Council of Social Science Research |
| ICSU | International Council of Scientific Unions |
| ICTA | Imperial College of Tropical Agriculture |
| IDRC | Industrial Development Research Council |
| IDRS | Interdepartmental Reference Service |
| IFLA | International Federation of Library Associations |
| IIC | Industrial Inforamtion Centre (South Africa) |
| IIT | Indian Institutes of Technology |
| ILA | Iranian Library Association |
| ILO | International Labor Organization |
| ILRAD | International Laboratories for Research on Animal Diseases |
| IML | Institute for Medical Literature (South Africa) |
| IMP | Mexican Petroleum Institute |
| INDOK | Information Documentation Centers |
| INFOTEC | Technical Information |
| INIA | National Institute of Agricultural Research |
| INIS | International Nuclear Information System |
| INSDOC | Indian National Scientific Documentation Centre |
| INSPEC | Information Service for Physics, Electrotechnology, and Control |
| INTAMEL | International Association of Medical Libraries |
| IPA | Institute of Public Administration (South Africa) |
| IPN | National Polithechnic Institute |
| I&R | Information and Referral |
| IRANDOC | Iranian Documentation Centre |
| IRCIHE | International Referral Center for Information Handling Equipment |
| IRRI | International Rice Research Institute |
| ISBD | International Standard Bibliographic Description |

| | |
|---|---|
| ISBN | International Standard Book Number |
| ISCOR | Iron and Steel Corporation (South Africa) |
| ISDS | International Serials Data System |
| ISER | Institute of Social and Economic Research |
| ISIRI | Institute of Standards and Industrial Research of Iran |
| ISLIC | Israel Society of Special Libraries and Information Centers |
| ISMEC | Infomration Service in Mechanical Engineering (British) |
| ISO | International Standard Organization |
| ISORID | International Information System on Research in Documentation (Australia) |
| ISRS | Information Storage and Retrieval Systems |
| ISSER | Institute of Statistical, Social and Economic Research (Ghana) |
| ISSI | Institute for Small-Scale Industries |
| ITEMSM | Technological Institute of Higher Studies of Monterrey |
| ITR | Regional Technological Institutes |
| JLA | Jamaica Library Association |
| JLA | Jordanian Library Association |
| JLS | Jamaica Library Service |
| JNUL | Jewish National and University Library |
| JSCLCBS | Joint Standing Committee on Library Co-operation and Bibliographical Services (Singapore) |
| KALI | Korean Academy of Library and Information Science |
| KBA | Konferenz der Bibliothekarischen Ausbildungsstaten (Conference of Library Training Institutions) |
| KIE | Kenya Institute of Education |
| KISR | Kuwait Institute for Scientific Research |
| KLA | Kenya Library Association |
| KLA | Korean Library Association |
| KNAAAS | Kenya Academy for Advanced Arts and Sciences |
| KNLS | Kenya National Library Services Board |
| KORSTIC | Korea Scientific and Technological Information Center |
| KSTC | Kenya Science Teachers College |
| KTTC | Kenya Technical Teachers College |
| LA | Library Association |
| LAA | Library Association of Australia |
| LAB | Library Association of Bangladesh |
| LAS | Library Association of Singapore |
| LASER | London and South Eastern Library Region |
| LASIE | Literary Automated Systems Information Exchange (Australia) |
| LASSOS | Library Automation Services and Systems Options Study |
| LATT | Library Association of Trinidad and Tobago |
| LC | Library of Congress |
| LED | Library Education Division |
| LRC | Learning Resource Centres |
| LSA | Library Services Act |
| LSCA | Library Services and Construction Act |
| LV | Deutscher Leihverkehr (German Circulation Process) |
| LVO | Leihverkehrsordnung (Regulation for the Circulation Process) |
| MALMARC | Malaysian Machine Readable Cataloging |
| MANIS | Malaysian National Information System |

| | |
|---|---|
| MARC | Machine Readable Cataloging |
| MARC | Micronesian Area Research Center |
| MAT | Master of Arts in Teaching |
| MEC | Ministry of Education and Culture |
| MEDLARS | Medical Literature Analysis and Retrieval System |
| MEDLINE | Medical Literature Analysis and Retrieval On-Line |
| MeSH | Medical Subject Heading |
| MLG | Malayan Library Group |
| MMLA | Metro Manila Library Association, Inc. |
| MPLA | Malayan Public Library Association |
| MRC | Medical Research Council (South Africa) |
| MTC | Medial Training Centre |
| NABD | Normenausschuss Bibliotheks und Dokumentationswesen (Standardization Committee of Librarianship and Documentation) |
| NACOLADS | National Council on Librarian Archives and Documentation Services |
| NAL | National Agriculture Library |
| NAL | National Assembly Library (Korea) |
| NAREM | National Register of Manuscripts (South Africa) |
| NATIS | National Information Systems |
| NBDCS | National Book Development Council of Singapore |
| NCERT | National Council for Educational Research and Training (India) |
| NCES | National Center for Education Statistics |
| NCLIS | National Commission on Libraries and Information Sciences |
| NCSRC | National Center for Social and Criminological Research |
| NCTA | National Council for Technological Awards |
| NDEA | National Defense Education Act |
| NDO | Network Development Office |
| NEA | National Education Association |
| NED | Natal Education Department (South Africa) |
| NIOC | National Iranian Oil Company |
| NLAC | National Library Advisory Council (South Africa) |
| NLIST | National Lending Library for Science and Technology |
| NORLA | Northern Regional Literacy Agency (Nigeria) |
| NPLS | Natal Provincial Library Service |
| NSDB | National Science Development Board |
| NSL | National Science Library |
| NSTIC | National Scientific and Technical Information Center |
| NUCOM | National Union Catalogue of Monographs |
| NZLA | New Zealand Library Association |
| NZLA Cert | New Zealand Library Association Certificate |
| OAS | Organization of American States |
| OAU | Organization of African Unity |
| OCLC | Ohio College Library Center |
| OCPC | Office of Compensation and Position Classification |
| OECD | Organization for Economic Cooperation and Development |
| OFS | Orange Free State |
| ORBIT | On-Line Retrieval of Bibliographic Information-Timeshared |
| OSTI | Office for Scientific and Technical Information |
| PAARL | Philippine Association of Academic and Research Libraries |

| | |
|---|---|
| PAASCU | Philippine Accrediting Association of Schools, Colleges and Universities |
| PACU | Philippine Association of Colleges and Universities |
| PANSDOC | Pakistan National Scientific and Technical Documentation Centre |
| PASL | Philippine Association of School Librarians |
| PASTIC | Pakistan Scientific and Technical Information Centre |
| PATLS | Phillipine Association of Teachers of Library Science |
| PCARR | Philippine Council for Agriculture and Resources Research |
| PCF | Population Center Foundation |
| PCSPE | Presidential Commission to Survey Philippine Education |
| PHILCUSA | Philippine Council for U.S. Aid |
| PI | Preussische Instruktionen (Prussian Instructions) |
| PISAL | Periodicals in South African Libraries |
| PLAP | Public Libraries Association of the Philippines |
| PLATO | Programmed Logic for Automatic Teaching Operations |
| PNB | Philippine National Bibliography |
| POTELIN | Post Office Teletronic Institute (South Africa) |
| PPM | Persatuan Perpustakaan Malaysia (Library Association of Malaysia) |
| PPOC | Per Pupil Operational Cost |
| PRECIS | Preserved Context Indexing System |
| PRESTEL | Trade name for British home-wired information utility |
| RAK | Regeln für die alphabetische Katalogisierung (Rules for Alphabetical Cataloging) |
| RAU | Rand Afrikaans University |
| RBL | Resource Based Learning |
| RIPS | Regional Institute for Population Studies (Ghana) |
| RLG | Research Library Group |
| RLIN | Research Library Information Network |
| RSFSR | Russian Soviet Federated Socialist Republic |
| SABUS | South African Business |
| SAC | Scientific Advisory Council |
| SALALM | Seminar on the Acquisition of Latin American Materials |
| SANB | South African National Bibliography |
| SAPONET | South African Post Office Network |
| SARIS | South African Retrospective Information System |
| SASDI | South African Selective Dissemination of Information |
| SATIS | Scientific and Technical Information Service |
| SAZI | Standortverzeichnis auslandischer Zeitungen und Illustrierten (Index of Foreign Newspapers and Magazines) |
| SCECSAL | Standing Conference of Eastern, Central and Southern African Librarians |
| SCOLE | Standing Committee on Library Education |
| SCONUL | Standing Committee of the National and University Library (Israel) |
| SDA | Seventh Day Adventist |
| SDI | Selective Dissemination of Information |
| SEAMEO | Southeast Asian Minsters of Education Organization |
| SENDOC | Small Enterprises National Documentation Centre |
| SEP | Ministry of Education |
| SINTO | System of Scientific, Technical and Management Information |
| SISIR | Singapore Institute of Standards and Industrial Research |

| | |
|---|---|
| SPC | South Pacific Commission |
| SPEC | South Pacific Bureau of Economic Cooperation |
| SPI | Singapore Periodicals Index |
| SRCE | University of Zagreb Computer Center |
| STAIRS | Storage and Information Retrieval System (South Africa) |
| SWIATOWID | Committee for the State Information System |
| TANU | Tanganyika African National Union |
| TEBROC | Tehran Book Processing Centre |
| TED | Transvaal Education Department |
| TELAAS | Transvaal Education Library and Audiovisual Ancillary Service |
| TIB | Technische Informationsbibliothek (Technical Information Library) |
| TIS | Technical Information Service (South Africa) |
| TOXLINE | Toxicology On-Line |
| TPL | Toronto Public Library |
| TRC | Technology Resource Center |
| TURDOK | Turkish Documentation Center |
| UAM | Autonomous Metropolitan University |
| UDC | Universal Decimal Classification |
| UGC | University Grants Commission (India) |
| UKM | Universiti Kebangsaan Malaysia (National University of Malaysia) |
| UM | University of Malaysia |
| UN | United Nations |
| UNAM | National University of Mexico |
| UNDP | United Nations Development Program |
| UNESCO | United Nations Educational, Scientific and Cultural Organization |
| UNIDO | United Nations Industrial Development Organization |
| UNISIST | Universal System for Information in Science and Technology |
| UNRWA | United Nations Relief and Works Agency |
| UP | University of the Philippines |
| UPM | Universiti Pertanian Malaysia (Agricultural University of Malaysia) |
| USAID | United States Agency for International Development |
| USIS | United States Information Service |
| USM | Universiti Sains Malaysia (University of Science) |
| UST | University of Science and Technology (Ghana) |
| UTM | University of Technology, Malaysia |
| UWI | University of the West Indies |
| VDB | Verein der Bibliothekare an Offentlichen Bibliotheken (Association of Librarians at Public Libraries) |
| VDB | Verein Deutscher Bibliothekare (Association of German Librarians) |
| VDDB | Verein der Diplom-Bibliothekare an wissenschaftlichern Bibliotheken (Association of Professional Librarians at Scientific Libraries) |
| VIDOC | Vital Documents |
| VRA | Volta River Authority |
| VRZS | Verzeichnis reshtswissenschaftlicher Zeitschriften und Serien |
| VSO | Volunteer Service Organization |
| WACRI | West African Cocoa Research Institute |
| WALA | West African Library Association |
| WAPCO | Wage and Position Classification Office |
| WHO | World Health Organization |

| | |
|---|---|
| WLN | Washington Library Network |
| WSH | Weighted Student Hours |
| ZMD | Zentralstelle für maschinelle Dokumentation (Central Branch of Computerized Documentation) |

# PREFACE

The *International Handbook of Contemporary Developments in Librarianship* was conceived in 1977 as a project that would present an overview of the major developments and most significant trends in librarianship since 1945. The book is not intended as a work of comparative library studies. Yet, it will prove useful as a handbook to scholars and students working in that area. It should be noted here that the terms "international" and "comparative librarianship" are regarded as having different meanings but both are of importance in trying to understand world librarianship. International librarianship is limited strictly to those activities that involve librarianship and all of its aspects across national boundaries. It would thereby exclude comparative analysis, but include such activities as exchange of librarians, books, ideas, and the study of library systems in different countries. On the other hand, comparative librarianship should lean on the tradition of comparative studies found in other fields such as political, government, and legal studies.

In order to fully understand the role or state of affairs of librarianship, the library problem must be placed in context. That is, one must see how that part called librarianship is related to nonlibrary factors. For example, the student or researcher studying library education in Anglophone Africa, the United States, and the United Kingdom will have a much easier task if he or she understands something of the history and politics of the colonial era.

Just as important as an understanding of historical and political factors is that of geography and climate in Africa, the United States, and England. Both factors can furnish clues to transportation, roads, and economic conditions. Planning, building, and the use of libraries are essentially dependent on roads and on the availability of capital. Closely related to geography and climate are demographic factors, which include such matters as total number of inhabitants; education levels, especially literacy; racial composition; age groups; and urban-rural distributions. Demographic factors are important when planning most types of services and systems, including libraries.

The extent of a nation's communication systems can bear directly on library developments. Communication includes languages and dialects; numbers of newspapers; availability of books and magazines and how well they are distributed; telephone and teletype links; film production; and radio and television. If we consider book production in vernacular languages, we immediately see that stocking a library with readable materials becomes a problem in a nation with many dialects and languages. Library development in Papua New Guinea is frustrated by the fact that over seven hundred languages are spoken in that nation. Providing reading materials for such a diverse population challenges library and educational leaders in that nation.

Economic systems have different meanings and values according to geographic locality. Currency does not have the same meaning in parts of the Pacific Islands as it has in Hawaii. As an example, bartering is still significant in Samoa. In this same vein, the term "free public library" does not have the same meaning to a government official in a country that charges a membership fee for using the public library.

Familiarity with library tradition and history is essential to an understanding of contemporary library events, as well as landmarks in a nation's library developments. The researcher should know something about existing library legislation, financial support, and other national and local conditions, for they will have direct bearing on goals and objectives. The existence of national plans and studies also has value for background and perspective, for the library/information infrastructure provides the framework for all comparative study.

The developing nations are exhibiting increasing recognition of information as a national resource, the increasing dependence on knowledge systems by those in positions of policymaking, and a need to continue to recognize and fulfill the unique information needs of the average citizen. Most of the so-called Third World countries are therefore in some stage of organizing library and information services. These countries have organized their services formally and are supported by a centralized government, or they are informally organized with only minimum government support.

There are some intriguing questions which researchers in the fields of comparative and international librarianship might consider for future research. One such question is what can a nonindustrialized nation offer to an industrialized

nation in terms of contemporary developments in librarianship? Can American librarianship learn from Nigerian librarianship? Can librarianship in Papua New Guinea learn from librarianship in Jamaica? It is hoped that this work will be helpful in dealing with such questions.

In the German sense of *Handbuch* this book is a compendium of facts on a central theme and is intended both for reference use and for general reading. Of course, not every country in the world can be represented in a work of this kind. The countries that are presented here as representative have library developments that are significant and more pronounced than those found in other countries. Many of the countries selected have made advances over the past thirty years which require detailed analyses of basic processes. All of the articles are original and are being published for the first time here.

Inasmuch as this book is about international librarianship, it is organized by regions (Africa, the Middle East, Asia, Oceania, Europe, North America, Mexico, and the Caribbean) and by countries within the regions. Sixty-five countries are represented in thirty-four chapters. All of the contributors are either natives of the country they discuss or have long been directly involved with library affairs of that country.

A project of this size and scope depends heavily upon the cooperation and good-will of scholars who must take time from their busy schedules to do the necessary research and write the manuscripts. A few scholars who had hoped to prepare chapters discovered they could not do so because of factors beyond their control. In some instances, the editor was able to obtain a replacement, but when he was not, then the country unfortunately was not included. Whatever success this book enjoys as a professional contribution to the body of literature of librarianship can be attributed to the enthusiasm of the authors. The editor takes full responsibility for any shortcomings the work may have in its style, organization, balance, and countries selected.

Finally, I extend a special word of appreciation for their counsel and criticism of parts of the book (Pakistan, France, and Pacific Islands) to Imre Bard and Renée Heyum and my graduate research assistant Larry Chazen.

MILES M. JACKSON

University of Hawaii at Manoa
Honolulu, Hawaii
*February 1981*

# CONTENTS