

The Role of archives and
records management
in national information
systems:
a RAMP study

General Information Programme and UNISIST

United Nations Educational,
Scientific and Cultural Organization

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THE ROLE OF ARCHIVES AND
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PREFACE

The Division of the General Information Programme of Unesco, in order to better meet the needs of Member States, particularly developing countries, in the specialized areas of records management and archives administration, has developed a long-term Records and Archives Management Programme - RAMP.

The basic elements of the RAMP programme reflect the overall themes of the General Information Programme. RAMP thus includes projects, studies, and other activities intended to:

1. Promote the formulation of information policies and plans (national, regional and international).
2. Promote and disseminate methods, norms and standards for information handling.
3. Contribute to the development of information infrastructures.
4. Contribute to the development of specialized information systems in the fields of education, culture and communication, and the natural and social sciences.
5. Promote the training and education of specialists in and users of information.

The present study, prepared under contract with the International Council on Archives - ICA - is intended to assist information policy and planning specialists; those involved in proposing, drafting and reviewing legislation and administrative regulations; and especially archivists and records managers, in creating and developing modern archival and records management systems and services, particularly in the public administration, as part of coordinated national information systems.

Comments and suggestions regarding the study are welcomed and should be addressed to the Division of the General Information Programme, UNESCO, 7 place de Fontenoy, 75700 Paris. Other studies prepared under the RAMP programme may also be obtained at the same address.

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1. INTRODUCTION.

The title of this study suggests that records and archives form an essential and significant part of a nation's information resources, and that programmes for their management and use are, or should be, integral parts of the national information system.

The purpose of this study is to provide information to decision makers about the essential character and value of archives, and about the procedures and programmes that should govern the management of both archives and current records. The study seeks to demonstrate the cultural, social, and economic benefits that can accrue to a nation through the preservation and use of its archives, and the significant economies and improved efficiency that will result from comprehensive records management systems and services.

Records are a basic tool of administration. They are the means by which many operational processes and functions are performed. They include all recorded information created or received by an organization in the course of performing its business. Records often take the form of conventional documents on paper, but they may also be in microform, or on machine-readable media such as computer tapes or disks, and they include photographs, sound recordings, motion pictures, and all other media on which information may be recorded or conveyed in the process of performing an organization's functions.

Archives are non-current records that have been formally appraised, and found to have continuing or permanent values as evidence or for research purposes.¹ They normally amount to only a small percentage of the great mass of records from which they are selected, but they are useful and valuable in an almost infinite variety of ways.

They serve first of all as the nation's memory, and enable a society to plan intelligently for the future based on an awareness of past experience. Archives preserve a record of the obligations and commitments of the government and evidence of the rights and entitlements of the citizens. Collectively, the archives contain a vast amount of information about people, organizations, social and economic development, natural phenomena, and events---invaluable primary source material for writing about all facets of the nation's history. As a source of national history the archives can become a powerful influence in fostering a people's understanding of itself and in creating a sense of national identity.

The focus of this study is on the records and archives of

¹It should be noted that in France and other francophone countries the term "archives" is used for all records, current records being designated as "administrative archives."

government, and more particularly on those of the national or central government. However, the programmes and procedures that are necessary to the proper management of governmental records and archives apply with equal validity to the records and archives of commercial enterprises and other non-governmental organizations and institutions. In the aggregate the informational values of the archives and records of these organizations may rival those in the possession of the government and thus play a very important role in the national information system.

Finally, this study identifies and describes the elements that together comprise a comprehensive programme for achieving economy and efficiency in the management of current records, and for systematically identifying, preserving, and encouraging the use of archives. These programme elements may be categorized under the following four major headings or phases representing the total life cycle of records.

The records creation phase includes the elements of forms design and management, the preparation and management of correspondence, the management of reports and directives, the development of management information systems, and the applications of modern technology to these processes.

Records use and maintenance is a phase encompassing the development of filing and retrieval systems, files management, mail and telecommunications management, the selection and management of office copying machines, systems analysis, the development and maintenance of vital records programmes, the operation of records centres, and the application, as appropriate, of automation and reprography to these processes.

The records disposition phase includes the identification and description of records series, the development of records retention and disposition schedules, records appraisal, records disposal, and the transfer of permanently valuable records to the archives.

Archives administration encompasses the design and equipping of archival repositories, methods and processes for the repair and conservation of archives, development of access policies, reference service procedures, and the dissemination of archives and archival information. A number of these elements are increasingly dependent on the use of computers and micrographics.

An elaboration of each of the foregoing elements will be found in the pages that follow.

2. THE UNIQUENESS AND VALUE OF ARCHIVES

2.1. The Essential Character of Archives.

All records, of any physical type whatsoever, received or created by entities of government are normally considered to be public property. It is from this vast pool of documentation that the archives are selected. Usually only a small proportion of them---possibly as little as two to five percent---have sufficient value for administrative, legal, or research purposes to warrant permanent retention. But this small core of non-current permanently valuable records---archives---possesses tremendous value, because the information it contains is essential as evidence of important legal and administrative transactions and obligations, and because much of its informational content is of value for purposes that extend beyond the reasons for its initial creation. Among the latter category will be found the records that document wars and natural phenomena, the migration of peoples, the birth and development of the national identity, the efforts of government to improve the lot of the people economically and socially, the successes and failures that are the results of all sustained human activity. As one authority has noted, "the modern world entrusts to archives an important part of itself, since society makes its archivists responsible for choosing on its behalf what its memory will be tomorrow."¹

2.1.1. Definition, Legal Character and Status.

The word "archives," meaning a body of non-current permanently valuable records, applies also to their place of deposit or a building dedicated to their care and use, and to the organization or agency responsible for administering them.

The process by which the archives are selected from among the great mass of official records is usually known as "records appraisal." It involves making a considered and formal judgement, often after considerable research, that certain records (usually complete series or major file subdivisions) have enough value to warrant a considerable and continuing expenditure of funds for housing and preserving them.² The records appraiser will seek answers to all or most of the following questions, and possibly others as well:

Do the records contain information that is likely to be needed again by the creating authority or other units of

¹J.H. d'Olier and B. Delmas, Planning National Infrastructures for Documentation, Libraries and Archives: Outline of a General Policy, Paris, UNESCO, 1975 (Documentation, Libraries and Archives: Studies and Research, 4), p. 233.

²The process of records appraisal is described in greater detail in Section 3.1.3.3.

government?

Do they document important, or precedent setting, decisions or transactions?

Do they shed significant light on how important decisions were reached?

Do they document long-term obligations to other countries, other units of government, non-public organizations and institutions, or individuals?

Will the information they contain eventually be made generally available?

Do the records contain information that casts important light on people, places, things, phenomena, or other events that will be useful to researchers---scholars of various disciplines, lawyers, journalists, writers or genealogists?

Is the information unique, or are there other available sources that contain essentially the same information in a readily-usable form?

Are the values possessed by the records purely informational, or are intrinsic values present that are related to the circumstances of their creation? Are they signed or executed, for example, by the chief legislative or judiciary authorities, or by the head of state or important ministers? Do they bear the signatures of important literary, artistic or scientific figures? Are the records themselves of artistic merit or cultural significance?

The assessment of users' needs---present and potential---obviously has an important, if sometimes implicit, role in the process of records appraisal.

The archives of a government may be seen, therefore, to be not only an essential part of its institutional memory, but a major cultural and scientific information resource, together comprising a significant, basic and versatile element in the national information system. The archives deserve to be properly housed, carefully preserved, and generally available to all who would benefit from their use. They have a unique value, and should have a unique status. They are an essential part of the national domain, and must be kept legally and physically in the custody of the government.

2.1.2. Physical Types of Archives.

Until fairly recently most official transactions were accomplished by means of paper documents: letters, memoranda, accounts, deeds, directives, orders, reports, forms and other written or typed records. Such materials still form the largest body of record materials in practically all archives. Modern technology,

however, is rapidly changing the way in which government authorities conduct their affairs, and thus altering the nature of archives---present and future. The invention of the printing press, and during the nineteenth century the typewriter, have had an important effect on the physical characteristics of archives. Photography has had at least an equal impact---encompassing pictorial records, cinematographic records, aerial photography, and microphotography. The widespread use of sound recording has accompanied and complemented various photographic processes. Perhaps the most profound technical innovation of all time affecting records creation and use is the computer. It is revolutionizing our lives in innumerable ways, many of which have to do with the creation and manipulation of information. The further we advance into the computer age, the greater will be the reliance of government and other segments of society on computers to handle matters that once were documented solely on paper; and the proportion of information in archival repositories on machine-readable media may be expected to increase exponentially.³

Archives may thus be seen to take many physical forms, each of which has its own special requirements for storage, preservation and use. The major categories may be briefly described as follows:

Manuscripts: writings on paper (in some cases parchment, vellum or other media as late as the nineteenth century) usually using as an inscribing medium ink or pencil, applied manually or by typewriter.

Cartographic and architectural records: many of these are manuscripts also, but rely substantially on graphic presentations in addition to writing; an increasing number of cartographic and architectural records are, of course, printed or otherwise reproduced.

Audio-visual materials: negatives and prints of still photographs and motion pictures; video tapes; sound recordings on cylinders, disks, wire and magnetic tapes; microfilms, microcards, microfiche and computer output microfilm and microfiche (COM).

Machine-readable records: information of record character that is created, stored, manipulated, reproduced or displayed by use of computers or other electronic data processing devices.

Printed archives: in a number of countries it is the task of the national archives to maintain at least one copy

³See Lionel Bell, "The Archival Implications of Machine-Readable Records," Archivum, vol. 26 (Proceedings of the 8th International Congress on Archives), 1979, pp. 85-92.

of each pamphlet, leaflet, book or other printed item produced by the government; this responsibility, in some archives, results from the statutory designation of the archives as the place of legal deposit for all, or a part, of the national production of printed literature.

It might be noted here, parenthetically, that both micro-reproduction and the computer are increasingly versatile and powerful tools for accomplishing a variety of administrative tasks in archival repositories, as well as serving as the means of recording permanently valuable information which eventually comes into archival custody.

2.2. Preservation of Archives.

Once it has been determined through the appraisal process that certain records are worthy of permanent preservation as archives, the most basic task of archivists is to ensure the preservation of these materials. To those who might argue that information dissemination and related processes are primary, it must be pointed out that an archives without a sound, well-financed preservation program will eventually have no information to disseminate.

The problems of preservation are becoming more complex, difficult and expensive as additional recording media find their place in archives. In spite of this, the duty to preserve accessioned materials is an essential one, which, inter alia, provides a powerful incentive for records appraisal decisions that are judicious and selective.

2.2.1. Design and Maintenance of Archival Repositories.

A basic requirement for the preservation of archives is a properly designed and well-maintained repository. Because archival storage requirements and work processes are in many respects unique, it is preferable for archives to be housed in structures especially built for the purpose, which are not shared with organizations performing other kinds of functions.

If this is not feasible, existing buildings can often be modified for archival use. If the facility must be shared, organizations with compatible functions, such as libraries or museums, are the most desirable co-tenants.

Whether the archival repository is purpose-built or not, and whether the archives is the sole tenant or not, there are a number of elements of design and equipment that are necessary to ensure optimal protection and preservation of its contents.⁴ They

⁴Useful planning and design criteria appear in Bernard Faye, "The Design of Archival Buildings," Unesco Journal of Information Science, Librarianship and Archives Administration, vol. 4, no. 2,

include the following:

Fire-resistive (and tremor-resistive)⁵ construction.

Perimeter security safeguards for records storage areas, including steel doors, good locks, and intrusion alarm systems.

Smoke detection and alarm systems.

Automatic sprinkler systems with assured adequate water supplies.

Portable fire extinguishers.

Steel shelving.

Fire-resistive furnishings.

Temperature, humidity (and air pollution) controls.

Other essential elements and features are:

Adequate facilities for researchers and working space for staff.

Reprographic workshop facilities.

Conservation and preservation workshop facilities.

Protected loading docks.

A site that is not subject to flooding.

Highly desirable, although not absolutely essential, are exhibition space, an auditorium, conference rooms and a site large enough to permit expansion.

Proper and periodic maintenance of electrical, alarm and sprinkler systems, and frequent refuse removal, are very important. Storage of inflammable liquids and other dangerous materials on the premises must be avoided.

The archives staff should be well-trained in fire prevention

April-June 1982, pp. 88-93. The importance of proper housing for archives, and for "preventive conservation," is set forth in Y.P. Kathpalia, "Conservation and Preservation of Archives," Unesco Journal of Information Science, Librarianship and Archives Administration, vol. 4, no. 2, April-June 1982, pp. 94-100.

⁵Elements enclosed within parentheses () may not be necessary in all locations, but will be essential in others.

and in steps to be taken in the event of fire or other disaster, and periodic refresher exercises should be provided.

2.2.2. Conservation Methods and Processes.

In addition to provision of secure, environmentally controlled storage facilities for archives there are a number of widely used processes or techniques for repairing or extending the life of archival materials on paper. Prominent among them are:

Microfilm reproduction: records may be microfilmed and users required to use film copies in lieu of the originals; this may serve as a preventive measure, to prevent wear and tear through frequent handling, or to prevent additional harm to already damaged or fragile materials; although microphotography of archives is not an inexpensive process it is the least expensive means of preserving complete record series or major file segments.

Other means of copying: xerography, and other means of reproducing documents on durable acid-free paper, can serve essentially the same ends as microphotography; unit costs tend to be slightly higher and the bulk of the newly created reference material is much larger; however special reading devices are not needed.

Deacidification: most paper contains acids which eventually lead to its disintegration; alkaline baths or sprays will neutralize the acids and substantially prolong the life of the paper; the process will remain expensive until some means of mass-deacidification can be developed.

Lamination: the application of thin, transparent sheets of acetate foil to both sides of a document, which are then bonded to the paper with heat and pressure, usually after deacidification of the paper; this process has been extensively used in many archives but seems currently to be losing favour because of damage caused by the very high temperature that is an intrinsic part of the process.

Encapsulation: placement of a document within sheets of transparent mylar and sealing of all edges, usually after deacidification of the paper; the use of this process is gaining favour at the expense of lamination as it requires substantially less in the way of equipment, is more easily reversible, and does not require the application of heat to the document itself.

Rebinding: of records contained in books or bound volumes, using acid-free binding materials.

Acid-free storage materials: all acidic file folders or containers should be discarded and replaced with acid-free folders and storage containers.

A properly staffed and equipped conservation facility will be able to relate the condition and physical character of a document to the most appropriate means of conservation, which may, in addition to the processes described above, include leafcasting, repairs using such traditional materials as tissue and silk, and other means of manual repair such as hand lamination, a labour intensive process that does not require the application of heat.

The primary means of preserving the contents of audio-visual and machine-readable records is through copying them, before the onset of deterioration, onto the most durable high-resolution medium available. Photographic materials require an acid-free storage environment; and magnetic media, such as audio, video, or computer tapes, must be stored in non-magnetic containers and protected from all high intensity electrical and magnetic fields. The deterioration of colour photographs and motion pictures can be substantially retarded by cold storage.

The conservation methods of the future will almost certainly be affected by research efforts now underway in many countries. Collectively this research is producing a clearer understanding of the physical and chemical characteristics of paper and other recording materials and the reasons for their eventual deterioration.

2.3. Access to and Dissemination of Information in Archives.

Archives are selected from among the great mass of records, and are preserved, for one primary reason---so that they may be available for use by those needing the information they contain. During the past thirty years or so, many archives have moved away from what was essentially a passive stance (making records available on request if there was no objection by the transferring authorities to their use) to an active role involving efforts to make the research materials in their custody available as soon as national security and personal privacy considerations permit, undertaking outreach programmes aimed at informing potential users of their content and availability, and actively encouraging the exploitation of archives as a means of bettering society.

A well-conceived programme of access and dissemination involves (1) a resolution of any contradictions between the public's right to information and personal privacy rights, (2) appropriate facilities for research use of the archives, and (3) a sustained professional effort to ease the role of the researcher and the archival staff through production of indexes, inventories, guides and other means of disseminating information about the provenance, organization and content of the archives.

2.3.1. Considerations with Respect to Access.

Once records have been appraised as having permanent value they are formally accessioned by the archives. Accessioning involves not only physical transfer to the archival repository but usually a formal transfer of title from the creating agency

to the archival authority as well. An essential element in this transfer of physical and legal custody is a mutual agreement on the terms of access. This agreement should make clear when the records may be made generally available for research use and whether there are any types of records or categories of information contained in the accession that may be released earlier or that must be withheld for longer, clearly defined, periods of time.

It is frequently possible to appraise records as having permanent value some years prior to their transfer to the archives. To transfer them while they are in frequent use by the creating agency will engender administrative problems for the agency and may involve a level of reference service by the archives that it cannot afford. If the records cannot be made generally available to the public for some years to come there is little point in encumbering space and facilities in the archival repository with what is essentially dead storage, unless there is reason to believe that they will meanwhile suffer damage or dispersal at the hands of the creating agency. Some authorities recommend, however, that transfers to the archival repository should take place about five years before the records will be opened for use.⁶ This allows time for the archivists to familiarize themselves with the records, screen them if necessary for materials that must be withheld for longer periods, perfect their organization, take necessary preservation measures and prepare at least rudimentary finding aids.

In many countries there is a statutory period of years (most commonly 30), after which records may be made generally available. Almost always, however, there is provision for keeping certain kinds of records (usually those relating to national security measures and those which, if prematurely released, might violate personal privacy rights) closed for longer periods of time. In many cases there is also provision for making nonsensitive records available before the statutory period has expired. In a few countries, particularly the United States of America, the problem of access is dealt with rather differently. The U.S. "Freedom of Information Act" requires all agencies in the federal executive branch to make promptly available upon request records or information in their custody as soon as it is created, so long as it does not fall within a few stated exempt categories. Records thus exempted from immediate release are generally made available in no longer than 30 years.

Regardless of the approach to this problem, and the specific provisions that may be made, it is important that there be a national policy on access to official records that is logical and

⁶Philip Sewell, A.W. Mabbs and E.M. Broome, Establishing a Legislative Framework for the Implementation of NATIS, Paris, UNESCO, 1977 (CC. 76/NATIS/8), p. 50.

all-encompassing. The absence of such a policy will cause inconsistencies on access within the governmental framework and the unnecessary withholding of much useful information.

2.3.2. Archival Reference Service Requirements.

There are three basic requirements for archival reference service: (1) a trained staff, knowledgeable about the records in custody and their potential uses for research purposes; (2) finding aids that will disclose essential information about the provenance, organization and content of the records (see Section 2.3.3.); and (3) facilities for the use and reproduction of the records.

All archival repositories should have one or more reading rooms, sufficiently spacious to accommodate the maximum number of persons likely to wish access to the records at any given time. Each reading room should be staffed with enough personnel to afford prompt responses to researchers' requests and questions, and to exercise surveillance to prevent theft of research materials. The reading rooms should be well-illuminated, and equipped with tables constructed so as not to obscure any materials on them, and with comfortable chairs. A complete set of the repository's finding aids should be readily available for researchers' use, as should certain standard reference works.

As a security measure some archives allow the researcher to bring only blank paper, personal notes, and pencils into the reading room, and require that all coats, hats, brief-cases and the like be deposited in a cloakroom or in lockers. A number of archives require researchers to submit to a search of all materials in their possession upon departure. All archives should require researchers to sign in and out for each reading room visit, noting the date and time. Archives should also require identification and registration of all researchers and maintain a dated record of which materials have been provided to whom.

Large and medium-sized archival repositories, and some smaller ones, have additional reading rooms for persons using records not in conventional manuscript form. Special furnishings and equipment are necessary for using oversized materials (maps and architectural plans), microfilm, sound recordings, motion pictures and machine-readable materials, and these requirements can best be accommodated in separate quarters. Some archives also provide separate rooms for researchers making use of typewriters, audio recording devices and other equipment that might disturb other researchers.

As a rule records that may be seen may also be copied, and most researchers expect an archival repository to be able to respond, within a reasonable time, to requests for copying services either in the form of paper reproductions or microcopies. The repository should therefore have at its disposal, preferably on its own premises, equipment and staff capable of reproducing any materials in its custody. The researcher should expect to pay a fee for these services that covers at least the cost of labour,

materials and depreciation of equipment.

Not all reference service will be carried on through the personal visits of researchers to the repository. The archives staff should not be expected to perform research in the records for persons who cannot or choose not to come to the repository. The staff should, however, be prepared to provide information by letter or telephone about the records and to furnish copies of them by mail if the records are clearly identified or readily identifiable. Most archives will also lend, at least to the agency of origin, records that may be needed for current official administrative purposes. In such cases it is preferable to keep the period of loan as brief as possible and, if feasible, to furnish copies rather than the original records.

2.3.3. Dissemination of Archives and Archival Information.

Archives and archival information may be disseminated in a number of ways. Most archival repositories rely primarily on systematic description programmes which have as their end products a variety of finding aids designed to assist both staff and researchers in the task of locating needed information. Other means of dissemination include the publication of selected archives, either in printed editions or in microform, and exhibitions.

2.3.3.1. Description Programmes and Finding Aids.

One major distinction between the holdings of archival repositories on the one hand, and libraries and documentation centers on the other, is that archives are organic bodies of material produced over time in the conduct of official business, rather than collections of individual discrete items, i.e. books or journal articles. The informational and evidential value found in such an organic body is greater than the sum of its parts. Partly for this reason and partly because the individual documents in an archives are so numerous, the usual practice of an archival repository is to describe its holdings collectively. Typically collective description is either at the level of the fond or record group (all of the archives created by an organizational unit of some size and complexity), or the series (individual classes of material, of like character, and filed together in the creating office). In some cases, when records are likely to be used intensively, they may be described at the file folder or dossier level or even at the individual document level. The latter (individual document level) is rarely resorted to for voluminous modern files.

Because of their organic character, the most frequent organization of archival description is hierarchical, reflecting the functions of the creating agency. This presents challenges to archivists and users of archives alike because both must know something of the nature of governmental organization, and the tasks and functions performed by particular governmental units, in order to be reasonably certain of having located all information likely to be pertinent to a given research topic.

The description programme (preparation of finding aids) is thus the archival equivalent of bibliographic work in the library and documentation fields. Finding aids take many forms and selection of the best form for a given body of archives may depend both upon the nature and organization of the records themselves and the ways in which they are likely to be used by researchers. Among the most common types of finding aids are the following, proceeding from the general to the detailed.⁷

General guides: These usually describe in general terms the entire corpus of records in a given repository or a major subdivision within a large repository. The records are usually described either at the fond or record group level, or at the next lower hierarchical level, i.e. the sub-group level. These descriptions are usually preceded by a brief administrative history of the organization that created the records. A list of pertinent, more detailed, finding aids, published or unpublished, may follow the entry. A subject index to the guide as a whole is a most useful adjunct as a great variety of material is described in a general guide.

Examples of works of this kind include the French État des Fonds des Archives Nationales, in four volumes, and the Guida Generale degli Archivi di Stato Italiani, a multi-volume guide to all state archives in Italy, of which the first volume has recently been published.

A general guide is usually the first finding aid a prospective user of the archives will wish to consult as it provides an overview of all the research resources in the repository and allows the user to plan his general approach to research. Although it is a useful reference tool for archivists on the staff of the repository a general guide is prepared primarily for the use of prospective researchers. It is a reference work that should be available for use prior to the researcher's visit to the repository. For this reason in particular it should be published and distributed widely both nationally and internationally. The repository should plan to publish supplements and/or revised editions of the whole every several years.

Topical guides: These are guides describing archives relating to a major subject or theme. Any major topic for which there is a wealth of archival material lends itself to the compilation of a topical guide. Examples might include the role of women or of major ethnic groups in society, a war or period of social upheaval, a significant geographical area, a major function of government, such as diplomacy or some aspect of social welfare, or sources suited for the use of a particular discipline such as economic history, the

⁷Archival nomenclature is not yet fully standardized and similar types of finding aids may be identified by different names in different countries. The generic terms used here conform generally with usage in the United States of America.

history of science and technology, or genealogy.

A major variant of the topical guide is the multi-institutional guide, drawing upon the resources of a number of archival repositories for information on a broad topic. Some multi-institutional guides are international in character. The outstanding example of this class of guide is the Guide to the Sources of the History of Nations, produced under the sponsorship of the International Council on Archives (ICA). Published in three major series---Latin America, Africa South of the Sahara, and North Africa, Asia and Oceania---the Guide encompasses individual volumes produced by the major national archives of Europe and North America, covering the archival and manuscript resources in those nations relating to the history of the regions covered by each series of the Guide. Thus far, 25 volumes have been published, 11 in the Latin American series, nine in the sub-Saharan African series, and five in the series covering North Africa, Asia and Oceania.⁸ The elaboration and completion of each series has been co-ordinated by a special committee of the ICA. UNESCO has contributed substantially to the funding of this landmark international enterprise.

Because of the selective nature of the information embodied in topical guides the descriptive entry is often at the record series level, although in some cases the sub-group, or fond or record group, level might be appropriate. As in general guides, statements on the provenance of the records, listings of pertinent finding aids and a general index are most useful. Topical guides obviously deserve publication and wide distribution; this is especially true in the case of multi-institutional guides.

Inventories or registers: In many archives the basic reference tool is the inventory or register, which describes the records in a single fond or record group. A brief administrative history of the creating agency should appear first. The internal organization of the finding aid is usually hierarchical, reflecting the organization of the unit of government which created the records. The records are usually described at the series level and each entry includes information on their chronological span, physical bulk and arrangement, as well as a succinct summary of their informational content. In some cases annexes are included containing such materials as filing schemes, lists of folder headings and other compilations of information useful to researchers. Inventories or registers are detailed enough to be of considerable use to the archival staff as well as to researchers. In some smaller archival repositories they are not published but maintained in a number of typescript copies for use within the institution. In larger repositories it is frequently the practice to publish---in near-print, paper bound, limited editions---those inventories or registers likely to be in substantial demand by potential users. In recent years there has been some movement in the direction of making

⁸See International Council on Archives, Directory 1982, Paris, 1982, pp. 67-69.

these kinds of finding aids available in microform editions.

Other archival finding aids: The production of other types of finding aids will depend upon the particular characteristics of the records involved and on patterns and volume of usage. For some heavily used records it may be cost-effective to describe documents at the individual case file or dossier level or even at the individual document level. Individual entries may be on index cards or take the form of calendars (brief summaries of individual documents usually arranged chronologically). For certain kinds of records, used mainly by persons wishing to locate discrete items of information, the archives may find it useful to compile lists: of persons, places, ships, transactions, court cases and the like. Description of the kinds just described should be approached with considerable caution, however, and should not be undertaken unless it is clear that the manpower expenditure will be compensated for, within a reasonable time, through saved labour costs in providing reference service to users.

Agency produced finding aids: Not infrequently the agency of origin will have produced finding aids to assist its staff in the prompt and consistent filing of records, and their rapid and comprehensive retrieval for ongoing administrative purposes. These may take the form of correspondence registers, dockets, subject indexes, and filing manuals, among others. It is of benefit---to the agency of origin, the archives staff and future researchers in the archives---for such finding aids (or copies of them) to be accessioned with the records to which they pertain.

Computerized archival data bases: During the past ten or fifteen years a number of the larger archival repositories have begun experimentation looking toward developing computerized data bases of archival descriptive data. In a number of repositories these efforts have passed the experimental stage and are now embodied in ongoing, substantive programmes. In some repositories most finding aid compilation and publication is now effected through these programmes. In the United States of America several archival repositories have joined in the use of the SPINDEX III programmes, with the prospect in view of a fairly extensive network for the computerized accumulation, manipulation and exchange of archival descriptive information. On-line querying of archival data bases now seems technically feasible, even though in any given repository it is likely that no more than a fraction of available descriptive data has yet been computerized.⁹

⁹For a fuller exposition of computer use in archives see Michael Roper, "New Information Technology and Archives," Unesco Journal of Information Science, Librarianship and Archives Administration, vol. 4, no. 2, April-June 1982, pp. 107-113.

2.3.3.2. Other Means of Archival Information Dissemination.

The preceding section has dealt with means of disseminating information about archival materials. This section discusses programmes for the dissemination of the content of the archives themselves through printed editions of selected documents, photographic facsimiles (usually in microform) of entire record series or file segments, and exhibition of original documents or facsimiles thereof.

Documentary publication: This may be accomplished either through conventional means of publication or through micrographic publications. Because it is expensive documentary publication in book form is usually done on a highly selective basis. The authentic texts of the most important documents dealing with a given subject, together with necessary editorial annotation, are printed in one or more volumes. In many instances the archival repository serving as the seat of the documentary publication project seeks pertinent documentation from a wide range of other repositories to ensure as full and balanced a presentation as possible. As a matter of fact, full and balanced coverage may require cooperation on the international level.¹⁰ Today, because it is less expensive and faster, a far larger volume of documentary source material is made available through microform publication. Microform publication, using either roll film or microfiche, usually involves filming complete series of records in archival custody for which there is likely to be a continuing demand at a modest level. The editorial apparatus, as a rule, is less extensive and complex than in documentary publications in book form. The microform publication should, however, be accompanied by a pamphlet or booklet which provides information about the provenance of the archives and detailed information about their organization and the content of each roll of film or set of fiche. The issuing archival repository maintains a master microform used only for the purpose of reproducing reference copies on demand. Some selective, book-form documentary publications are supplemented by a comprehensive edition of all available pertinent documentation which is made available only in microform.

Archival exhibitions: The means of disseminating archival information that have been discussed thus far are primarily for the benefit of scholars and other professional researchers. In every country, however, there is a much larger group of potential beneficiaries of archival source materials---individuals from every walk of life who have a lively and informed interest in the history

¹⁰An example of this kind may be found in the volume entitled The United States and Russia: The Beginning of Relations, 1765-1815, edited jointly by the foreign affairs ministries and the national archives of the Union of Soviet Socialist Republics and the United States of America, and published simultaneously in Russian and English texts in Moscow and Washington in 1980. The documents published in this work were drawn from a large number of archives and manuscript repositories in both the U.S.S.R. and the U.S.A.

and culture of the nation. These "laypersons" can have a powerful and positive influence on the levels of support (tangible and otherwise) that the government bestows on its national institutions. A programme of archival exhibitions using the original source materials of history, if effectively and attractively carried out, can attract the attention and support of this group and become an important instrumentality of popular education at all age levels. The exhibition programme can encompass a number of elements: exhibitions of original documents, photographs and associated memorabilia on the premises of the archival repository itself; loans of original documents (under careful safeguards) or facsimiles for incorporation in exhibitions sponsored by other organizations and institutions; traveling or circulating archival exhibitions comprised of good quality reproductions; and the availability, for sale to the public at modest cost, of handsome facsimiles of well-known historical documents, reproductions of seals and colour photographic slides and postal cards depicting archival treasures.

Public relations: Information about the foregoing means of archival dissemination, in particular programmes such as exhibitions that are intended to attract public attention, should be circulated as widely as possible through press releases, notices and announcements on radio and television, and other means. In fact, information concerning programmes, activities and accomplishments of the archives, or about historically significant or interesting documents recently acquired or opened for research, should be broadly disseminated to the general public or to those segments of the public most likely to be interested. An active public relations programme can contribute significantly to establishing a positive identity for the archives in the minds of legislators, opinion makers and the public at large.

2.4. Research Values of Archives.

Archives, reflecting as they do the entire gamut of significant governmental activity, have a very broad range of research values. They serve, first of all, as the collective institutional memory of the government and of its component parts. As such, archives are an essential tool in behalf of administrative efficiency and economy, by providing ready access to the government's past experience, including its successes and failures, and by furnishing precedents when problems and challenges arise that are similar to those faced in the past. In their role as the institutional memory archives can also contribute significantly to economic and social development, particularly in developing countries, because they are a unique source of information on earlier developmental initiatives, and of demographic, economic and social information useful in planning and development on a local, regional or national scale. Archives also contain vital documentation of the identity, rights, privileges, entitlements and responsibilities of individuals and organizations. Most of the foregoing research values of archives relate, in greater or lesser degree, to the purposes for which the government created the records in the first place.

A second major category of research values has little, if anything, to do with the purposes for which the records were created. These values exist because the archives contain information about people, organizations, social and economic developments and trends, natural phenomena and events of all sorts that is useful for research and writing with respect to all facets of the nation's history. Although in most national archives the bulk of such research is broadly historical in character, the range of subjects is extremely wide as are the purposes for which the research may be conducted. Similarly, the categories of researchers may be numerous and will likely include academic scholarly researchers, students at the graduate and undergraduate levels, genealogists, journalists, other writers---amateur and professional---and producers of audio-visual presentations for radio, television and the cinema.¹¹

The several research values of archives that have been briefly surveyed above are discussed in greater detail in the sections which follow.

2.4.1. The Value of Archives in Promoting Administrative Efficiency and Economy.

Any government, or agency thereof, will have a frequent need to refer to records it has created in the past---to verify past decisions and continuing obligations, to determine precedents, to conduct ongoing research operations, and for a host of other legal, administrative, political and diplomatic reasons. If these records are disorganized, difficult of access, lost or capriciously destroyed, it is obvious that a wide range of decisions and actions will be faulty, ill-conceived and erratic, and will require expen-

¹¹The increasingly diverse research uses of archives are reviewed in Iván Borsa, "The Expanding Archival Clientele in the Post-World War II Period," Archivum, vol. 26 (Proceedings of the 8th International Congress on Archives), 1979, pp. 119-126. This topic was updated and elaborated upon in several papers presented at the Ninth International Congress on Archives, London, 15-19 September 1980, which may be found in Archivum, vol. 29 (Proceedings of the 9th International Congress on Archives), 1982: Claire Berche, "L'Utilisation des Archives par le Grand Public" (pp. 113-123); Charles M. Dollar, "Quantitative History and Archives" (pp. 46-52); César A. García Belsunce, "El Uso Práctico de los Archivos" (pp. 77-86); Rainer Gross, "Archive im Dienst der Technik" (pp. 87-92); Erzsébet C. Harrach, "Archive und Stadtentwicklung" (pp. 93-98); Maina D. Kagombe, "Oral History and Archives" (pp. 53-57); V.V. Khmeleva, "Les Moyens d'Information et les Archives" (pp. 129-134); Jan Lindroth, "Contemporary History and Archives" (pp. 58-63); James W.M. Moore, "The Economic Exploitation of Archives" (pp. 99-102); Hugh W.L. Payne, "Education and Archives" (pp. 124-128); L.S. Principe, "Everyman and Archives" (pp. 135-142); and Michael Roper, "The Academic Use of Archives" (pp. 27-45).

diture of inordinate amounts of time in searching for needed records or in "re-inventing the wheel." If, however, important non-current records have been systematically deposited in the national archives and properly preserved, organized and described, the archival staff will be able to quickly find and furnish the records to government officials having need of them. The role of the archives as the government's institutional memory becomes ever more important with the passage of time. With the turnover of officials and employees the government is forced increasingly to rely less on the personal memories of individuals and more on the institutional memory embodied in the archives. Thus the lack of a professionally designed and managed archival institution is certain to cause increasing confusion, inefficiency, mis-management and expense throughout the governmental structure. On the other hand a properly supported professional archival service will have almost immeasurable value in promoting sound decision-making and administrative efficiency and economy on a broad scale.

2.4.2. The Contribution of Archives to Economic and Social Development.

Closely related to the role of the archives as the government's institutional memory (and, indeed, a part of it) is the potential contribution of the archives to national economic and social development. This is particularly true in developing countries where much of the impetus for development, and the responsibility for it, rests with the national government.

2.4.2.1. Archives as an Information Source on Past Programmes, Measures and Procedures.

Economic and social development may be viewed as a continuum of efforts by modern governments to create physical and social infrastructures that produce wealth and apply it, or a part of it, to the social betterment of people. This conception is valid, to at least a limited extent, for most of the colonial regimes which antedated the national governments which have come into existence since the end of World War II. If viewed as a continuum of efforts, then, most new initiatives are based in some degree on previous ventures. Even though the context in which certain new initiatives are undertaken may be quite different than for earlier ones, a knowledge and understanding of previous efforts is likely to have considerable value. It is thus important to have ready access to a full account of the programmes, measures and procedures that have been proposed, attempted or implemented in the past, as well as data to support the reasons why they may have failed, been abandoned, or succeeded. If this information is available in the national archives and used in current decision-making, governmental actions will be more likely to be soundly based and successfully implemented. There is less likelihood of unnecessary risk or failure and the resulting waste of scarce resources.

2.4.2.2. Archives as a Source of Demographic, Economic and Social Information for Planning and Development.

All governments, in the normal course of performing their basic functions, acquire substantial quantities of information on population characteristics; on vital statistics (births and deaths); on the functioning of agriculture, industry and trade (both domestic and foreign); on social welfare programmes (including social security and pensions, assistance to the indigent, population control, health and medical services and nutrition programmes); on literacy, education and training; and on social behaviour (marriages and divorces, crime and other matters adjudicated by courts of law).

Some of these kinds of information are actively and systematically acquired through periodic censuses and economic surveys. Others are received and recorded in a more passive manner at the time of individual application for such things as social services, marriage licenses or export permits. Still others are mandated by the government incidental to such functions as assessment and collection of taxes.

Although not all of these kinds of information warrant indefinite retention at the lowest level of detail, cumulations and detailed summaries of the information are clearly of value in a variety of ways. In some instances they are necessary for the current conduct and future planning of important governmental functions. All of them are of value in measuring social and economic change and progress over time. Because these kinds of information reflect the status and activities of either the entire population or large segments of it, they are of inestimable value as source materials for social planning and for planning future economic development for localities, for regions and for the nation as a whole.¹²

Without recourse to such information in the nation's archives planners may be required to conduct expensive and time-consuming surveys to acquire it for their immediate purposes, or else face the serious and potentially catastrophic risks involved in making important planning decisions without a solid informational base.

¹²For discussions of the value of archives in national development efforts see F.R.J. Verhoeven, The Role of Archives in the Public Administration and the National Planning Policy of Developing Countries with Particular Reference to Southeast Asia, Paris, UNESCO, 1972 (COM/WS/284), pp. 43-47; Jean-Jacques Valette, Le Rôle des Archives dans l'Administration et dans la Politique de Planification dans les Pays en Voie de Développement, Paris, UNESCO, 1972 (COM/WS/281), 79 p.; and Guy Cangah, "L'Utilité Particulière des Archives dans les Pays en Voie de Développement," Archivum, vol. 26 (Proceedings of the 8th International Congress on Archives), 1979, pp. 171-174.

2.4.3. The Value of Archives in Documenting the Rights, Privileges and Responsibilities of Individuals and Organizations, and of the State Itself.

In every nation the individual citizens owe certain obligations and responsibilities to the state, and the state, in turn, owes certain rights to, and confers certain privileges upon, the citizens. A similar relationship prevails between the state and a wide range of organizations, institutions and corporate bodies. The documentation of these relationships and obligations in the nation's archives is obviously vital both to the state and to the individuals and organizations which comprise the nation.¹³

Thus it is important to the individual to be able to obtain evidence of birth or citizenship in order to qualify for a variety of benefits or entitlements, and evidence of military or civilian government service in order to qualify for pensions or other benefits. The same kind of evidence is important to the state in seeking to compel individuals to perform military service or fulfill other kinds of obligations to the state.

A record of contractual arrangements between the state and individuals or organizations is likewise essential to both parties. When the state issues permits, licenses or charters permitting individuals or organizations to engage in certain enumerated activities it is also essential to both parties that a record of that action be publicly maintained.

In a larger sphere it is essential for the nation to maintain a permanent record of its rights and obligations in relation to other states and the international community at large. Failure to preserve and have ready access to treaties, conventions and other international agreements will almost certainly lead to misunderstandings with other states and international disputes and conflicts.

Retention of many kinds of legal evidence in the national archives is thus essential to public order, equity and tranquility.

2.4.4. The Value of Archives to Primary Users and Secondary Users.

Although the most basic and essential task of a national archives is to serve the interests of the government itself, and to preserve and make available evidence protecting the rights of citizens, it has other responsibilities of far-reaching importance. Foremost among these is its role as a source of enlightenment and improvement for all segments of society.

Modern governments create and receive records relating to a

¹³See Guy Duboscq, "The Importance of Modern Archives for the Developing Countries," Unesco Bulletin for Libraries, vol. 17, no. 5, September-October 1963, pp. 259-263.

vast array of persons, places, things, transactions and events. The national archives should preserve the most important of these because they are useful for research in history, government, political science, geography, economics, social phenomena, science and technology, and other disciplines, and thus constitute a major national repository of primary source material which may and should be exploited in the interests of society.

While the archives will faithfully reflect the activities of government, and thus constitute an authentic source of information, it should be noted that authenticity cannot in every instance be equated with truth. Inadvertent factual errors occasionally will find their way into government records. Opinions expressed in writing to government entities can reflect individual biases or lack of full understanding of an event or transaction. Records of government may sometimes even embody deliberate efforts to deceive. Thus persons conducting research in the archives must be prepared to face occasional factual contradictions, and be able to evaluate differing versions of events in the quest for truth.

Not every citizen possesses the skills, resources, or inclination to use the archives personally in the way one might use a library. In most cases the individual will benefit from the archives through the labour of intermediaries who may be defined here as the primary users. These are the persons who individually, or occasionally in teams, mine the rich ore of the archives and distill it through their skills in research, writing and other forms of presentation into books, theses, research papers, journal articles, newspaper stories and audio-visual presentations. These productions become available to a much broader circle of beneficiaries of archival research comprising the secondary users.

The primary users are scholars, graduate students, journalists, genealogists, other writers, and audio-visual media producers, whose creative work will be replicated in some form and made available to a wider audience.

The secondary users, who read or otherwise benefit from the work of the primary users, are comprised of specialists in various disciplines, the reading public, students of all ages and viewers of documentary cinematic and television presentations.

Through the active efforts of primary users and the more passive actions of secondary users the national archives can become a powerful resource in the education and cultural development of a national society and, indeed, in fostering understanding on an international basis.

2.4.5. The Archives as a Means of Developing the National Culture and Identity.

The archives of a nation, if properly organized, managed and supported, will come to embody a comprehensive account of the national experience. The archives will document the origins and migra-

tions of the people, the successes and failures of their leaders, the economic and social development of society, wars and natural calamities, and relationships with other peoples and nations. The information they contain constitutes a priceless national treasure which can be used for the betterment of the people in myriad ways.

The archives, if effectively exploited as an educational and cultural resource, can be invaluable in the process of developing a sense of national identity, and in fostering a people's understanding of itself and its relationship to the rest of the world.

3. THE ECONOMIC AND SOCIAL UTILITY OF RECORDS MANAGEMENT SYSTEMS AND SERVICES.

3.1. The Component Elements of Records Management Systems and Services.

A comprehensive records management system will be concerned with everything that happens to the records of an organization throughout their entire "life cycle," that is, from their "birth" through their active and productive life as means of accomplishing the organization's functions, to their "death" or destruction when all useful purposes have been served, or their "reincarnation" as archives if they have values warranting permanent preservation. The three basic phases of records management are usually defined as (1) records creation, (2) records use and maintenance, and (3) records disposition.¹

An effective records management programme requires leadership and direction from a central authority of government, preferably the national archival administration, plus the active involvement of the individual agencies in implementing the programme. To ensure the latter each agency should have a records management officer, designated either by the agency or the central authority, whose task it is to promote good records management practices within the agency and maintain liaison with the central authority.

3.1.1. Records Creation.

This first phase of records management is of particular importance because if performed effectively it will: (1) prevent the creation of non-essential records and thus decrease the volume of records that would otherwise subsequently need to be manipulated, controlled, stored and disposed of; (2) enhance the useability and usefulness of records that are needed; and (3) ensure an appropriate level of reliance on micrographics and automation, with the benefits they may bring to bear, throughout the life cycle. The specific elements of the records creation phase may be described briefly as follows.

3.1.1.1. Forms Design.

Forms design involves the selection of paper, and in some cases recording materials, most appropriate to the intended use of the form and the length of time it is likely to be retained; a determination of appropriate dimensions, dependent upon the way in which the form will be used and the amount of information required

¹A number of the following descriptions of elements of records management programmes roughly parallel those set forth in James B. Rhoads, The Applicability of UNISIST Guidelines and ISO International Standards to Archives Administration and Records Management: A RAMP Study, Paris, UNESCO, 1982 (PGI-82/WS/4), pp. 39-41, 44-46.

to be entered upon it; a concern for the clarity of instructions to the persons who will complete the form and the ease with which it may be completed; appropriate arrangement of data elements; and a determination of the number of copies of each form that will need to be completed.

3.1.1.2. Forms Management.

Forms management includes developing controls over the number of copies to be created and filed, assignment of a unique number or code to each form, ensuring that new forms are designed and issued when this is the most efficient way of recording needed information, and instigating the revision or cancellation of forms that are partially or totally obsolete. This element may also encompass the promotion and control, by an agency with government-wide authority, of a system of standard forms to accommodate the recording of comparable information in more than one agency. Personnel forms are an example of standard forms that would be useful in all agencies of government.

3.1.1.3. Preparation and Management of Correspondence.

As is the case with forms design, correspondence management is concerned with the quality and durability of paper and recording materials, especially with respect to retained copies of letters sent. It is also concerned with the format and clarity of letters and memoranda produced by the organization and with ensuring that their substantive content and style is appropriate to the occasion. It involves efforts to minimize the number of copies prepared and filed, as well as the number of administrative levels that must approve a letter before it is sent. Form letters in all their variants are a concern of both forms management and correspondence management.

3.1.1.4. Reports Management.

This specialized records management area is involved with the content and format of reports, their periodicity, and relationships between "feeder" reports and consolidated reports prepared at various organizational levels. It is also concerned with the assignment of a unique number or code to each series of reports, with controlling the number of copies of each report, and subsequent distribution and filing, and with cancelling or modifying reports that no longer meet the needs of those who receive them.

3.1.1.5. Management Information Systems.

These systems, which may or may not be automated, are an extension and outgrowth of reports management. The development of such systems involves a determination of what a manager, or a class of managers, needs to know in order to make informed management decisions, when the information is needed, the format in which the information will be most useful, and the mechanisms for ensuring that the information is developed and properly presented

in timely fashion. The function of management information systems is not only to provide information for decision-making but also to save the time a manager might otherwise need to expend in repeatedly identifying his information needs and searching for such information.

3.1.1.6. Directives Management.

Directives management is concerned primarily with the preparation and prompt dissemination within an organization of information on policies and the procedures required for implementing them. It involves determinations on the most suitable style and format of directives, the means and extent of distribution, and the development of directives systems that are flexible, expandible, easily amended and comprehensive.

3.1.1.7. Word and Text Processing.

Word and text processing typically involve the use of word processor machines that combine the characteristics of an automatic typewriter and a CRT terminal, and are linked to a computer. Textual information which is likely to be used repeatedly, possibly with some variations, may be stored in the computer or in auxiliary devices, manipulated as necessary, and repeatedly re-typed with total accuracy and with minimal effort on the part of the word processor operator. Word processors are also designed to facilitate editing and to avoid repeated manual retyping of drafts. Word and text processing have obvious labour-saving applications in the preparation of forms, correspondence, reports and directives.

3.1.2. Records Use and Maintenance.

This second phase of records management involves the use, control and storage of records that are needed to carry out or facilitate the functions or activities of an organization. It embodies measures to ensure (1) the ready availability of needed information and records, (2) cost-effective use of current information and records, and (3) selection of supplies, equipment and locations for the storage of records which are appropriate to the frequency and nature of their use. The component elements of the records use and maintenance phase of records management may be described briefly as follows.

3.1.2.1. Filing and Retrieval Systems.

The development of filing and retrieval systems---whether manual, mechanized or automated---should focus on the order or arrangement in which records or information are filed and maintained, and on means of ready identification and retrieval of individual records or files. These systems should take into account the functions and operational requirements of the offices they serve, and the need to segregate and secure any information requiring special protection or limited access within the office.

The same criteria may be important factors in determining whether centralized or decentralized filing systems are more appropriate in a given situation. Filing systems should facilitate ready identification or segregation of records of permanent value, and be so designed as to permit periodic destruction of records of transitory value and regular transfers of records to intermediate storage areas or records centres when they become non-current.

3.1.2.2. Files Management.

Files management is sometimes defined to include the development of filing and retrieval systems, as well as the operation of those systems, but its ultimate area of concern is much broader. It may involve the design and management of many filing and retrieval systems within a large organization, perhaps an entire ministry of government; training of files personnel; selection of appropriate filing supplies and equipment, ensuring the maximum utilization of existing equipment and controlling the procurement of additional equipment; and the development of systems for the storage of information on non-paper media such as microforms or video recordings, with computer-assisted means of information retrieval. Files management may also include responsibility for the periodic disposal of records no longer needed, for the operation of an intermediate staging or storage area for semi-current records and for the transfer of less active records to a records centre.

3.1.2.3. Mail and Telecommunications Management.

This area of specialization is related to, but distinct from, correspondence management which is essentially a part of the records creation phase of records management. Mail management, which may also involve comparable responsibilities for telecommunications, is concerned with controlling incoming written communications to ensure their prompt receipt at the appropriate office, developing and managing an inter-office mail system within a large organization and determining the most appropriate and cost-effective means of dispatching outward-bound communications.

3.1.2.4. Selection and Management of Office Copying Machines.

The increasing availability and use of office copying machines has introduced many conveniences to office operations and has saved both time and effort; it has also accelerated the process of records creation and has opened up new opportunities for waste and abuse. For these reasons the selection and management of office copying machines has assumed increasing importance in recent years. The selection of the most appropriate machine in a given instance involves consideration of a number of factors including production capacity versus need; simplicity and versatility of operation; mechanical reliability, availability of repair and maintenance services, and availability of spare parts and supplies; the permanence of the paper and the image; and criteria for determining whether lease or purchase is more cost-effective. A related con-

sideration is determining the amount of office copying equipment needed; for example, one large, versatile, high-capacity machine may be less costly and more useful than a number of small machines. After the equipment has been selected and installed there remain a number of areas in which continuing management vigilance is needed such as limiting additional machine procurement to meet realistic requirements, determining the best location of machines in relation to their users and control procedures to minimize paper wastage and unauthorized use.

3.1.2.5. Systems Analysis.

Systems analysis is the detailed examination of the way work is accomplished, combined with a systematic consideration (sometimes by mathematical means) of alternative means of accomplishing work, with the objective of saving money, or improving quality, productivity or responsiveness. It has come to be a basic management tool applicable to many areas of managerial responsibility. This process has special efficacy in the field of records management as so much of the work of any office is accomplished through the creation and use of records. For example, changes in the way information is gathered, recorded, manipulated and filed may significantly affect the effectiveness of operations, the time required to reach a decision or perform a service and the quality and responsiveness of governmental processes. Conversely, the order in which various steps of a given process are performed and the manner in which they are performed may have an important bearing on the kinds of recorded information that are needed, the ways in which the information is recorded and the design of forms and reports. Systems analysis should be employed when consideration is being given to automation of information systems or introduction of micrographics for storing, using or disseminating information. While systems analysis has important uses that go beyond a concern for proper management of records and information it is a tool that comprehensive records management programmes will need to utilize.

3.1.2.6. Vital Records Programmes.

Vital records programmes are established to ensure that in the event of war or natural disaster the informational content of certain key records will survive and thus permit the continuity of essential governmental functions. Each government must determine for itself which records are most essential for this purpose but they would normally include evidence of important legal obligations, contingency plans to be put into effect in the event of a national emergency, identification of key civilian and military personnel, military plans, and basic information about the industrial infrastructure, distribution of food and other essentials, and medical facilities and personnel. A vital records programme should develop criteria for selecting vital records, for microfilming or otherwise reproducing them, and for acquiring and equipping secure facilities (probably underground) for storage and use of the reproduced records. The vital records plan should, of course, make provision for the periodic updating of the vital records by substituting more current information or records and disposing of those which have become

outdated.

3.1.2.7. Records Centres.

The records centre is an essential component of any effort by a government or other large organization to cope with the flood of modern records.

Records centres are designed primarily for storing and providing reference service on large quantities of records that are relatively inactive but that must be retained for varying periods of time. Records centre staff are responsible for seeing to the destruction, under proper authorization, of records that are no longer needed, and for providing reference service on the records to the agencies that originated them and to other parties approved by that agency. In some countries records that are designated for permanent retention may also be placed in the records centre for a period of years prior to their eventual transfer to the national archives. While there, steps may be taken to perfect their arrangement and to develop basic finding aids, and essential conservation measures may be employed.

In most countries records in a centre remain in the legal custody of the transferring agency. In some the archival authorities are responsible for their physical custody and for carrying out all administrative measures for their use and safekeeping, subject to rules formulated by the transferring agency. In other countries each agency is allocated space for the storage of its own records, and each furnishes the personnel necessary to process and service them. The archival authorities, in such cases, may be responsible only for overall security and maintenance and thus play essentially the role of a landlord.

The relationships of the archival authorities versus the transferring agencies in the operation of the records centre will need to be developed in the light of each nation's traditions and governmental structure. As a rule, however, it is possible to achieve more effective space and equipment utilization, as well as other economies and efficiencies, if the operation of the records centre is entrusted entirely to the archival authorities.

Records centre facilities should be designed to permit the housing of large quantities of records at low cost. This can best be accomplished by using space with high ceilings and by employing a shelving configuration which permits the storage of a large volume of records on a minimal amount of floor space. The federal government of the United States of America, which has had perhaps the most extensive experience in the design and management of records centres, regularly achieves a storage ratio of more than five cubic feet of records to each square foot of floor space. At the present time it realizes an annual saving of almost US \$10 for each cubic foot of records removed from a filing cabinet in government office space to a federal records centre. About 40 percent of all federal records are stored in records centres and the government currently

realizes a net saving of about US \$143 million annually through use of these facilities. These data would, of course, vary from one country to another, but it seems apparent that use of records centres would lead to substantial economies in most countries.

Records centres should be located in fire-resistive structures that are equipped with automatic fire alarm and suppression systems. Physical security of the premises is also essential, and if automatic security alarm systems are not installed the facilities should be under round-the-clock protection of guards. The requirements for control of temperature and humidity may be less stringent for records centres than for archives buildings as most of the records stored in the former are of only temporary value.

3.1.3. Records Disposition.

This third phase of records management is a critical one, involving decisions on which records should be saved as a permanent record of the nation's past, which should be destroyed, and how long after their creation the latter should be retained for on-going administrative or legal reasons. This is a process in which archivists as well as records managers should play a role. Different countries use somewhat different procedures for arriving at these vital decisions but any effective records disposition procedure will embody in some form the following activities: (1) identification and description of records by series or class; (2) scheduling of these series or classes for retention or disposal; (3) appraisal to determine which records merit permanent retention as archives; (4) periodic disposal of non-permanent records; and (5) transfer of permanent records to the national archives.² These activities or processes comprise the most basic and important aspect of records management. They will engender tangible savings and cost-avoidance more quickly than most other elements of the records management spectrum, especially if coupled with the establishment and use of a records centre.

The sequence of procedures described below sets forth a suggested method for accomplishing the salient elements of records disposition.

3.1.3.1. Identification and Description of Records Series.

It is axiomatic that any decisions on retention or disposal of unique record materials must be based on reliable information about the character, volume, informational content and internal relationships of the records themselves. Creation of this information base by a country just beginning to develop a records management system will involve a significant amount of organized

²For a discussion of disposition practices and appraisal criteria in a number of countries see Åke Kromnow, "The Appraisal of Contemporary Records," Archivum, vol. 26 (Proceedings of the 8th International Congress on Archives), pp. 45-54.

effort but it will be an investment that will pay for itself many times over. In its essential elements it involves conducting a survey of all official records, leading to the preparation of an inventory containing common information elements about all records series or classes. These elements include: (1) the title of the series or a brief description of the kind of records involved, such as "Correspondence Received by the Minister of Trade," "Aides Memoires of the Permanent Secretary of the Ministry of Foreign Affairs," "General Ledgers of the Administrative Officer," "Requisitions for Supplies," or "Case Files (dossiers) on Recipients of Public Assistance"; (2) inclusive dates; (3) quantity of the records stated in linear metres, cubic feet, or another consistent unit of measurement, possibly supplemented in some instances by a count of the number of volumes (if the records are bound), or the number of individual items (if the records are in the form of maps, photographs, reels of cinema film or computer tapes); (4) a brief narrative description of the informational content of the records; (5) an estimate of the frequency of reference to them; and (6) specific locational information, including the agency and the organizational subdivision having custody of them, the street address or name of the building, and the room number or floor where located. Information about the equipment occupied by the records (linear measurement of shelves, or number and size of file cabinet drawers) and about the rate at which the records accumulate annually will also be useful.

In order to ensure essential comparability and consistency of information in the inventory a standard form should be designed for the use of all involved in the work of surveying.

Ideally, the survey should be conducted by the agency records management officers or, if these officials have not yet been designated, by the staff of the archives administration. If the latter is not large enough to conduct the survey within a reasonable time, arrangements might be made to supplement the staff with students of history or public administration and employed on a temporary or part-time basis, or to use clerks and other employees to conduct the survey in their own agencies. The latter may, of course, require the intervention of an official having considerable inter-ministerial authority. If either of the latter alternatives is employed, it will be essential for the archival authorities to provide training and detailed instructions to all surveyors, to make occasional on-site inspections of their work, and to require that completed inventory forms be submitted at frequent intervals, in order to ensure that a consistent, useful and high quality inventory is produced.

3.1.3.2. Development of Records Retention and Disposition Schedules.

Once the inventory has been completed for even one or a few agencies, and submitted to the archives administration, the development of records retention and disposition schedules may commence. Again, a standard form will be needed, containing spaces for the following data elements: (1) the title of the agency and major subdivisions thereof; (2) titles and brief descriptions of the

records series or classes, perhaps listed in running order conforming to the hierarchical organization of the agency; (3) a number or other unique designator for each schedule and for each series therein; (4) the length of time that the series is to be retained by the creating agency; (5) the length of time, if any, that the series is to be retained in the records centre; (6) an indication of whether or not the records are of permanent value; and (7) the duration of any period in which reference to the records is prohibited or limited. The form should also include space for signatures implying approval by both the agency and the archives administration, and any other appropriate approving authorities such as a chief legal or financial auditing official.

If these data elements are logically related to each other on the schedule form it will be possible to deduce quickly from a completed form: (1) when, or at what intervals, the records, if not permanent, are to be destroyed, and whether by the agency or the records centre; and (2) when, or at what intervals, permanent records are to be transferred to the national archives, either from the records centre or directly from the agency itself.

Again, it is desirable that the schedule be completed in draft by the agency records management officer, but if this is not feasible the task should be assumed by the archives administration. In any event it is the agency officials who should determine how long records need to be kept for administrative or legal reasons although the archival authorities may wish to make recommendations on this score.

A variant type of the records retention and disposition schedule is the "general schedule" which lists, and provides disposition instructions for, records of functions that are common to several or all agencies of government. These functions might include finance and accounting, personnel, payroll and pay administration, procurement, or travel and transportation. Although it may not be feasible to develop general schedules until substantial progress has been made in inventorying and scheduling records on an agency-by-agency basis, this records disposition tool should be accorded prominence in any government-wide records management programme because of its usefulness in facilitating the disposal of large quantities of "housekeeping" records.

The final procedural step in the records disposition process, records appraisal by the archival authorities, is described in the following section.

3.1.3.3. Records Appraisal.

At this point in the records disposition process the agency of origin has presumably determined how long each series of records needs to be retained in order to serve its own administrative ends or legal requirements. It remains for the archival authorities to determine whether any of the records series appearing on the schedule have values that extend beyond those of concern to the agency and, if so, whether the records have sufficient value to warrant

their permanent preservation as a part of the nation's archives.

This process, records appraisal, is perhaps the most difficult and most important professional activity in which archivists engage, because once a decision is made to permit the destruction of a unique body of records it is irreversible and the information contained in the records probably will not be obtainable from another source.

It should be emphasized that records appraisal is an archival, not a records management, function. It is described in this chapter only in order to illustrate in appropriate sequence all of the processes involved in records disposition.

Records appraisal involves first of all a review of the schedules (and perhaps the inventory forms), and of the retention and disposition provisions proposed by the agency of origin. The schedules will normally include a number of series that are clearly disposable because they relate, for example, to minor administrative functions, housekeeping activities, or low-level facilitative processes, or because they are duplicate files. The schedules may also include records series that quite obviously have the kinds of values that warrant their permanent preservation as archives, such as acts of parliament, treaties, diplomatic correspondence, military plans, correspondence or policy files of ministers and their principal assistants, legal decisions establishing important precedents, and summary budget and planning files. The difficult and time-consuming work of the records appraiser will thus centre on records series that cannot readily be categorized as either disposable or permanent.

Records falling in this "grey area" require careful and judicious study before decisions are reached as to their retention or disposal. This study may require an examination of the records themselves, a comparison with other records series that may contain some of the same information, and an assessment of the research needs and uses their retention would facilitate. The archivist performing this task should be one who understands the nature and practice of research, is aware of research currently underway and of research trends, is knowledgeable about the history of the nation and the development and organization of its governmental institutions, and is familiar with other research resources---in the archives itself, in libraries, in documentation centres and elsewhere. The appraisal archivist must also bring to bear the personal qualities of intelligence, sound judgement, imagination, and a sense of his responsibility as an arbiter of what the nation's official memory will, in the future, contain.

As a rule his recommendation will be to retain or authorize the destruction of records series in their entirety. If the series is voluminous, and if its only value is the information it contains (that is, if no intrinsic values are present), he may recommend that it be microfilmed and that the original records be destroyed; this recommendation may be especially appropriate if the records are fragile or deteriorating. There may be cases in which a series

contains material clearly of value, but also records of little or no importance; if the latter can be readily identified and easily removed he may recommend that screening take place. If the screening involves only the selection of readily identifiable forms or other records the process might be accomplished in the agency of origin; however, if the screening requires an assessment of informational values the records should be transferred to the archives where professional archivists will be available for the work. In other instances the appraisal archivist may recommend that a sampling of the records be retained. The latter decision should be approached with considerable caution as an appropriate sample is difficult to devise and the results of archival sampling have sometimes proved unsatisfactory.³

The recommendations of the records appraiser, and the rationale for them, should be embodied in a formal appraisal report which should be made subject to the review of higher archival authorities before it is approved. The final approval of any permission for records destruction should be made only by the professionally qualified head of the national archives, or with his explicit concurrence if the approval process is a collegial one.

After the recommendations set forth in the appraisal report have been approved it will be possible to complete the records retention and disposition schedule. The schedule should be annotated or revised to show which, if any, records have been adjudged to be of permanent value. The schedule should then be signed by the head of the agency in which the records originated or by his designated representative for such matters. Finally, it should be signed by the head of the national archives. At this point the schedule becomes a formal instrument of agreement between the originating agency and the national archives, and constitutes continuing authority for the agency to destroy the disposable records on the schedule consonant with stated retention requirements.

It should be noted that records retention and disposition schedules are not static documents and that they will need to be revised or amended as new records series are created and as new means of record keeping are introduced.

3.1.3.4. Records Disposal.

The destruction of records that no longer serve a useful purpose is a positive, not a negative, action. It frees office space for the use of people, and frees filing equipment for storage of records currently needed in the conduct of business. The acquisition of ever more space and filing equipment can thus be slowed down, if not actually stopped, and considerable expendi-

³See Felix Hull, The Use of Sampling Techniques in the Retention of Records: A RAMP Study with Guidelines, Paris, UNESCO, 1981 (PGI-81/WS/26), 64 p.

ture avoided. Records destruction can also improve operational efficiency by bringing discipline and system into the care of the remaining records and lessening the quantity of records to be searched in order to locate needed information.

Records disposal, whether carried out in the office or in the records centre, should be conducted periodically and as soon as possible after retention periods have been fulfilled. There are several physical means of accomplishing records destruction and the choice of the method will, in some cases, depend on the nature of the records themselves. Records containing national security information or information which, if revealed, would violate personal privacy rights will need to be completely obliterated by burning, maceration, pulping or shredding, under circumstances where responsible officials can witness the process and certify to its effectiveness. Non-sensitive records, on the other hand, may be sold or otherwise conveyed to waste-paper dealers or other enterprises that are in the business of recycling paper products. If this opportunity is not present consideration might be given to disposing of records by burial in land-fills or by other means.

Some countries have a provision in their laws authorizing the national archives to approve the donation of records not found to have values warranting their retention by the government, to educational or cultural institutions willing to assume the responsibility of storing them and providing reference service on them. In such cases the donation agreement should require the recipient organization to observe access rules that are comparable to those that would have been in effect had the government retained custody.

In all instances of records disposal a dated record of the action should be made, which identifies the records and cites the disposal authority. This record should itself be maintained permanently.

3.1.3.5. Transfer of Records to the Archives.

Records appraised to be of permanent value may be transferred to, and accessioned by, the national archives either directly from the agency of origin or from the records centre. As a general rule the archives should not accept records that will be closed to research use for many years to come, but exceptions to this rule should be made when the agency is being disestablished and has no successor in function, or if there is a danger that the records would suffer damage or become subject to dispersal if left in agency custody.

The accessioning of records by the archives marks not only their physical transfer, but also the legal transfer of title to them, from the agency of origin to the national archives. For this reason, and others as well, it is important that the transfer be carefully documented. The accession instrument should include for each records series involved: (1) the series title; (2) a brief description of its informational content and of its internal

arrangement or organization; (3) its inclusive dates; (4) the quantity of records; (5) a brief statement as to their physical condition; and (6) a statement of any limitations on access to the records and the duration of such limitations. The instrument should also include language which formally transfers title to the national archives. When signed by appropriate officials of both the transferring agency and the national archives, legal transfer of title and responsibility is accomplished and the archives agrees to accept and enforce any access limitations.

If the agency has created finding aids such as indexes, registers, filing schemes or file manuals, these should be transferred with the records to which they pertain. Should this not be practicable, because a part of the records covered by the finding aid remains in the agency, a copy of it should be prepared and transferred.

3.2. The Use of Automation and Reprography in Records Management Systems and Services.

Automation and reprography have come to play an important role in many aspects of records management, and reliance on these technological tools will undoubtedly continue to increase indefinitely.

Perhaps the most striking advances in recent years have been in the general area of records creation. In the industrialized societies a great deal of information is entered directly into computerized systems through keyboard devices or optical scanning techniques, and the information so entered is manipulated by computers, may be read on video display units and, when the information is needed in hard copy, is printed by high-speed auxiliary devices. In other situations, particularly when machine-readable information needs to be widely distributed, computer output microfilm or microfiche (COM) may be the preferred distribution mediums, in part because they are compact and mailing costs are far less than for paper print-outs. Indeed, the paperless office is no longer the chimera of visionaries. The use of computers and of reprographic technology to store, manipulate, retrieve and disseminate information has placed versatile new tools in the hands of records managers, whose objective, after all, is to make the storage and handling of information less costly and more efficient. It has also posed important problems, not the least of which is the identification and preservation of information with potential archival values. The very ease with which information in a computer system can be manipulated and altered presents a challenge to those who are committed to maintaining the integrity of information of permanent value.

Records use and maintenance encompasses, of course, the information which might be said to begin its life upon being entered into a computerized system. It also encompasses applications of automation and reprography that are introduced retrospectively to records at a somewhat later point in their life cycle. An example is computer listing of access status, which may be especially useful in countries having "freedom of information" laws. Although as a rule retrospective applications are more costly than various

means of source data automation, there are many circumstances in which the increased ease of manipulating, retrieving and disseminating information will make them worthwhile. An important part of the records manager's responsibility is to measure the benefits against the costs of such initiatives and provide management with sound and unbiased recommendations.

Computers are now used to assist in certain management functions in records centres, primarily to ensure optimal use of shelving space, to maintain location information on individual records transfers, and to identify records that have reached the end of their retention periods and are thus disposable.

Micrographics play a unique role in the maintenance of records, as a means of providing security copies, and as a tool for reducing information storage requirements. In the latter area, however, the records manager should proceed with caution, as the cost of microfilming is often substantially greater than the cost of storing the original records in a records centre for many years. There may, of course, be instances where the introduction of micrographics will have important operational advantages during the period when the records are in very active use, and the decreased requirements for storage space and equipment will be a welcome by-product. A net saving may also be realized by filming archival materials, destined as they are for permanent retention, and subsequently disposing of the original records. However, this should be done only (1) if the arrangement of the records is perfected before filming, (2) if proper targeting materials are inserted, (3) if the information they contain will be readily retrievable, (4) if the filming, film stock and processing meet archival technical standards, and (5) if the records have no values other than the information they contain. Disposal microfilming should not be employed if the records have intrinsic values in addition to their information content.

Although computers have not been used extensively in the records disposition phase of records management there are promising potential applications, including tracking of information on the status of records schedule development and implementation, and the creation of data bases of information on retention and disposition provisions for records already under schedule control.

As automation and reprography become relatively less expensive, and as new technological breakthroughs are achieved, it may be expected that additional applications across the entire spectrum of records management will be identified and implemented, and that many applications which are now technically, but not economically, feasible will become cost-effective. New technology for high density data storage, including bubble memory and optical recording, will be of particular interest to records managers and archivists, and its further development should be closely monitored.

3.3. Economies and Administrative Efficiencies Attributable to Records Management Systems and Services.

The savings and cost avoidance attributable to records management systems and services that are perhaps the easiest to identify and quantify are those that may be achieved through comprehensive records retention and disposition scheduling, timely records disposal, and maximum use of records centres for the storage and retrieval of semi-current and inactive records. It is obvious, as well, that a properly designed and maintained vital records programme has the potential for inestimable savings, not only of funds and material resources, but of human life itself, in the event of a major disaster.

Substantial improvements in administrative order and discipline, hence greater efficiency and economy, can be achieved through the conscious and consistent management of the whole process of records creation---controls over the design, generation and distribution of forms, reports, directives and correspondence---as well as in the design of filing and retrieval systems, files management and office copy machine management.

An enhanced level of responsiveness, both within government and to the public served by government, may be achieved through effective filing and retrieval systems, well-designed management information systems, correspondence management, and mail and telecommunications management.

Systems analysis has significant potential for process improvement---the saving of time and money in the processing and delivery of products and services, and the qualitative improvement of end products and services.

The potential economies and efficiencies that have been briefly summarized above are realizable to a degree whether or not modern technology has been introduced into the creation, use and storage of records and information. The judicious use of automation and reprography can increase those economies, enhance those efficiencies, and make government increasingly responsive to those whom it was established to serve.

3.4. Levels of Implementation of Records Management Systems and Services.

Four basic levels of implementation have been identified, although it should be recognized that any of the first three levels may be enhanced by the inclusion of selected systems and services from one of the higher levels. Each of the basic levels is described briefly below.

3.4.1. The Minimal Level.

A government can hardly be said to have a records management programme unless it has, as a minimum, systems in place for the development of records retention and disposition schedules, proce-

dures for the timely disposal of records pursuant to the provisions of those schedules, and procedures for transfer to the national archives of records that have been appraised as having permanent value.

3.4.2. The Enhanced Minimal Level.

This level embodies the scheduling, disposal, appraisal and transfer systems of the "minimal level" supplemented by the existence and systematic use of one or more records centres.

3.4.3. The Intermediate Level.

This level includes the systems and services in the "enhanced minimal level" as well as other basic sub-programmes which would usually include forms design and management, correspondence management, reports management, development of filing and retrieval systems, files management and a vital records programme.

3.4.4. The Optimal Level.

This level encompasses all, or essentially all, of the systems and services described in Section 3.1 and includes, in addition to those in the "intermediate level," directives management, mail and telecommunications management, office copying machine management, management information systems, systems analysis, and the use of word and text processing in the generation of correspondence, reports and directives, and in the completion of forms. As a rule, records management programmes at the optimal level will be characterized by utilization of computer and reprographic technology in a variety of applications.

4. OTHER CHARACTERISTICS OF MODERN ARCHIVES AND RECORDS MANAGEMENT PROGRAMMES.

4.1. Alternative Arrangements for Conducting Elements of the Archives and Records Management Programme.

In Chapters 2 and 3 of this study the basic elements of a modern archives and records programme have been described, and the benefits of incorporating these elements in the overall programme have been suggested. For reasons that frequently have had their origins deep in the nation's history or its governmental traditions, some countries have not placed all elements under the direct jurisdiction of the central archives administration.¹

While it is not practicable to describe these alternative arrangements in any degree of detail they should be at least noted in summary fashion.

In some countries, particularly in Europe, there is a strong tradition of ministerial archives. Many of these were in existence long before the establishment of a centralized national archives and some continue to be under the direct jurisdiction of their parent ministry. In some cases, however, mechanisms have been developed which provide the national archival authorities with a measure of influence, at least, respecting the policies that govern the administration of ministerial archives. The ministries most frequently excluded from control of the national archives administration are foreign affairs and defence. It may be that a concern over the safeguarding and control of sensitive national security information has been a factor in maintaining the jurisdiction of these ministries over their own archives. While this is understandable, there are many countries where the national archives does have responsibility for foreign affairs and defence ministry archives; and there appears to be no evidence that the national security has suffered as a result.

¹The most accessible and convenient source of information on the extent of archival and records management responsibilities of individual national archives administrations is Archivum, which has devoted the following volumes to the publication of archival legislation: 17 (Europe: Allemagne-Islande), 1971; 19 (Europe: Italie-Yougoslavie), 1972; 20 (Afrique-Asie), 1972; 21 (Amérique-Océanie), 1973; and 28 (Archival Legislation, 1970-1980), 1982 (the introduction to volume 28 contains a summary of recent trends in legislation governing archives and records management and in the organizational placement of archives administrations). Additional and more recent information has been obtained through the author's review of the responses of a number of African states to UNESCO's "Survey of Archival and Records Management Systems and Services---1982." Both of the sources cited here have been useful in developing the information about organizational locations of national archives that appears in Section 4.2.

The national archives administration in a number of countries, including many in the developing world, encompasses not only the national archives proper, but also a distinct and co-equal organization responsible for the government-wide records management programme.

In most countries having a reasonably well-developed archives and records management programme, responsibility for records scheduling, appraisal and disposition, and for the management of records centres, rests somewhere in the national archives administration. In many countries, however, responsibility for certain other aspects of records management, particularly those relating to records creation, has been placed in an agency with inter-ministerial responsibility for administrative operations, or in the individual ministries themselves. Although a significant measure of control over the entire life cycle of records by the central archives administration is much to be preferred, the placing of responsibility for certain aspects of current records management in a central administrative agency may be effective provided there is a mechanism for close and continuing liaison and co-ordination with the archives administration, and so long as the latter retains responsibility for records scheduling, appraisal and records centre operation. If there is no central governmental authority responsible for providing records management leadership and direction, and each agency is left to develop its own means of dealing with the management of current records, the likely result will be inactivity, inefficiency, confusion and, eventually, archives of poor quality.

An effective records management programme requires the designation of a ranking official in each agency to be responsible for developing, promoting and overseeing the programme, and maintaining liaison with the central authority vested with government-wide oversight of the programme. In some countries this role is played by a member of the staff of the national archives who is seconded to the post.

Governmental structure and tradition will influence the scope of the central government's archival and records management responsibilities with respect to records created by units of government at the provincial and local levels. In countries with a federal system, or a strong tradition of local self-government, the central archival authority may have responsibility only for records of organisms of the national government. In other countries, especially those with a strongly centralized governmental structure, the national archival authority may have a comprehensive responsibility for official records created at all levels of government. In some of these countries there is a degree of autonomy in the administration of archives and records at sub-national levels, with the national archives retaining the authority to establish standards and the right of inspection.

In several countries, most of them in Africa, the national archives is responsible for functions that do not, strictly speaking, involve the management of archives, official records or other manuscript materials. Most frequently these extra-archival func-

tions centre on the national archives' designation as the place of legal deposit for all or a part of the nation's output of books and other printed or published materials, and the concomitant responsibility to develop and maintain the national bibliography. In a few countries the archives' legal deposit responsibilities extend to postage stamps, currency notes and coins. Also in a few countries the national library is subordinate to the national archives.

Although in almost every instance the first responsibility of the national archives is to official records created or accumulated by governmental entities, many national archives have some degree of responsibility for other elements of the national documentary patrimony. Issues affecting the care and management of archives and records created outside the purview of government are discussed in Section 4.3.

4.2. Organizational Location of the National Archives within the Bureaucracy.

The decision on where, within the national bureaucracy, the national archival and records management programme should best be placed involves consideration of a number of factors. The national archives proper is in large part a cultural and research-oriented institution. This suggests that the ministry with responsibility for other cultural institutions, such as libraries and museums, or the ministry responsible for higher education, would be the most appropriate and congenial organizational location. On the other hand, as the national archives is likely to be responsible for the records of all national agencies, as well as for the records of the national legislature and judiciary, one could argue that it might be better located within an agency, or under an official, having broad interministerial authority. This may be even more important if the mandate of the national archives includes responsibility for developing a reasonably comprehensive records management programme for the entire government.² In a number of countries the latter considerations have resulted in an arrangement where the archives reports directly to the president, the prime minister or the secretary-general of the government.

It is probably correct to say that any solution to the organizational placement problem is apt to have both advantages and disadvantages, and the problem is complicated by the national archives' dual role as a cultural institution and as an instrumentality for governmental efficiency and economy. The following brief review of current organizational arrangements reveals that, while there are four locations within government hierarchies that tend to be most widely favoured, the total picture is one of very great di-

²For a discussion of the interministerial character of the national archives see Verhoeven, The Role of Archives in the Public Administration and the National Planning Policy of Developing Countries with Particular Reference to Southeast Asia, Paris, UNESCO, 1972 (COM/WS/284), pp. 40-42.

versity.

Information has been obtained on the organizational location of the national archives in a total of 99 countries.³

The most popular arrangement of all has been to make the national archives directly responsible to the president, the prime minister, the secretary-general of government, the cabinet or council of ministers, or an independent board. This is the arrangement in 25 countries, 13 of them in Africa and six in Asia, and including such nations as Australia, Israel, Japan, Sweden and the U.S.S.R.

In 19 countries the national archives is a part of the ministry responsible for culture. In some instances this ministry is also responsible for science, youth, sports or tourism. Ten of these countries are in Europe and four each are in Africa and Asia. They include several countries with mature, well-developed archival systems such as Denmark, France, Hungary, Italy, the Netherlands and Spain.

Seventeen national archives are located in the ministry responsible for education or higher education, which is sometimes also responsible for culture, science, information, social planning or sports. Eight of these countries are located in Africa or the Indian Ocean, six are in Europe and three are in Latin America. They include Belgium, Finland, Poland, South Africa and Yugoslavia.

The fourth most popular location is in the ministry of the interior, internal affairs or home affairs. This is the location of the national archives in 15 countries, six of them in Europe, and four each in Latin America and Africa. These countries include Argentina, the Federal Republic of Germany, the German Democratic Republic, Mexico, Rumania and Switzerland.

Other locations include the ministry responsible for libraries and/or museums (four countries), the organization responsible for documentation and information services (three countries), an agency responsible for general services or administration (three countries, including the United States of America), and the ministry of justice (two countries). Other national archives report to a wide variety of officials, including ministers of finance and of constitutional affairs, the lord chancellor (the United Kingdom), and the heads of departments of antiquities and of archaeology.

4.3. Arrangements for the Management of Non-Governmental Archives and Records.

In many countries, especially but not exclusively those with a strongly centralized system of government, the national archives

³This information has been drawn primarily from the sources cited in footnote 1, and from Archivum, vol. 22-23 (International Directory of Archives), 1975.

is responsible, at least to a degree, for the archives of non-governmental organizations including commercial enterprises, trade unions, educational institutions, religious bodies and political organizations, and for private papers of individuals. The degree of responsibility varies greatly. In some instances the national archives is merely authorized to accept custody of permanently valuable non-governmental manuscript materials. In others it has a responsibility to see that certain standards are maintained with regard to the preservation and handling of non-governmental archives, and the obligation to control any export of such materials. In still other situations it has far-reaching and comprehensive responsibilities with respect to all unpublished documentary materials irrespective of their origins. In socialist countries the latter situation frequently prevails, in part because enterprises and organizations that would elsewhere be non-governmental in character are publicly owned or administered. In summary, the degree of responsibility vested in the national archives for non-governmental records ranges from none at all to almost total.

In some countries a clear distinction is made between the national archives proper, which is concerned primarily with the records of government, and the "national archives system," which includes the national archives but is a far broader concept. This concept is set forth with particular clarity in the UNESCO document entitled Establishing a Legislative Framework for the Implementation of NATIS: "[I]t embraces the whole archival wealth of a nation from all sources and aims at preserving and making accessible all archives which have research value, and achieving the most economical and effective use of the resources available for these purposes. . . . The broad requirements of a national archives system are therefore as follows:

- (i) the establishment of a National Archives as the archival authority for central government;
- (ii) the imposition of a statutory duty on all governmental or administrative authorities (regional, provincial, etc.) as well as public and quasi-public bodies of any other kind, to make provision for records management and for archives;
- (iii) the protection of private archives from wanton destruction, decay, sale and export, and the encouragement of deposit in the National Archives or some other suitable archival institution;
- (iv) the provision of central machinery to ensure an appropriate means of integration or co-ordination of archival services."⁴

⁴Sewell, Mabbs and Broome, Establishing a Legislative Framework for the Implementation of NATIS, Paris, UNESCO, 1977 (CC-76/NATIS/8), p. 57. See also pp. 53, 58 and 59 for further discussion of non-governmental archives.

Regardless of whether or not the "national archives system" concept is grounded in law, archivists and records managers and their professional associations have an obligation to promote the proper care of non-governmental archives and the development of records management systems and services in organizations and institutions in the non-public sector. Although each of these organizations is unique and may have its own particular information requirements, the basic principles of archives administration and records management apply to them as well as to the entities of government.

4.3.1. The Records of Commercial Enterprises.

Commercial enterprises in market economy countries have as a major objective the creation of profit. For this reason most large and successful enterprises apply the tools of records management in their operations because of their utility in producing efficiency and economies. The larger enterprises often operate their own records centres or utilize the services of commercial firms which provide records centre facilities and services to a number of enterprises. In countries where some or all of the means of production are nationalized or in some form of public ownership the government may be in a position to prescribe the employment of records management systems and techniques.

Although all commercial firms create records that have permanent value to themselves, and many produce records having research values for scholars and other classes of primary users, the importance of archives is probably not as widely recognized by commercial enterprises as are the more utilitarian values of records management systems and services. Many large enterprises do, however, understand the value of their records as a source of social, economic, scientific and technical information and have established their own archives. In other instances, they have arranged for the deposit of their older records of permanent value in governmental archives or in repositories maintained by libraries, universities and other scientific and educational institutions.

4.3.2. The Records of Other Organizations and Institutions.

Non-commercial enterprises, including educational institutions, hospitals, religious bodies, trade unions and political organizations are major producers and users of information. The records they create in carrying out their functions need proper management in the interest of efficient operations, and a part of these records is archival in character.

Many of them have developed and implemented comprehensive records management programmes, some have established records centres, and a substantial number have either created their own archival repositories or have entrusted the care of their archives to other institutions, governmental or private, which have the requisite

facilities and staff.⁵ Not surprisingly, institutions of higher learning and religious bodies have generally demonstrated a greater awareness of the need for proper archival arrangements than have some other kinds of institutions and organizations. Many universities, for example, have not only developed repositories for their own archives but have actively solicited the donation or deposit of archival materials from commercial enterprises, other institutions and organizations, and from individuals who have achieved eminence in their chosen fields of endeavour, because they understand that such materials are a valuable research resource for their faculty and students.

4.3.3. Personal Papers and Manuscript Collections.

Practically all literate individuals create and receive records which, if retained, would provide elementary evidence of their activities and interests. Many individuals make no pretense of saving or organizing these materials, and if they did the records might hold little interest for others. Nevertheless, personal and family papers can be a valuable source of information and insight. This is most likely to be the case when an individual has achieved prominence in business, industry, government, science, literature, the arts, or some other profession. It may also be true of persons who have not distinguished themselves in any noteworthy way but who are representative of their profession, trade or avocation, and who have been systematic record keepers. Personal and family papers of value deserve the kind of care and treatment that is most likely to be accorded them in an archival repository.

Manuscript collections are another valuable documentary resource. Many individuals, motivated by a love of history, an interest in a particular subject, or the desire to acquire things of value or beauty, systematically collect historical manuscripts. The building of these collections is often dependent, unfortunately, on the breaking up and dispersal of valuable organic bodies of record material. Nevertheless, artificial collections of historical manuscripts may have important informational and cultural values, and often have considerable monetary value. For these reasons manuscript collectors should be encouraged to deposit their collections in archives or manuscript repositories, and to make arrangements, through bequest or otherwise, for their eventual donation to the repository. In this way the manuscripts may be afforded security and professional care, further dispersal and fragmentation can be avoided, and they will become available for research purposes.

⁵For an international survey of the archives of trade unions, see Archivum, vol. 27 (Labour and Trade Union Archives) 1980, 190 p.

5. THE RELATIONSHIP OF ARCHIVES AND RECORDS MANAGEMENT TO OTHER SYSTEMS AND SERVICES IN THE FIELD OF INFORMATION.

5.1. Common Problems and Interests.

Although archives and records management systems and services differ from other institutions and services in the information field with respect to procedures, and to some extent with respect to objectives and problems, there remains a broad area of common concerns, interests and goals. They share with libraries, documentation centres, and scientific and technological information systems and services an interest in the preservation of information source materials, terminology, information dissemination and use, and technological developments applicable to the information field, including especially automation and reprography.¹

5.1.1. Preservation of Information Source Materials.

The concern for preservation of information source materials, held in common with other kinds of information systems and services, may be identified in two distinct but related ways.

The first is an intellectual concern for the retention, at least for the period of time in which they will be useful, of information sources. This is a matter of importance to both records management and archival services, and is shared with all other segments of the information community. It may or may not involve long-term, indefinite or permanent retention.

The second involves both intellectual concerns and material measures for prolonging, perhaps indefinitely, the existence of original documents upon which information of enduring value is recorded or, as an alternative, for creating and preserving authentic facsimile versions of those documents in another medium, most often on microfilm or microfiche. These concerns are shared primarily by archivists and librarians.

Material measures for prolonging the life of documents are diverse and numerous. They include: facilities that are properly designed, equipped, and maintained; maintenance of appropriate environmental controls; physical repair and conservation measures such as de-acidification, leaf-casting, lamination, encapsulation, and rebinding; duplication of fragile or deteriorating paper docu-

¹Detailed discussions of present and potential areas for co-operation among the information professions appear in d'Olier and Delmas, Planning National Infrastructures for Documentation, Libraries and Archives: Outline of a General Policy, Paris, UNESCO, 1975 (Documentation, Libraries and Archives: Studies and Research, 4), pp. 270-273; and in the FID/ICA/IFLA Report on Joint Policy Meeting Held at the Rockefeller Study and Conference Centre, Villa Serbelloni, Bellagio, Italy, 6-9 May 1980, processed, 17 p.

ments on microfilm or microfiche; and recopying of photographs, sound recordings, motion pictures, and machine-readable materials.

5.1.2. Information Dissemination and Use.

Every segment of the information community is concerned with information dissemination and use. Indeed, it is the *raison d'être* for them all. This is true even though there are important differences among them in the purposes of information use, the ways in which information is used (including differing research techniques for different user professions), and the modalities of information dissemination. To a greater or lesser extent all elements of the information infrastructure depend on micrographics, and increasingly on automation, as tools in information dissemination and use. All attach considerable importance to assessing and accommodating the needs of users and hence to user training in one form or another.

5.1.3. Technological Developments in the Information Field.

All kinds of information systems and services are increasingly wedded to technology as a means of performing work more economically and efficiently. Indeed, some services now provided would be impossible or impracticable without the utilization of technology. Many of the technological processes, particularly in the area of automation and reprography, have been developed specifically for use within the information community. Other useful technological tools have been developed in the first instance for other purposes, and have subsequently been adopted by one segment or another of the information community, or adapted to serve information needs. Each of the information professions would benefit by a greater degree of awareness of the ways in which technology is being utilized by other information professionals, and would thus be in a better position to adapt appropriate technological processes to their own, possibly unique, requirements.

5.2. Areas for Collaboration Among the Information Professions.

Although the several information professions are unique, and attempts to press them into the same mould will not succeed, there are numerous ways in which they can collaborate on common objectives, and engage in joint endeavours, to the benefit of all. Foremost among these activities are the development of guidelines, standards and terminology; the education and training of information managers, professionals, para-professionals and users; and the development and promotion of comprehensive national information policies, infrastructures and systems.

5.2.1. Development of Normative Materials.

A significant number of existing international guidelines, elaborated in large part by UNISIST, and many of the standards approved by the International Organization for Standardization (ISO), have a degree of applicability to several of the information professions. In some cases they are applicable to all. The same may be said of additional standards and guidelines currently

approved at the national level which have not yet been approved as international norms. A recent study shows, for example, that a substantial number of internationally approved normative instruments are applicable, in whole or in part, to the requirements of archives and records management systems and services, and that, with amendment or extension, still others could be made applicable.²

At both national and international levels it is important that all of the information professions which might benefit from a guideline or standard should be involved in its development and elaboration. In instances where this has not taken place the guideline or standard, as finally approved, often has failed to realize its full potential in terms of usefulness to certain elements of the information community. Joint developmental mechanisms are needed in order to achieve the fullest degree of applicability, and all of the information professions could profitably collaborate in perfecting and using such mechanisms. A number of very useful ideas on this subject were set forth some years ago by E.J. French,³ who advocated a greater degree of user assessment of existing and proposed standards and greater input from potential users in establishing priorities within standardization programmes, through establishment of a standardization matrix within the framework of UNISIST, and reliance on control groups of users to test standards before their final issuance.

5.2.2. Education and Training.

A second major area for collaboration is the education and training of information managers, professionals, para-professionals and technical workers, and the training of users of information systems and services. Although archivists and records managers have training needs that are unique to their own professions, a number of thoughtful observers have identified a common core of courses that may be basic to all of the information professions and that could advantageously be taught in a single institution.⁴

²Rhoads, The Applicability of UNISIST Guidelines and ISO International Standards to Archives Administration and Records Management: A RAMP Study, Paris, UNESCO, 1982 (PGI-82/WS/4), 95 p.

³E.J. French, A Methodology for Testing and Evaluating Standards with Special Reference to Information, Documentation and Related Fields, Paris, UNESCO, 1976 (SC.75/WS/102), 11 p.

⁴See Michael Cook, "An International Standard for the Training of Archivists and Records Managers," Unesco Journal of Information Science, Librarianship and Archives Administration, vol. 4, no. 2, April-June 1982, pp. 114-122; Delmas, The Training of Archivists: Analysis of the Study Programmes of Different Countries and Thoughts on the Possibilities of Harmonization, Paris, UNESCO, 1979 (PGI-79/CONF.604/COL.1), pp. 26-29; and P. Havard-Williams and E.G. Franz, Planning Information Manpower, Paris, UNESCO, 1974 (COM-74/NATIS/REF.5), pp. 18-20.

Outside of this core curriculum there are many courses that, while designed for a particular profession, could with benefit be taken by those who are preparing for a related profession. The result might well be broader-gauged professionals in each field and the potential for greater mobility among the information professions.

In the countries (particularly in Europe) where the education and training of information professionals is already institutionalized along disciplinary lines, this kind of cross-fertilization may be more difficult to achieve but, as educational institutions are established in the developing countries, the training of all kinds of information professionals and para-professionals in the same institution has many advantages and holds considerable promise. A prime example is the School for Librarians, Archivists and Documentalists (EBAD) at the University of Dakar. In Europe itself, the London School of Library, Archives and Information Studies, and the School of Documentalists, Archivists and Librarians at Madrid, provide well-developed models for this type of institution.

5.2.3. The Promotion and Development of National Information Policies, Infrastructures and Systems.

It seems obvious that if a country is to achieve a comprehensive, balanced and effective information infrastructure, the involvement and best efforts of all elements of the information community must be encouraged. If a nation is still in the process of evolving and developing its information policy and infrastructure, all information professions and institutions should be involved in the planning process. In countries where there are well-developed information institutions and systems, it is equally important that there should be a representative mechanism for co-ordination and further development of national information policy.⁵

⁵Some very practical suggestions to this end are offered in the draft guidelines on the scope, formulation and implementation of national information policies, prepared for UNESCO in 1982, pp. 27-31.

6. SUMMARY AND CONCLUSIONS.

Comprehensive records management programmes ensure the systematic application of tested and proven procedures and techniques throughout the life cycle of records, from their creation to their ultimate disposition. The management of records is important, not only because the information records contain is in itself a valuable resource, but also because it is a means of introducing efficiency and realizing economies in administration.

Good archives are dependent, in significant measure, on effective records management programmes, for only when they exist is there assurance that records likely to be of permanent value are created on durable materials, are organized so that they can be easily retrieved, are adequately cared for during the active period of their existence, and are properly scheduled, appraised and transferred to the archives.

Archival management focusses on preserving and facilitating the use of records of permanent value. The only valid reason for assuming the continuing burden of preserving archives is to ensure that they will eventually be available for use---by the government itself, by individual citizens as evidence of their rights and entitlements, by primary users whose research and writing extend the frontiers of human knowledge and understanding and, indirectly, by secondary users who may benefit educationally and culturally by exposure to the products of primary users and to archival exhibitions.

In carrying out their tasks archivists and records managers share the basic objectives of librarians, documentalists and other information professionals---the preservation, organization and use of information. All benefit from utilizing the tools of modern technology, particularly automation and reprography. Each of the information professions has a vital interest in the development of guidelines and standards, in the education and training of its professional, sub-professional and technical workers, and in user training. Their efforts, if effectively co-ordinated, can ensure the development of national information infrastructures and systems that will make the best use of available resources in meeting the information needs of the nation.

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