

Who Controls the Past

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Abstract: A modern, complex, information-rich society requires that archivists reexamine their role as selectors. The changing structure of modern institutions and the use of sophisticated technologies have altered the nature of records, and only a small portion of the vast documentation can be kept. Archivists are challenged to select a lasting record, but they lack techniques to support this decision-making. Documentation strategies are proposed to respond to these problems.

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Who controls the past, controls the future; who controls the present, controls the past. . . . The mutability of the past is the central tenet of Ingsoc. Past events, it is argued, have no objective existence, but survive only in written records and in human memories. The past is whatever the records and the memories agree upon. And since the Party is in full control of all records, and in equally full control of the minds of its members, it follows that the past is whatever the Party chooses to make it.

George Orwell, 1984

Since the first satellites had been orbited, almost fifty years earlier, trillions and quadrillions of pulses of information had been pouring down from space, to be stored against the day when they might contribute to the advance of knowledge. Only a minute fraction of all this raw material would ever be processed; but there was no way of telling what observation some scientist might wish to consult, ten, or fifty, or a hundred years from now. So everything had to be kept on file, stacked in endless air-conditioned galleries, triplicated at the [data] centers against the possibility of accidental loss. It was part of the real treasure of mankind, more valuable than all the gold locked uselessly away in bank vaults.

Arthur C. Clarke,
2001, *A Space Odyssey*

A vision of scarcity; a vision of abundance. Which will it be? Though once

perceived as keepers, American archivists, having accepted appraisal responsibilities, perceive themselves as selectors.¹ Our modern, complex, information-rich society requires that archivists reexamine their role as selectors. The changing structure of modern institutions and the use of sophisticated technologies have altered the nature of records, and only a small portion of the vast documentation can be kept. Archivists are challenged to select a lasting record, but they lack techniques to support this decision making. Documentation strategies are proposed to respond to these problems. Before discussing documentation strategies more fully, this article will analyze the factors that have affected the nature of modern records and suggest why these changes require archivists to rethink the way they assemble their collections.²

The Integration of Modern Institutions

Traditional archival principles prescribed by Theodore Schellenberg and others emphasize the need to understand the bureaucratic structure of the institutions being documented. Archivists study the position and functions of each office in the administrative hierarchy.³ Recently, more systematic studies of bureaucracies and decision making have been proposed as a method to strengthen archival theory and practice. Frank Burke suggested that archivists should examine "the nature of the decision-making process in the management and

¹This fact is discussed in Thornton W. Mitchell's useful article, "New Viewpoints on Establishing Permanent Values of State Archives," *American Archivist* 33 (April 1970): 163-74.

²Technically, archivists receive rather than collect archival material. Archivists have retention rather than collecting or acquisition policies. Since this article argues that both archivists and manuscript curators must rethink assumptions about the way they gather material, however, collecting will refer to both the transfer of archives and the acquisition of manuscripts, and archivists will refer also to manuscript curators. Terry Eastwood and others have argued that archivists should use the term acquisition rather than collection. I have continued to use the latter, but would welcome a change if the profession could agree on terminology. Finally, modern refers primarily to the post-World War II period.

³T. R. Schellenberg, *Modern Archives: Principles and Techniques* (Chicago: University of Chicago Press, 1956), 152.

operation of a corporate body” and the effect of this process on records retention.⁴ In separate studies, Michael Lutzker and JoAnne Yates have responded to Burke’s challenge by analyzing the impact of particular bureaucracies on records creation.⁵

The analysis of single institutions, however, is insufficient to support the decisions archivists face. Individuals and institutions do not exist independently. Examination reveals the complex relationships between institutions and individuals. Government, industry, and academia—the private and public sectors—are integrated through patterns of funding and regulations. Governments award contracts to academic institutions and private companies to develop space shuttles and run hospitals, while they control the privacy of student records and the testing of new drugs. As federal funds to state and local governments diminish, municipalities are consolidating and contracting with private firms to provide public services. Academic institutions have responded to reduced federal funding by turning to industry and private foundations to support teaching and research activities.

Archivists solicit and receive collections from individuals, but multiple hands have created the “individual’s” papers. Although seen most clearly in the evolution of science and technology from an individual to a team activity, this phenomenon is common throughout other sectors of society. For example, Patricia Aronsson’s analysis of congressional records describes the team of per-

sonnel—aides, assistants, and secretaries—that creates the congressman’s papers.⁶

These complex patterns exist in any modern institution. MIT receives research funds from the National Science Foundation, the Andrew W. Mellon Foundation, Exxon, and individual donors. Newark, New Jersey, receives federal funds for housing and road construction while it contracts out to a private firm for refuse collection. Farmers receive federal funds to control crop production. Records mirror the society that creates them. Integrated functions affect where and how the records of these activities are created and where they should be retained.

The Integration of Modern Information

As the integration of institutions has affected modern records, so too has the integration of modern information. The body of information that archivists “control” is part of a much larger universe that exists in many forms and is “controlled” by many specialists. While archival records may still provide fundamental documentation of institutions and activities, their form and substance have been altered by changing technologies and communication patterns. Archival repositories now gather information in many formats: visual, published, aural, artifactual, and machine-readable. Each form of documentation offers a different type of evidence, and researchers generally use many forms of documentation in an in-

⁴Frank G. Burke, “The Future Course of Archival Theory in the United States,” *American Archivist* 44 (Winter 1981): 42–43.

⁵Michael A. Lutzker, “Max Weber and the Analysis of Modern Bureaucratic Organization: Notes Toward a Theory of Appraisal,” *American Archivist* 45 (Spring 1982): 119–30; JoAnne Yates, “Internal Communication Systems in American Business Structures: A Framework to Aid Appraisal,” *American Archivist* 48 (Spring 1985): 141–58.

⁶Patricia Aronsson, “Appraisal of Twentieth Century Congressional Collections,” in *Archival Choices: Managing the Historical Record in an Age of Abundance*, ed. Nancy Peace (Lexington, Mass.: Lexington Books, 1984), 81–104. Aronsson uses this understanding most effectively to formulate her appraisal recommendations.

egrated fashion. Appraisal techniques, however, generally support the analysis of specific forms of evidence (appraisal of machine-readable or photographic records, for example). The emphasis is placed on the form rather than the substance of the record.

Archivists lack techniques to appraise an integrated multi-format body of information. The historical record of the Congress, for example, includes not only the papers of individual senators, congressmen, and committees, but also the *Congressional Record*, reports in the *New York Times* and *Washington Post*, autobiographies of senators and congressmen, and visual and oral histories of the members. The invention and development of the transistor are documented not only in the laboratory notebooks and correspondence of the laboratory and its members, but also in published technical reports and scientific articles. Analysis of a total documentary record will enable archivists to determine the specific contribution made by each form of evidence and thereby support integrated appraisal decisions.

Effects of Integration of Institutions and Information

Thus the integrated nature of society's institutions and its recorded documentation must be reflected in archivists' efforts to document those institutions. Institutions do not stand alone, nor can their archives. Archivists must rethink their strategies and even redefine the very notion of an institutional collection.

An institutional archives' responsibility is to gather and preserve the historic records of that institution. As the ac-

tivities in one institution are linked to those in another, so too the records of those activities are linked. The records of an institution's functions—the archival collection—can be dispersed in several archives. For example, how many archival repositories does it take to document the complexities of the moon shot?⁷ President Kennedy committed the nation to the task, and the National Aeronautics and Space Administration (NASA) had the responsibility to oversee and coordinate the work. Where was the work done? Martin Marietta built the craft. MIT's Instrumentation Laboratory built the inertial guidance system. Astronomers, mathematicians, engineers, and physicists at numerous academic and industrial sites solved specific problems for the flight. Where is "the collection" documenting the moon shot? It exists as a unit only in the mind; physically it does not exist in one place. To gather the records together in one place—at the Kennedy Library, the National Archives, or NASA—would be artificial. As a totality the records document the efforts of the United States to place a man on the moon, but the individual parts of "the collection" document activities in the history of each participating institution—Martin Marietta, MIT, NASA, and others.

Although this discussion has focused on archival collections, the same arguments also apply to personal papers. Archivists are encouraged not to disperse the papers of individuals but to gather them in one institution, even though the individuals may have many institutional affiliations throughout their careers. In the scientific world it is not uncommon for scientists to move from laboratory to

⁷Frank Burke used this as an example in his commentary on the report of the Joint Committee on Archives of Science and Technology (JCAST) presented at the 47th annual meeting of the Society of American Archivists, 5–8 October 1983, Minneapolis, Minnesota.

laboratory, often working with teams at several institutions at one time.⁸ Administrators and politicians hold many positions throughout their careers. Although a biographer would benefit if the papers were housed together in one site, institutions would lose portions of their records.

The dispersal of related records at several institutions is not alien to archivists. What is alien is the concept of deliberately shaping collecting decisions based on the inevitable and appropriate dispersal of related records. This is not proposed as a method to eliminate competition, but as a strategy to build coherent collections cooperatively, minimizing duplication. It requires, however, that archivists' concept of their "collection" not end at their own doors.

Collection Development Versus Collection Management

Archivists and librarians traditionally articulate their collecting objectives in acquisition or collecting policies. The formulation of an archival collecting policy is most clearly presented by Mary Lynn McCree. Archivists are encouraged to prepare written policies after weighing scholarly, economic, physical, and political factors. McCree suggests that "it is wise for institutions to cooperate with one another, especially if they are located in the same geographic area."⁹ This advice, however, is offered in the context of

minimizing competition and placing papers at the most appropriate institution.

Librarians have traditionally used a similar form of analysis. In recent years, however, fiscal constraints and the proliferation of information has shifted their focus from collection development to collection management. "Collection development focuses on the building of collections and implies a process of continuing growth. It relates more to our earlier periods of affluence in the 1960s. Collection management, on the other hand, is a response to the economic retrenchment and decline of the 1970s. It is a systematic, planned, documented process of building, maintaining, and preserving collections."¹⁰ Critical to the success of collection management are defined collection strategies, active selection, and coordinated cooperative plans among libraries.

In 1980 the Research Libraries Group (RLG)¹¹ initiated a collection management effort through its Conspectus project, an effort to facilitate coordinated collecting through the use of collection evaluation activities. Conspectus is an analysis of "existing collection strengths and future collecting intensities of the RLG" member libraries. Using subject and classification descriptors, member libraries describe their collecting levels on a scale of zero to five, with zero indicating no collection and five indicating a comprehensive research collection.¹² The project is built on the understanding

⁸Joan N. Warnow, Associate manager, Center for History of Physics, American Institute of Physics, argues this point persuasively for contemporary physicists.

⁹Mary Lynn McCree, "Defining Collections and Collecting," *Drexel Library Quarterly* 11 (January 1975): 27.

¹⁰Jutta Reed-Scott, "Collection Management Strategies for Archivists," *American Archivist* 47 (Winter 1984): 24.

¹¹RLG is a membership organization with four main programs: a bibliographic utility entitled the Research Libraries Information Network (RLIN), shared resources, cooperative collection development, and preservation. In 1980 the RLG members were Columbia, Stanford, Yale, Cornell, and Temple universities, the University of Minnesota, and the New York Public Library.

¹²Nancy E. Gwinn and Paul Mosher, "Coordinating Collection Development," *College and Research Libraries* 44 (March 1983): 128-40.

that each library has a core collection molded by the needs, interests, and resources of the individual institution. This core collection is judged against local needs, not national standards. In the areas outside the core collection, the member libraries build linkages based on their individual strengths. Judged against national standards, the libraries determine which has the strongest collection in specific topical areas, and they agree to support the continuing growth and preservation of these collections.

The RLG program depends on the availability of the Conspectus information in the RLIN data base and the loan or photocopying of materials for other member libraries. The Association of Research Libraries (ARL)¹³ has now initiated the North American Collections Inventory Project (NCIP) to investigate the wider uses of Conspectus for its membership, including selection, retention, and preservation activities.

As Jutta Reed-Scott has noted, however, "... archives and manuscripts, because of their qualities of uniqueness, present problems that differ from those relating to printed material." Indeed, the library model might have limited use for archivists because the archival universe of information is much larger than that of the library.¹⁴ Archivists can profit nonetheless from studying the cooperative library projects, most specifically the concept of the core collection and its relationship to the larger collection. This concept is comparable to an

archival collection—the official records retained by an institution for its legal, administrative, fiscal, and historical needs. The size and the scope of the collection should be judged by local needs and constraints, not national norms. Archivists' legal obligations to their institutions are fulfilled by gathering the core collection. With the legal mission assured, archivists can examine their collections as sources of information, seek ties with other institutions, and develop new strategies to build and manage collections. They will then be challenged to select material "within a much different environment, one in which each archive and library is not a self-contained entity, but a component of an undefined whole."¹⁵

Defining Collecting Strategies

Challenged by the abundance of materials, the scarcity of the resources to care for them, and the decentralized nature of contemporary society and its records, archivists must develop new intellectual frameworks to guide them.¹⁶ Three levels of collecting strategies can be defined. The first two, collecting policies for individual institutions, and collecting projects, are familiar to archivists. The third, documentation strategies, is a new, untested idea that is proposed to respond to the challenges of modern documentation. It is hoped that the following discussion will stimulate debate and experiments.¹⁷

A collecting/acquisition policy is a

¹³ARL is composed of 117 university and independent research libraries in the United States and Canada.

¹⁴Conversation with Jutta Reed-Scott, 5 January 1984.

¹⁵Patricia Battin quoted in Reed-Scott, "Collection Management Strategies," 26.

¹⁶Any study of collecting activities must first reconsider F. Gerald Ham's three seminal articles on this topic: "The Archival Edge," *American Archivist* 38 (January 1975): 5-13; "Archival Strategies for the Post-Custodial Era," *American Archivist* 44 (Summer 1981): 207-16; and "Archival Choices: Managing the Historical Record in an Age of Abundance," *American Archivist* 47 (Winter 1984): 11-22.

¹⁷My ideas about documentation strategies were formed while working with Larry Hackman on the 1982 SAA Program Committee and the Goals and Priorities Task Force. I thank him for his endless patience and inspiration. The fruits of his own investigation will be published in a forthcoming article.

written statement prepared by a specific repository to define the scope of its collection and to specify the subjects and formats of materials to be collected. A collection policy is developed in light of other repositories' policies and is implemented in part through cooperative collecting plans and documentation strategies.

A *collecting project* is a plan formulated to assure the documentation of a specific issue or event. In general, the issue or event is historic, not ongoing (e.g., development of the transistor, Harry Truman's presidency); more than one repository is involved in the identification and retention of the material; and existing records are gathered rather than new records created. A collecting project is of limited duration; it is not an ongoing activity.

A *documentation strategy* is a plan formulated to assure the documentation of an ongoing issue, activity, or geographic area (e.g., the operation of the government of the state of New York, labor unions in the United States, the impact of technology on the environment). The strategy is ordinarily designed, promoted, and in part implemented by an ongoing mechanism involving records creators, administrators (including archivists), and users. The documentation strategy is carried out through the mutual efforts of many institutions and individuals influencing both the creation of the records and the archival retention of a portion of them. The strategy is refined in response to changing conditions and viewpoints.¹⁸

Documentation strategies present

many difficult questions. How are the topics to be documented chosen? Who chooses them? Where should these activities be based? These are not only intellectual but also political issues. An examination of existing models suggests some answers and provides direction.

Existing Models—the Discipline History Centers

The scientific and technological discipline-based history centers are among the most useful models to study. Though the American Institute of Physics's Center for History of Physics is the oldest and best known of the discipline-based centers, others exist for electrical engineering, chemistry, information processing, public works, psychology, geophysics, and botany.¹⁹ Most have been initiated by concerned members of a professional society and are funded in part by them. Such centers are based at the professional societies (e.g., American Institute of Physics [AIP], Institute of Electrical and Electronics Engineers) or at academic institutions where they are supported by both a professional society and a university (e.g., Center for History of Chemistry, University of Pennsylvania; Charles Babbage Institute for the History of Information Processing, University of Minnesota). The centers gather printed and oral history materials, conduct historical research, and promote a concern for the history of their discipline. All of the centers have engaged in archival activities, predominantly identifying and placing collections at appropriate institu-

¹⁸These definitions were prepared by Patricia Aronsson, Larry Hackman, and the author for a session on documentation strategies, presented at the 48th annual meeting of the Society of American Archivists, 30 August–3 September 1984, Washington, D.C.

¹⁹See Joan K. Haas, Helen Willa Samuels, and Barbara Trippel Simmons, *Appraising the Records of Modern Science and Technology: A Guide* (Cambridge, Mass.: MIT, 1985; distributed by the Society of American Archivists), 84–90 for an extensive list of the centers.

tions and compiling directories of manuscript and archival collections. Archivists at numerous institutions benefit from the centers' services when they seek appraisal guidance, background on historical issues, or support for oral history projects. The centers, in turn, seek the cooperation of archival institutions when they place manuscript and archival collections.

The report of the Joint Committee on Archives of Science and Technology encouraged the history centers to expand their archival endeavors, as they have available to them the expertise of the creators and users of records that is required for appraisal and documentation studies.²⁰ Some centers, especially the Center for History of Physics, have achieved such an expanded archival program. Indeed, the AIP's entire program could be viewed as a documentation strategy.²¹ The purpose of the program is to gather and preserve a record of modern physics and to encourage the use of these materials. The program is defined and monitored by archivists, historians, and physicists. The staff and advisors locate and place collections of papers of individual physicists, assess the available documentation of modern physics, and when necessary create documents to complete the historical record. The overall strategy has been carried out through a series of projects aimed at documenting specific topics: astrophysics, solid-state physics, and nuclear physics. In each case, historical

research guides a search for sources and the creation of oral history interviews to supplement the available record. The AIP's study of records-keeping practices in four U.S. Department of Energy laboratories focused specifically on questions of archival documentation. The findings have been used to improve the records systems in the laboratories and have enhanced AIP's knowledge of the adequate documentation of a modern laboratory.²²

History centers such as the AIP's have each been shaped by a specific discipline. While their activities provide a useful model, archivists must determine other ways of organizing documentation activities.

Documentation Strategies

A documentation strategy consists of four activities: (1) choosing and defining the topic to be documented, (2) selecting the advisors and establishing the site for the strategy, (3) structuring the inquiry and examining the form and substance of the available documentation, and (4) selecting and placing the documentation.

Choosing and Defining the Topic to be Documented

Coordinated library acquisition activities are supported by common vocabularies of subject descriptors and classifications systems (for example, Library of Congress subject headings and

²⁰*Understanding Progress as Process: Documentation of the History of Post-War Science and Technology in the United States: Final Report of the Joint Committee on Archives of Science and Technology (HSS-SHOT-SAA-ARMA)*, ed. Clark A. Elliott (Chicago: 1983, distributed by the Society of American Archivists).

²¹A forthcoming article by Joan K. Warnow describes the center's activities as a documentation strategy.

²²Joan N. Warnow, *Guidelines for Records Appraisal at Major Research Facilities: Selection of Permanent Records of DOE Laboratories* (New York: American Institute of Physics, 1985); Joan Warnow, with Allan Needell, Spencer R. Weart, and Jane Wolff, *A Study of Preservation of Documents at Department of Energy Laboratories* (New York: American Institute of Physics, 1982).

the Library of Congress classification system). Appropriate classification numbers are used by librarians to delineate specific topical responsibilities in cooperative collecting projects. Archivists have no equivalent universal vocabulary. Archival acquisitions are delineated by the responsibilities and activities of the institutions being documented, rather than by specified subject areas. Documentation strategies can build upon the fact that archival collections provide both a record of a specific institution and information on the subjects reflected in the activities of that institution. The Institute Archives at MIT, for example, provides a record of the administration, teaching, and research activities of the institute and thereby provides information about the history of computers, the economy of Massachusetts, and the contributions of women in science and technology. Documentation strategies do not foster subject collections. Rather, subject, functional, or geographic analysis permits archivists to look across institutions and plan for the appropriate retention of material in its appropriate setting.

Lacking an agreed-upon vocabulary, archivists must experiment with various constructs to define specific documentation strategies. The two most obvious choices are topical and geographic. The history centers provide a model of a topical definition, while some coordinated collecting activities by the state networks (Wisconsin and Ohio, for example) suggest how a geographic focus can be used. Whatever the construct, it must be defined specifically and its geographic and chronological boundaries delineated. A documentation strategy for

the history of computers, for example, must specify the dates of the earliest machines to be included; whether both analog and digital computers will be documented; whether the strategy will focus on activities in the United States and/or other countries; and if the social, economic, and cultural impact as well as the technological aspects will be addressed. As documentation strategies begin to be implemented, archivists will learn more about how to choose and define appropriate and manageable topics. They will also develop techniques to blend topical and geographic approaches.

An additional problem associated with the selection of topics to be documented is that, of necessity, topics are chosen based upon current historical understanding. Though archivists are asked to consider future uses of records, they cannot anticipate research trends or the specific questions researchers will bring to the records. Selection must be based on current understanding and today's values. "The archivist's job is to document society in all its multiplicity and to transmit to posterity a manageable amount of records."²³

Site for the Documentation Strategy

Once the topic for the strategy has been chosen, a permanent base for the activity must be identified and a group of advisors, representing the interests of the creators and users, selected to guide the project. The advisory board and the administrative structure established at the permanent base will develop, direct, and monitor the documentation strategy.

Again, archivists can look to the library community, which has established

²³Hans Booms, cited in Nancy Peace, "Deciding What to Save," *Archival Choices*, 11. The work of Hans Booms, a West German archivist, has very interesting implications for the debate on the archivist's role as an honest broker and the ability of archivists to appraise in light of future research trends. These are stimulating topics that deserve a separate article. A great service could be rendered by translating and publishing more of Booms's work in English. Peace has offered a tantalizing glimpse of his thought.

administrative structures for their cooperative activities. A national machine-readable data base of cataloging information serves as a basis for descriptive and collecting activities. The Library of Congress supports the data base by providing cataloging information on the LC MARC (Machine-Readable Catalog) tapes. This information is made available by computer networks (OCLC, RLG) to their member libraries, which then contribute additional cataloging and location information about their own holdings. The computer networks link libraries and promote shared cataloging and resources. The cooperative acquisition programs of state library systems, city library consortia, and networks of specialized libraries all build upon and contribute to this central data base. Major organizations, such as the Association of Research Libraries, supplement these activities by developing projects to respond to the particular needs of their members.²⁴

Until very recently the archival community has not used automated networks because they failed to respond to archivists' needs. The new machine-readable AMC (Archival and Manuscripts Control) format provides a communications and management system that supports the contribution of information to these networks while also enhancing archivists' ability to describe, manage, and share information about holdings.²⁵ The increasing use of the AMC format and the growing number of archival and manuscript repositories that are contributing information to automated networks indicate a dramatic

change in the archival profession and a new potential for cooperation.²⁶ In 1985 the National Historical Publications and Records Commission (NHPRC) funded a project to enter descriptive records of seven state archives in the RLIN data base and to share appraisal information.²⁷ This project is one of many that will demonstrate how archivists can adapt and use the automated networks to support and coordinate their activities.

The archival community as yet lacks both the umbrella structure of a national bibliographic network and a clear understanding of how such a body of information can be used to support documentation activities. The NHPRC project and other similar efforts will begin to provide answers. In the meantime, other bases for cooperative activities must be established and tested. Eventually, a multi-level structure will exist in which documentation activities will be carried out at many institutions and, most likely, coordinated and integrated through automated data bases.

Appropriate sites for documentation strategies must provide resources to sustain the effort, access to the required expertise, and a long-term commitment to the activity. These activities need not be based at an archives, since a documentation strategy involves examining the documentation and planning for its retention but does not require assembling it in one location. Among the most logical bases for these activities are state or city archives for geographical documentation strategies, and discipline

²⁴ARL's accomplishments include the Farmington Plan, the Foreign Newspaper Microfilm Project, the establishment of the Office of Education's Title IIC program to strengthen library resources, and the promotion of preservation and coordinated retrospective conversion activities.

²⁵See Nancy Sahli, *MARC for Archives and Manuscripts: The AMC Format* (Chicago: Society of American Archivists, 1985).

²⁶Yale and Cornell universities, among other RLG members, have contributed many records of manuscript and archival holdings to the data base.

²⁷"The Seven State Archives RLIN Project," NHPRC Grant #85-147. The seven states are Alabama, California, Minnesota, New York, Pennsylvania, Utah, and Wisconsin.

history centers or specialized repositories for subject-based strategies.

At present, state archives and state historical societies are perhaps the most logical settings for these activities. Although their statutory authority, structures, and scope of responsibility differ, state archives and historical societies tend to have the resources and mandate that a documentation strategy requires. The state networks and statewide surveys of sources suggest structures that can support strategies and provide information about available documentation,²⁸ but these are only preliminary efforts. Networks clarify the location and responsibility for material, but not which material should be preserved. Survey results tell what exists, but not what archivists want to exist.

During 1982–1985 the NHPRC supported state assessment studies in forty-three states. In each case the states assessed the effectiveness of their state and local records programs, the other archival activities in their state, and the cooperative programs linking these activities. These efforts produced a vast amount of information about archival programs in the United States and stimulated plans to improve archival activities throughout the country.²⁹ Though the studies assessed administrative, financial, and legal problems, less attention was given to the quality of the collections and their ability to provide sufficient evidence about the history of each state. Documentation strategies could be ini-

tiated by extending assessment studies to this area. Do the collections in the state archives and other repositories in each state adequately document that state? If not, what topics and what areas are being neglected? What are the barriers to the preservation of the neglected materials? Is new legislation or are additional repositories needed? Should the state archives or another institution initiate a specific strategy to improve the documentation of a neglected area? For example, though the performing arts and the high-technology industry are extremely important to the history of the Commonwealth of Massachusetts, both areas are inadequately reflected in archival holdings in the state. Solutions for documenting the two areas will be quite different, but the Massachusetts Archives can play a key role by identifying the problems and coordinating the solutions.

Statewide documentation strategies must begin, as discussed above, with the appointment of advisors³⁰ and the clarification of the scope and purpose of the activity. In most cases the strategy will be carried out through a series of projects focused on specific topics or geographic areas: farming in Iowa, the labor movement in New York state, the coal industry in southeast Ohio. Each strategy must assess how the cities, counties, and institutions involved in each topic will contribute to the analytic process and collecting activities. Another major problem that must be addressed is the coordination of the strategies in each

²⁸See *Midwestern Archivist* 6, no. 2 (1982) for a very useful survey and analysis of the archival networks.

²⁹Lisa Weber, ed., *Documenting America: Assessing the Condition of Historical Records in the States* (New York: National Association of State Archives and Administrators, 1984). The state assessment reports are available upon request from the individual state coordinators.

³⁰The State Historical Advisory Boards could assume this role. The boards are now used by NHPRC to oversee the records program in each state. Larry Hackman and F. Gerald Ham have proposed that the boards take on enlarged planning responsibilities. Larry J. Hackman, "The Historical Records Program: The States and the Nation," *American Archivist* 43 (Winter 1980): 17–32; F. Gerald Ham, "NHPRC's Records Program and the Development of Statewide Planning," *American Archivist* 43 (Winter 1980): 33–42.

state and across state lines. Margaret Child's report on the NHPRC state assessment projects indicates the problems that arise when the states confine their analysis within their own borders.³¹ As documentation strategy projects evolve, techniques must be developed to support statewide and nationwide coordination.

Thus the analysis and coordination necessary to develop documentation strategies will improve the effectiveness of state archives. A documentation strategy will reveal the decision-making process by which material is chosen. Such activities will diminish the image of the archives as an endless warehouse and establish a justification for the resources that are required to house and administer the collections.

Structuring the Inquiry and Assessing the Documentation

At first, documentation strategies appear to be similar to traditional collecting activities. Topics are chosen, the turf defined, and then survey and collecting activities begin. Documentation strategies, however, do not start with surveys of available material. They begin with detailed investigations of the topic to be documented and the information required. The concern is less what does exist than what should exist.

Documentation strategies are designed to respond to abundance—an abundance of institutions and information. The intent is to design an analytic process that guides selection and assures retention of adequate information about a topic or locale. Historical research and discussion

at the beginning of a project will clarify the goals and identify the specific issues to be documented. This process, though, encompasses more than constructing a wish list. Hard questions must be asked about what will and what will not be documented. How many institutions or events must be documented and what will be left undocumented? How much information is enough? In the past, appraisal and collecting activities have focused on the selection of records produced by an institution or individual. Now documentation strategies must help archivists select those institutions and events to be documented and examine the ramifications of leaving others undocumented. For example, a strategy to document digital computers might recommend that each first generation machine be documented, but only specific key or prototypical second, third, and fourth generation machines. Such a strategy recognizes that for some machines little or no documentation will be sought or preserved.³²

One of the most difficult problems posed by these activities is the need to respect the archival requirements of institutions while shaping multi-institutional collecting efforts. If the state of Ohio is shaping a strategy to document its cities, how many towns and municipalities have to be included to accomplish this goal? Concurrently, what information does each city require to fulfill its legal and archival responsibilities to its citizens? Can these goals be integrated? Documentation strategies must be fashioned in sympathy with an institution's archival obligations.³³

In recent years, archivists have grap-

³¹Margaret Child, "Consultant Report: Statewide Functions and Services," in *Documenting America*, 47-57.

³²A machine can be designated to be documented either because it was a success or a failure.

³³In 1971 when Sam Bass Warner proposed that archivists establish sampling procedures to assure the preservation of the records of American cities, he was regarded as naive and foolhardy. Now he appears to have been more courageous and forward-thinking than his archival colleagues. See Sam Bass Warner, Jr., "The Shame of the Cities: Public Records of the Metropolis," *Midwestern Archivist* 2, no. 2 (1977): 27-34.

pled with the problems of abundance posed by labor union and railroad records. Specialized repositories have cooperated to identify, appraise, and place collections.³⁴ A documentation strategy builds upon this type of cooperation, but additional questions need to be answered. Is it necessary to preserve the records of every labor union and every railroad? If not, will any evidence remain of the labor unions and railroads whose records are not preserved? Is it an all-or-nothing question? Twentieth-century institutions are documented in a variety of published sources: annual reports, bylaws and rules, directories, newspaper accounts, and histories. Can archivists evaluate these published sources and then recommend a minimum archival record that should be preserved for each union and railroad? Railroads affect their employees and the cities through which they pass; unions affect their members and the companies that employ their members. If a strategy documents some unions and railroads more fully than others, can this documentation meet the information needs of the employees, individual union members, cities, and companies? The answer is probably no, but a strategy that fulfills everyone's needs returns archivists to the practice of saving everything.

Documentation strategies also help archivists manage modern records by acknowledging that they handle only part of the total documentary record. Archival and manuscript sources are not the only, or often the best, source of information. Information exists in many forms (published, visual, aural, artifac-

tual, machine-readable) and is managed by many curators (librarians, museum curators, data archivists). Adequate information about a specific activity or topic can exist in forms not traditionally managed by archival institutions. Documentation strategies must examine all available forms of documentation and assess their ability to provide the desired information. For example, the conceptualization, development, and marketing of a computer are documented in laboratory notebooks, funding records, policy memoranda, technical reports, machine-readable tapes, manuals, photographs, advertisements, and the machine itself. While the adequate documentation of the pioneering and prototype machines may require the retention of all of this information, many computers can be adequately documented by retaining only the technical reports and manuals.

Currently, archivists lack well-developed techniques to evaluate records as a source of information in light of the information available in other forms. At the same time, librarians and other curators are also selecting materials without reference to all forms of available information. Automated linked data bases will support coordinated decision making. Current studies of descriptive practices, including authority controls and functional analysis, could provide a common language that is required to support these coordinated activities.³⁵

While archivists acknowledge the overabundance of information, they also recognize that modern communication

³⁴An example is the NHPRC-funded Pennsylvania Railroad historical records project in which seven repositories participated in the appraisal and retention of the records.

³⁵Max Evans, "Authority Control: An Alternative to the Record Group Concept," *American Archivist*, 49 (Summer 1986), forthcoming; David Bearman, "Who About What, or from Whence, Why and How: Intellectual Access Approaches to Archives and Their Implications for National Archival Systems," paper presented at a conference on archives, automation and access, University of Victoria, British Columbia, 1-2 March 1985.

patterns and records-keeping practices leave gaps in the documentary record. Documentation strategies, however, are ongoing activities and provide the opportunity to intervene in the records creation process and assure the creation and retention of required information.

Documentation strategies, then, require two levels of analysis: first, an analysis of the history and scope of a topic so that the purpose of the strategy and the issues to be documented can be defined; and second, an analysis of the available sources of information so that an adequate record can be gathered for each issue. In *Appraising the Records of Modern Science and Technology: A Guide*, the authors address the second type of analysis by studying the documentation of a specific enterprise.³⁶ This appraisal guide examines the component activities in science and technology (establishing research priorities, funding, staffing, designing and running experiments, data gathering and analysis, and dissemination). Following an explanation of each activity, the information created and used during that activity is described and the relative potential for the reuse of that information evaluated. The authors argue, for instance, that the body of published scientific and technical reports is the most pervasive form of evidence. Though archivists need not read or comprehend the published record, they must understand its purpose and general content. Nonpublished sources, laboratory records, correspondence, minutes, and data will then be selected to supplement the published literature and more adequately document scientific and technological research activities. The authors also explore the role

of artifacts, in this case scientific instruments, in contributing to the documentation of science and technology and advise museum curators and archivists to coordinate their acquisition activities.

Once the scientific or technological topics to be documented have been defined, archivists can use this publication to guide appraisal activities. For example, the guide will recommend the selection of an adequate record for each machine chosen by a documentation strategy for computers. Appraisal guides, patterned after the science and technology appraisal volume, can be created for other areas (e.g., banking, court administration, labor unions) and used to support documentation strategies.³⁷

Selection and Placement of the Documentation

The investigation and planning by the strategy team will guide the search for and placement of the documentation. Though the collecting objectives may have to be modified by the availability of records and repositories, the collecting activities will be altered, based on the rationale and goals laid down by the advisors during the initial investigation. The documentation strategy for computers, for example, will have named specific machines that should be documented. If records of those machines do not exist, other machines meeting the same basic criteria will be substituted.

The major problem that will be encountered during this process is the availability of sufficient repositories to care for the records. Specialized repositories (e.g., Social Welfare History Archives, University of Minnesota; Ar-

³⁶Haas, Samuels, and Simmons, *Records of Modern Science and Technology*, passim.

³⁷With funding provided by the Andrew W. Mellon Foundation, MIT will commence a study of the records of colleges and universities in the spring of 1986. The final product will be an appraisal guide for these records.

chives of Business and Labor, Wayne State University; The Arthur and Elizabeth Schlesinger Library on the History of Women in America, Radcliffe College) will be able to accept some homeless collections in their topical areas. The state historical societies and state archives should be able to accept some material from their geographic areas. Nonetheless, documentation strategies should build upon the ongoing archival responsibility of an institution for its own records. The massive records created by IBM or the Digital Equipment Corporation are the companies' responsibility. Their administrative, legal, and historical needs require these organizations to establish and maintain archival programs. Where programs do not exist, the archival community must provide education and encouragement. Documentation strategies can assist by demonstrating the role and contribution an institution can make to a larger body of documentation. A better understanding of and respect for the role of records and information in the management of institutions will foster and support archival activities.

Conclusions

Documentation strategies will not create subject collections or force any individual institution to assume more than its own institutional responsibilities. Rather, documentation strategies are a form of analysis that promotes the coordination of the activities of many separate archives. A documentation strategy for Berkshire county in western Massachusetts, for example, will delineate the role of the cities, towns, and institutions in the county in preserving the needed documentation. The strategy must also take into account the crucial role of a number of institutions which are

not based in Berkshire county but which have had a major social and economic impact on the area, such as the Boston Symphony Orchestra (BSO), General Electric, and the New York Central Railroad. In each case the documentation strategy team will work with and encourage these institutions to save specific material. The BSO will be asked to preserve documentation of land acquisition and development and information on the number and salaries of staff hired from the county.

An ideal documentation plan will be continually modified based on the availability of records and repositories. Each topical area will present different problems. At this point archivists lack the experience to suggest solutions. Experiments with documentation strategies, even the most modest ones, will begin to build a body of experience that will guide future efforts.

Are documentation strategies to be implemented only by large institutions, or will all archivists and institutions have roles to play? Any institution can initiate and carry out these activities. Any archivist can identify a topic to be documented and gather the required personnel to accomplish the program. In addition, when their holdings relate to specific documentation activities, archival repositories will participate as analysts of records and recipients of selected documentation. Future meetings of archival associations and archival publications will report on the progress of strategies and elicit the cooperation of archivists and their institutions.

Collecting is the most important and demanding task archivists perform. Cut off from one another, archivists view their collections as self-sufficient, but this is an illusion. Automated networks and improved descriptive information about holdings draw institutions together and

thereby support the communication and coordination that will be vital to collecting strategy activities. In this environment, each collection and each repository becomes a part of a larger collection—our nation's collection. Archival collections may have roots in one institution, but their limbs reach out and touch others. A common soil and water source enriches and binds collections together. Archivists should offer the future not individual trees, but a forest.