Research Article

Viewing the Field: A Literature Review and Survey of the Use of U.S. MARC AMC in U.S. Academic Archives

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Abstract: U.S. MARC AMC (MAchine-Readable Cataloging for Archives and Manuscript Control) has "come of age," taking its place in the mainstream of both archival and cataloging thinking, theory, and practice. The meteoric rise in the use of MARC AMC is evident in the statistics reported by the bibliographic utilities. The literature of MARC AMC, although extensive, has not been reviewed since 1989 and does not systematically document the use of the format in U.S. academic archives. This paper presents a review of that literature and reports the results of a 1992 survey of 200 archivists, representing 200 academic archives in the United States. These respondents were randomly selected from the Society of American Archivists' 1991 Directory of Individual Members; they cooperated in a survey examining the use of MARC AMC for cataloging archival and manuscript collections. This paper profiles the institutional use of MARC AMC, including the choice of a cataloging standard, such as Steven Henson's Archives, Personal Papers and Manuscripts, Second Edition (APPM, Second Edition) and Anglo-American Cataloging Rules, Second Edition, Revised (AACR2R), chapter 4. The paper concludes with an admonition for archivists and traditional catalogers to work collaboratively to catalog archival and manuscript collections.

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U.S. MARC AMC (MACHINE-READABLE CATALOGING for Archives and Manuscript Control) has taken its place in the mainstream of both archival and cataloging thinking, theory, and practice. More than two decades have passed since the MARC Manuscripts format was introduced by the Library of Congress (LC) and implemented by the Online Computer Library Center, Inc. (OCLC) in 1973. This paper presents a current review of the literature on MARC AMC and reports the results of a survey of its use in 200 U.S. academic archives.

MARC AMC Comes of Age

It has been a decade since the MARC AMC format was approved by the American Library Association's (ALA's) Committee on Representation in MAchine-Readable Form of Bibliographic Information (MARBI),1 and since Stephen L. Henson's Archives, Personal Papers and Manuscripts (APPM)² was first published by LC. In addition, it has been ten years since OCLC and the Research Libraries Group's (RLG) Research Libraries Information Network (RLIN) implemented the MARC AMC format,3 and five years since Henson's Archives, Personal Papers, and Manuscripts: A Cataloging Manual for Archival Repositories, Historical Societies, and Manuscript Libraries, Second Edition (APPM, Second Edition)⁴ was endorsed as

the standard for archival description by the Society of American Archivists (SAA) Council.⁵ Further, it has been nine years since Henson forecast

The MARC Archival and Manuscripts Control . . . format has the potential to change the lives of archivists forever. The format provides a structure for description that is not only fully consistent with archival principles but also compatible with modern bibliographic description. Contemplating the possibilities for information sharing, automated union catalogs, network building, and computerized management is enough to make most archivists positively giddy. Not since the development of the acid-free folder has news this good broken upon the archival horizon. With this new freedom, however, there are new responsibilities.6

Henson's forecast has proven to be close to the mark. And, now, in the mid 1990s, the "giddiness" Henson forecast is past and the "responsibilities" he anticipated are all too real. MARC AMC has come of age, taking its place (for good or for ill) in the mainstream of archival and cataloging thinking, theory, and practice.

There is no doubt that MARC AMC seems firmly entrenched and that it is being used with increasing regularity, particularly in academic environments in the United States. In 1988 Henson reported that OCLC and RLIN databases combined held "almost 150,000 catalog records for man-

¹Working Group on Standards for Archival Description, "Archival Description Standards: Establishing a Process for Their Development and Implementation," *American Archivist* 52 (Fall 1989): 448.

²Stephen L. Henson, *Archives, Personal Papers* and *Manuscripts* (Washington, D.C.: Library of Congress, Cataloging Distribution Service, 1983).

³Working Group on Standards for Archival Description, "Archival Description Standards: Establishing a Process," 448.

⁴Stephen L. Henson, Archives, Personal Papers, and Manuscripts: A Cataloging Manual for Archival Repositories, Historical Societies, and Manuscript Libraries, Second Edition (Chicago: Society of American Archivists, 1989).

⁵Working Group on Standards for Archival Description, "Archival Description Standards: Establishing a Process," 449.

⁶Stephen L. Henson, "The Use of Standards in the Application of the AMC Format," *American Archivist* 49 (Winter 1986): 32.

uscript and archival materials."⁷ More recently, OCLC alone reported the inclusion of 174,468 MARC AMC records in its database,⁸ and RLG reported that the "RLIN AMC file is richer than ever," containing "more than 383,000 records."⁹

The Literature of MARC AMC

Both archivists and catalogers have held extensive discussions and debates about MARC AMC over the past two decades, and a wealth of material about the format has been published. However, there has been precious little survey work regarding the actual use of the format. The literature of MARC AMC had been well documented by the Working Group on Standards for Archival Description,10 but the 1989 bibliography (published in American Archivist) has never been updated. There has been a flurry of activity in the archival and library cataloging literature about MARC AMC since Michael Cook's Archives and the Computer¹¹ was first published in 1980 and since the first five MARC AMC articles were published in 1984.12

¹⁰Working Group on Standards for Archival Description, "Archival Description Standards: Establishing a Process," 494–502.

¹¹Michael Cook, *Archives and the Computer* (London: Butterworths, 1980).

¹²See Thomas Elton Brown, "The Society of American Archivists Confronts the Computer," *American Archivist* 47 (Fall 1984): 366–82; Michael J. Fox, "The Wisconsin Machine-Readable Records Project," *American Archivist* 47 (Fall 1984): 429–31; Richard H. Lytle, "An Analysis of the Work of the National Information System's Taskforce," *American Archivist* 47 (Fall 1984): 357–65; William J. Maher, "Administering Archival Automation: Development of an In-House System," *American Archivist* 47 (Fall Most publications were concentrated in the seven-year period from 1984 to 1991. During the four-year period from 1980 to 1983, publications about MARC AMC were scarce. No articles appeared during that period, although the first three monographs on the format were introduced.¹³ It is interesting that the first (and sole) master's thesis on MARC AMC did not appear until 1991,¹⁴ and that by 1992 (following the 1984–91 peak period), publications had dwindled further, to just one article.¹⁵ As of August 1993, no further works on the format had been published (see figure 1).

The literature of MARC AMC addresses the full spectrum of issues related to the format. The history of MARC AMC is well documented by a large group of publications.¹⁶ An array of publications ad-

¹⁴Sheila H. Martell, "Use of the MARC AMC Format by Archivists for Integration of Special Collections' Holdings into Bibliographic Databases and Networks," M.S.L.S. thesis, University of North Carolina at Chapel Hill, 1991.

¹⁵Joan Warnow-Blewett, "Work to Internationalize Access to the Archives and Manuscripts of Physics and Allied Sciences," *American Archivist* 53 (Summer 1992): 484–89.

¹⁶See David Bearman, Towards National Information Systems for Archives and Manuscript Repositories: The National Information Systems Task Force (NISTF) Papers, 1981–1984 (Chicago: Society of American Archivists, 1987); Robert D. Bohanan, "Developments and Options in Archival Automation," Journal of Educational Media and Library Sciences 25 (Autumn 1987): 1–21; Walt Crawford, MARC for Library Use: Understanding Integrated USMARC, Second Edition (Boston: G.K. Hall, 1989); Lytle, "An Analysis of the Work of the National Information System's Taskforce," 357–65; Martell, "Use of the MARC AMC Format"; Working Group on Standards for Archival Description, "Archival De-

⁷Stephen L. Henson, "Squaring the Circle: The Reformation of Archival Description in AACR2," *Library Trends* 36: 3 (Winter 1988): 539.

⁸SUNY/OCLC Network, "Bibliographic Records in the [OCLC] Online Union Catalog by Source of Cataloging," *Status Line* no. 57 (April 1993): 3.

⁹Research Libraries Group, "RLIN AMC File Richer Than Ever," *The Research Libraries Group News* no. 31 (Spring 1993): 10.

^{1984): 405–17;} and Alan M. Tucker, "The RLIN Implementation of the MARC Archives and Manuscript Control Format," in *Academic Libraries: Myths and Realities: Proceedings of the Third National Conference of The Association of College and Research Libraries*, edited by Suzanne C. Dodson and Gary L. Menges (Chicago: Association of College and Research Libraries, 1984), 69–79.

¹³See Cook, Archives and the Computer; H. Thomas Hickerson, Archives and Manuscripts: An Introduction to Automated Access (Chicago: Society of American Archivists, 1981); and Henson, Archives, Personal Papers, and Manuscripts (1983).

dresses the impact of the format on archival and cataloging education, theory, and practice.¹⁷ A host of publications considers "how-to" applications of MARC AMC, giving technical details and the implications of format integration.¹⁸ Another

¹⁷See David Bearman, "Archival and Bibliographic Information Networks," in *Archives and Library Ad*ministration: Divergent Traditions and Common Concerns, edited by Lawrence J. McCrank (New York: Haworth, 1986), 99-110; Thomas Elton Brown, "The Society of American Archivists"; Cook, Archives and the Computer (1980 and 2nd ed.); Michael Cook, The Management of Information from Archives (Aldershot: Gower, 1986); Michael Cook, "The Role of Computers in Archives," Information Development 5 (Winter 1990): 24-28; Patricia D. Cloud, "The Cost of Converting to MARC AMC: Some Early Observations," Library Trends 35 (Winter 1988): 573-83; Donald L. DeWitt, "The Impact of the MARC AMC Format of Archival Education and Employment During the 1980s," *The Midwestern Archivist* 16 (1991): 73-75; Anne J. Gilliland, "The Development of Automated Archival Systems: Planning and Managing Change," Library Trends 36 (Winter 1988): 519-37; Stephen E. Hannestad, "Clay Tablets to Micro Chips: The Evolution of Archival Practice into the Twenty-First Century," Library Hi Tech 9, no. 4 (1991): 75–96; Martell, "Use of the MARC AMC Format"; Richard V. Szary, "Information Systems for Libraries and Archives: Opportunity or Incompatibility?" in Archives and Library Administration, edited by McCrank: 61-98; Sarah Tyacke, "Special Collections in Research Libraries: Problems and Perspectives," Alexandria 2 (December 1990): 11-22; Lisa B. Weber, "Educating Archivists for Automation," Library Trends 36 (Winter 1988): 501-18; Working Group on Standards for Archival Description, "Standards for Archival Description," and "Archival Description Standards: Establishing a Process.'

¹⁸See William E. Brown, Jr. and Lofton Wilson, "The AMC Format: A Guide to the Implementation Process," *Provenance* 5 (Fall 1987): 27–36; Michael Cook, "The British Move Toward Standards of Archival Description: The MAD Description Standard," *American Archivist* 53 (Winter 1990): 130–38; Michael Cook, A MAD User Guide (Aldershot: Gower, 1989); Michael Cook and Kristina Gant, A Manual of Archival Description (London: Society of Archivists, 1985, 1986) 51; Michael Cook and Margaret Procter, A Manual of Archival DescriptionNew, 2nd Ed. (Aldershot: Gower, 1989); Crawford, MARC for Library Use; Max J. Evans and Lisa B. Weber, MARC for Archives and Manuscripts: A Compendium of Practice (Madison: State Historical Society of Wisconsin, group addresses the various MARC AMCrelated cataloging standards.¹⁹

1985); Henson, Archives, Personal Papers and Manuscripts (1983); Henson, Archives, Personal Papers and Manuscripts, (1989); Hickerson, Archives and Manuscripts"; Diana Madden "An Overview of the USMARC Archival and Manuscripts Control Format," S.A. Archives Journal 33 (1991): 47-59; Marion Matters, Introduction to the USMARC Format for Archival and Manuscripts Control (Chicago: Society of American Archivists, 1990); Sally H. McCallum, "Format Integration: Handling the Additions and Subtractions," Information Technology and Libraries 9 (June 1990): 155-161; Frederic M. Miller, Arranging and Describing Archives and Manuscripts (Chicago: Society of American Archivists, 1990); Katherine D. Morton, "The MARC Formats: An Overview," American Archivist 49 (Winter 1986): 21-30; Barbara Orbach, "So That Others May See: Tools for Cataloging Still Images," Cataloging & Classification Quarterly 11 nos. 3-4 (1990): 163-91; Howard Pasternack, "Online Catalogs and the Retrospective Conversion of Special Collections," Rare Books & Manuscripts Librarianship 5, no. 2 (1990): 71-76; Nancy Ann Sahli, "Interpretation and Application of the AMC Format," American Archivist 49 (Winter 1986): 9-20; Nancy [Ann] Sahli, MARC for Archives and Manuscripts: The AMC Format (Chicago: Society of American Archivists, 1985); Richard P. Smiraglia, "New Promise for the Universal Control of Recorded Knowledge," Cataloging & Classi-fication Quarterly 11, nos. 3-4 (1990): 1-15; David C. Sutton, "Full MARCs for Manuscripts," Catalogue & Index nos. 96-97 (Spring-Summer 1990): 1-4; and Lisa B. Weber, "Record Formatting: MARC AMC," Cataloging & Classification Quarterly 11, nos. 3-4 (1990): 117-43.

¹⁹See David Bearman, "Description Standards: A Framework for Action," American Archivist 52 (Fall 1989): 514-19; Jean E. Dryden, "Dancing the Continental: Archival Descriptive Standards in Canada," American Archivist 53 (Winter 1990): 106-8; Michael J. Fox, "Descriptive Cataloging for Archival Materials," Cataloging & Classification Quarterly 11, nos. 3-4 (1990): 17-34; Henson, "Squaring the Circle," 539-52; Henson, "The Use of Standards in the Application of the AMC Format," 31-40; Marion Matters, "Reconciling Sibling Rivalry in the AACR2 'Family': The Potential for Agreement on Rules for Archival Description of All Types of Materials,' American Archivist 53 (Winter 1990): 76-93; Edward Swanson, "Choice and Form of Access Points According to AACR2," Cataloging & Classification Quarterly 11, nos. 3-4 (1990): 35-61; Richard [V.] Szary, "Archival Description Standards: Scope and Criteria," American Archivist 52 (Fall 1989): 520-26; Sharon Gibbs Thibodeau, "Archival Arrangement and Description," in Managing Archives and Archival Institutions, edited by James Gregory Bradsher (Chicago: University of Chicago Press, 1989), 67-77;

scription Standards: Establishing a Process," 431– 537; and Working Group on Standards for Archival Description, "Standards for Archival Description," *American Archivist* 53 (Winter 1990): 22–108.

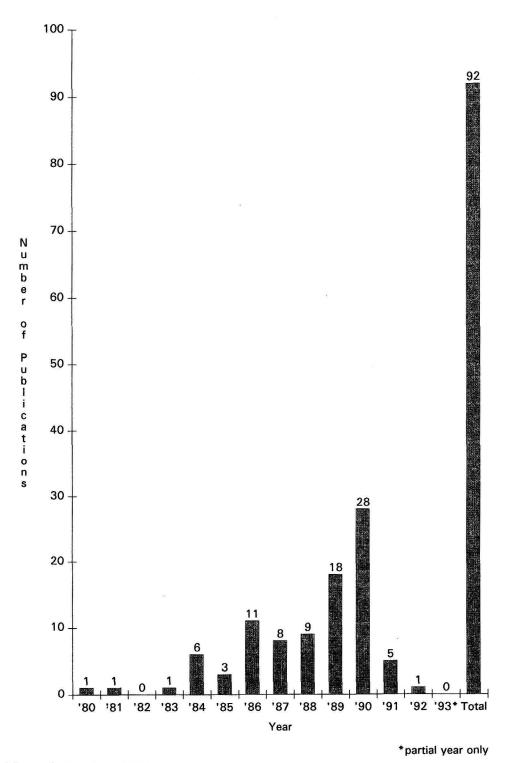


Figure 1. Number of MARC AMC Publications by Year.

In addition 6 articles discuss the application of MARC AMC to specific material types;²⁰ another group of 5 articles examines issues related to authority control, subject, and access;²¹ a larger group of 17 items addresses the impact of MARC AMC on the bibliographic utilities and networks, as well as on local and stand-alone systems;²² and 2 articles describe technical

²⁰See James Corsaro, "Control of Cartographic Materials in Archives," *Cataloging & Classification Quarterly* 11, nos. 3-4 (1990): 213–228; Linda J. Evans and Maureen O'Brien Will, MARC for Archival Visual Materials: A Compendium of Practice (Chicago: Chicago Historical Society, 1988); Janet Gertz and Leon J. Stout, "The MARC Archival and Manuscripts Format: A New Direction in Cataloging," Cataloging & Classification Quarterly 9, no. 4 (1989): 5-25; Martha Hodges, "Using the MARC Format for Archives and Manuscripts Control to Catalog Published Microfilms of Manuscripts Collections," Microform Review 18 (Winter 1989): 29-31, 34-35; David H. Thomas, "Cataloging Sound Recordings Using Archival Methods," Cataloging & Classification Quarterly 11, nos. 3-4 (1990): 193-212; Lisa B. Weber, "Describing Microforms and the MARC Formats," Archives and Museum Informatics 1 (Summer 1987): 9-13.

²¹See David Bearman, "Authority Control Issues and Prospects," *American Archivist* 52 (Summer 1989): 286–99; Marion Matters, "Authority Work for Transitional Catalogs," *Cataloging & Classification Quarterly* 11, nos. 3–4 (1990): 91–115; Richard P. Smiraglia, "Subject Access to Archival Materials Using LCSH," *Cataloging & Classification Quarterly* 11, nos. 3–4 (1990): 63–90; Lisa B. Weber, "The 'Other' USMARC Formats: Authorities and Holdings: Do We Care to Be Partners in This Dance, Too?" *American Archivist* 53 (Winter 1990): 44–54; Helena Zinkham, Patricia Cloud, and Hope Mayo, "Providing Access by Form of Material, Genre, and Physical Characteristics: Benefits and Techniques," *American Archivist* 52 (Summer 1989): 300–19.

²²See David Bearman, "Archival and Bibliographic Information Networks," *Journal of Library Administration* 7, nos. 2–3 (Summer-Fall 1986): 99–110; David Bearman, "Archives and Manuscript Control with Bibliographic Utilities: Challenges and Opportunities," *American Archivist* 52 (Winter 1989): 26– 39; Michael Cook, *Archives and Manuscripts Control: A MARC Format for Use with a Cooperative Online Database* (Liverpool: Liverpool University, Archival Description Project, 1987); W. Theodore Dürr, "At the Creation: Chaos, Control, and Automation—Commercial Software Development for Arand telecommunications issues and problems related to the format.²³

Although 9 articles do describe specific cataloging projects using MARC AMC,²⁴

chives," Library Trends 36 (Winter 1988): 593-607; Matthew Benjamin Gilmore, "Increasing Access to Archival Records in Library Online Public Access Catalogs," Library Trends 36 (Winter 1988): 609-23; H. Thomas Hickerson, "Archival Information and the Role of the Bibliographic Networks," Library Trends 36 (Winter 1988): 553-71; H. Thomas Hickerson, "Standards for Archival Information Management Systems," American Archivist 53 (Winter 1990): 24-28; Frederick L. Honhart, "The Application of Microcomputer-Based Local Systems with the MARC AMC Format," Library Trends 36: (Winter 1988): 585-92; Frederick L. Honhart, "MicroMARC:amc: A Case Study in the Development of an Automated System." American Archivist 52 (Winter 1989): 80-86; Fred[erick L.] Honhart, "MicroMARC:amc Version 2.11," OCLC Micro 6 (December 1990): 13; Maher, "Administering Archival Automation"; Lawrence J. McCrank, "The Impact of Automation: Integrating Archival and Bibliographic Systems," in Archives and Library Administration edited by McCrank: 61-98; Kathleen D. Roe, "The Automation Odyssey: Library and Archives System Design Considerations,' Cataloging & Classification Quarterly 11, nos. 3-4 (1990): 145-162; Kathleen D. Roe, "From Archival Gothic to MARC Modern: Building Common Data Structures," American Archivist 53 (Winter 1990): 56-66; Tucker "The RLIN Implementation"; David Weinberg, "Automation in the Archives: RLIN and the Archives and Manuscript Control Format," Provenance 4 (Fall 1986): 12-31; Ronald J. Zboray, "dBase III Plus and the MARC AMC Format: Problems and Possibilities," American Archivist 50 (Spring 1987): 210-25.

²³See Jill M. Tatem, "Beyond USMARC AMC: The Context of a Data Exchange Format," *Midwestern Archivist* 14 no. 1 (1989): 39–47; Sharon Gibbs Thibodeau, "External Technical Standards for Data Contents and Data Values: Prospects for Adoption by the Archival Community," *American Archivist* 53 (Winter 1990): 94–105.

²⁴See James M. Bower, "One-Stop Shopping: RLIN as a Union Catalog for Research Collections at the Getty Center," *Library Trends* 37 (Fall 1988): 252–62; James G. Carson, "American Medical Association's Historical Health Fraud and Alternative Medicine Collection: An Integrated Approach to Automated Collection Description," *American Archivist* 54 (Spring 1991): 184-91; Patricia D. Cloud, "Fitting In: The Automation of the Archives at Northwestern University," *Provenance* 5 (Fall 1987): 14–26; Leonard A. Coombs, "A New Access System for the Vatican Archives," *American Archivist* 52 (Fall 1989): 538–46; Fox, "The Wisconsin Machine-Readable Project"; Richard W. Hite and Daniel Linke, "Teaming Up with Technology: Team Processing,"

Lisa B. Weber, "Archival Description Standards: Concepts, Principles, and Methodologies," *American Archivist* 52 (Fall 1989): 504–13.

none of them specifically records the extent of use of MARC AMC by U.S. academic archives, or the choice of cataloging standard. Just one article, by Avra Michaelson,²⁵ researches actual use of MARC AMC. Michaelson reports the findings of a survey of 40 repositories in 1987. Her survey was, however, limited to 40 RLIN-reporting repositories, excluding all other RLIN-reporting repositories and all OCLCand Washington Library Network-reporting repositories. Conditions may well have changed since that study was completed.

Despite the increased use and acceptability of MARC AMC by archivists and catalogers alike, several questions remain:

- 1. Is anyone (or everyone?) actually cataloging archival collections and manuscripts using the format?
- 2. What AMC cataloging standard is employed?
- 3. Why was a particular cataloging standard chosen?

This study supplies the missing information regarding the use of MARC AMC by U.S. academic archives and the choice of AMC cataloging standard.

Methodology and Sample Questionnaire

In January 1992, a questionnaire was mailed to 200 archivists at 200 different academic archives in the United States, randomly selected from the SAA's 1991 Directory of Individual Members.²⁶ (See the appendix at the end of this article for a sample of this questionnaire.) The survey was intentionally designed to be simple and direct. It posed a select group of pertinent questions regarding the actual use of MARC AMC to catalog archival and manuscript collections, including questions regarding the choice of cataloging standard; the choice of archival and mansuscript catalogers; the training of archival and manuscript catalogers; and the use of MARC AMC in bibliographic utilities, local automated systems, and stand-alone, turnkey MARC AMC systems.

Survey results were tabulated and percentages were calculated and rounded to one decimal place. Initially, tables, ranking the responses for each survey question from greatest to smallest, were created. These tables were later amalgamated, incorporating several smaller groupings into larger ones.

Response to the survey was excellent: 140 of the 200 archivists (70%) responded. The random selection of the sample population assisted in ensuring that the full range of academic archives (small to large) was incorporated in the study. To confirm that all sizes were represented, respondents were asked to list the approximate size of their respective collection, in either linear or cubic feet. The respondents reported collections in the full range of sizes. Of the 140 respondents, 105 (75%) described their collections as ranging from 25 to 61,000 linear feet; 30 (21.4%) described their collections as ranging from 60 to 75,000 cubic feet; and five (3.57%) reported that their archives were too newly created (and largely unsurveyed) to approximate the size. There was no correlation between the size of institution or the size of archival

Midwestern Archivist 15, no. 2 (1990): 91–97; William M. Holmes, Edie Hedlin, and Thomas E. Weir, "MARC and Life Cycle Tracking at the National Archives: Project Final Report," American Archivist 49 (Summer 1986): 305–09; Curtis D. Jerde, "Technical Processing of Popular Music at Tulane University Library's Hogan Jazz Archive: The Rockefeller Project," Technical Services Quarterly 4 (Summer 1989): 53–60; Warnow-Blewett, "Work to Internationalize Access to the Archives and Manuscripts of Physics and the Allied Sciences."

²⁵Avra Michaelson, "Description and Reference in the Age of Automation," *American Archivist* 50 (Spring 1987): 192–208.

²⁶Society of American Archivists, *1991 Directory* of *Individual Members* (Chicago: Society of American Archivists, 1991).

and manuscript holdings and the likelihood that the collections were cataloged using MARC AMC. Institutions using MARC AMC encompassed the full spectrum of institutional and archival/manuscript holdings sizes. Respondents were also asked if their collections included manuscripts, in addition to archival materials. All 140 (100%) noted that their collections included both manuscript and archival collections.

Expectations

The study began with seven expectations regarding the use of MARC AMC in U.S. academic archives:

Expectation 1: MARC AMC is used by the majority of U.S. academic archives. Based on the vast discussion of MARC AMC at archival- and library-related meetings and conferences and the considerable volume (and saturation) of the MARC AMC literature, it is expected that the use of MARC AMC has similarly reached the saturation point, with the majority of institutions cataloging their archival and manuscript collections using MARC AMC.

Expectation 2: APPM, Second Edition, is the cataloging standard of choice in use by the majority of U.S. academic archives. Based on SAA's support, the verwhelmingly positive discussion in the literature, and the obvious incorporation of archival practices in APPM, Second Edition, it is expected that the vast majority of institutions would choose that standard.

Expectation 3: The majority of U.S. academic archives enter MARC AMC records into the OCLC database. Although the RLIN database holds the largest number of MARC AMC records, a smaller number of institutions (i.e., the larger research institutions, which hold more extensive and complex collections) enter more records in RLIN.

Expectation 4: The majority of U.S. academic archives enter their MARC AMC

records in a local automated system (in addition to a bibliographic utility), and these systems will vary widely. This expectation is based on the assumption that the entry of MARC AMC records parallels the entry of MARC records for traditional library formats, such as books and audiovisuals.

Expectation 5: Some U.S. academic archives enter their MARC AMC records in a stand-alone, turnkey system, such as MicroMARC:amc. Such turnkey systems, tailored to archival control requirements, boast a relatively low start-up cost and require far less training to operate effectively, as compared to most library automation systems. Also, the detachment or loose affiliation of some academic archives from the institution's library, combined with the incompatibility of archival data with library bibliographic data, makes turnkey systems an attractive choice.

Expectation 6: In the majority of U.S. academic archives, archivists are primarily responsible for cataloging the archival and manuscript collections using MARC AMC. Based on the expectation that archivists were the primary catalogers, it is appropriate also to expect that the SAA workshops would be the training mode of choice.

Expectation 7: The majority of those using MARC AMC have received some special training, primarily from SAAsponsored workshops. MARC AMC is a complex format, requiring some instruction (even on the part of seasoned archivists and catalogers) to employ it effectively and fully. SAA has continually sponsored the majority of—and the most in-depth— MARC AMC instructional sessions.

Results and Discussion

Use of MARC AMC. The survey results were interesting but, for the most part, not a surprise. The seven expectations proved to be close to the mark.

A majority of the 140 respondents (80, or 57.1%) reported cataloging their collec-

Category	Percentage	Number
MARC AMC ($n = 140$)		
Yes	57.1	80
No	42.9	60
Bibliographic Utility or Cataloging System ($n = 80$)		
OCLC	45.0	36
RLIN	25.0	20
WLN	3.8	3
Local system (OPAC) with bibliographic utility	62.5	50
Bibliographic utility only	11.3	9
Stand-alone, turnkey MARC AMC system only	21.2	17
Stand-alone, turnkey system with bibliographic utility	0.0	0
Local system only	5.0	4
Local System (OPAC) $(n = 54)$		
NOTIS	33.3	18
Institution's in-house system	16.7	9
CARL	13.0	7
III	7.4	4
VTLS	7.4	4
LIAS	7.4	4
PALS	5.5	3
multiLIS	5.5	3
GEAC GLIS	1.9	1
GEAC Advance	1.9	1
Stand-Alone Turnkey MARC AMC System ($n = 17$)		
MicroMARC:amc	70.6*	12
4th Dimension	5.9*	1
Brian Cole Associates	5.9*	1
Cuadra/Star	5.9*	1
Filemaker Pro	5.9*	1
GENCAT	5.9*	1
*+ .1 due to rounding.		

Table 1. Cataloging of Archival and Manuscript Collections by U.S. Academic Archives

tions using MARC AMC (see table 1). The remainder (60, or 42.9%) reported that their collections were not cataloged at all; That is, records for their collections were not included in a bibliographic utility or in a library printed card or automated catalog. Of these 60 respondents, 48 (80%) listed reasons why they did not catalog the collections. Forty-three (71.7%) stated they did not have enough money, staff, or time to do so, and 5 (8.3%) reported that, although they were not presently cataloging their collections, they were planning to do so in the near future.

All 80 respondents who stated they do use MARC AMC also reported that they catalog on line, using a bibliographic utility in combination with a local automated system, just a local automated system, or a stand-alone software package. Fifty-nine (73.8%) of the 80 reported cataloging on a bibliographic utility: 36 (45%) reported cataloging on OCLC; 20 (25%) reported cataloging on RLIN; and 3 (3.8%) reported

Standard	Percentage	Number
APPM, Second Edition	62.5	50
AACR2R, Chapter 4	22.5	18
Combination of APPM and AACR2R	27.5	22
Other institutional- or subject-specific	15.0	12
DCRB, Second Edition	0.0	0

Table 2. Cataloging Standard Employed by MARC AMC Users (n = 80)

cataloging on WLN. Fifty (62.5%) reported cataloging on a bibliographic utility in conjunction with a local automated system; 9 (11.3%) reported cataloging only on a bibliographic utility; and 17 (21.2%) reported that they cataloged on a stand-alone, turn-key system.

Of the 80 respondents, the 54 (67.5%) who reported cataloging on a local system were asked to identify the system they used. Eighteen (33.3%) reported using NOTIS; 9 (16.7%) used an in-house system; 7 (13%) used CARL; 4 each (7.4%) used III, VTLS, or LIAS; 3 each (5.5%) used PALS or multiLIS; and 1 each (1.9%) used GEAC GLIS or GEAC Advance. Three (5.3%) failed to respond to this question.

The 17 respondents who reported cataloging by only a stand-alone, turnkey system were also asked to specify the system they used. The vast majority (12, or 70.6%) reported using MicroMARC:amc. The remaining 5 were evenly divided (1 each, or 5.9%) among 4th Dimension, Brian Cole Associates, Cuadra/Star, Filemaker Pro, and GENCAT.

Choice of Descriptive Cataloging Standard. The cataloger using MARC AMC for archival and manuscript collections has a choice of descriptive cataloging standards, including two primary choices: *APPM*, Second Edition, and *Anglo-American Cataloging Rules*, Second Edition, Revised *AACR2R*, Chapter 4.²⁷ As noted earlier, these choices have been hotly debated and discussed in depth in the literature.

The 80 respondents using MARC AMC to catalog their archival and manuscript collections were asked which archival cataloging standard they used and were given a choice of APPM, Second Edition; AACR2R, Chapter 4; LC's Descriptive Cataloging of Rare Books, Second Edition (DCRB, Second Edition);²⁸ and "other." Respondents who selected the "other" category were asked to list the specific standard they used. More than half (50 or 62.5%) were using APPM, Second Edition, and 18 (22.5%) were using AACR2R, Chapter 4 (see table 2). Twenty-two (27.5%) said they used a combination of APPM, Second Edition, and AACR2R, Chapter 4, noting specifically that they used the former for archival collections and the latter for manuscripts and manuscript collections. Twelve (15%) reported using "other" standards: 11 (91.7%) used an institution-specific standard and 1 (8.3%) used a subject-specific (i.e., medical) standard. No respondents reported using DCRB, Second Edition.

The 80 respondents using MARC AMC were also asked to record their reasons for selecting a specific cataloging standard. Sixty-eight (85%) responded to the ques-

²⁷Michael Gorman and Paul W. Winkler, eds., *An-glo-American Cataloging Rules*, 2nd ed., 1988 rev. (Chicago: American Library Association, 1988).

²⁸Library of Congress, Office for Descriptive Cataloging Policy and Association of College and Research Libraries, Rare Books and Manuscripts Section, Bibliographic Standards Committee, *Descriptive Cataloging of Rare Books*, 2nd ed. (Washington, D.C.: Library of Congress, Cataloging Distribution Service, 1991).

Category	Percentage	Number
Collection catalogers ($n = 80$)		
Archivists and catalogers working together	60.0	48
Archivists solo	35.0	28
Catalogers solo	5.0	04
MARC AMC Training ($n = 80$)		
Yes	72.5	58
No	27.5	22
Type of Special Training ($n = 58$)		
SAA MARC AMC workshops	51.7	30
RLIN training sessions	24.1	14
OCLC or OCLC network training sessions	17.2	10
Institution in-house training sessions	17.2	10
Graduate-level courses	13.8	8
National Archives training sessions	10.3	6
State historical societies workshops	3.4	2
Combination of the above categories	41.4	24

Table 3. Collection Catalogers and Training

tion, and the responses centered on several key issues. Thirty-nine (48.8%) of the 68 commented that APPM, Second Edition, is "the" standard of choice for archival collections. One elaborated, saying, "AACR2R is like using a sledgehammer to do eve surgery." Thirty-one (38.8%) of the 68 attributed their choice of APPM, Second Edition, to its being recommended by RLIN trainers, SAA, or other archivists; 4 (5%) said they chose it because it is more clearly presented than AACR2R, Chapter 4; 4 others (5%) used AACR2R, Chapter 4, only as a supplement to APPM, Second Edition; and 2 (2.5%) reported having previous experience with APPM, Second Edition.

Twenty-four (30%) of the 68 said they used AACR2R, Chapter 4, for manuscripts and manuscript collections because it was "the" standard for manuscripts; 8 (10%) noted that OCLC trainers had recommended using AACR2R, Chapter 4, for archival collections; another 8 (10%) noted that their cataloging department chose AACR2R, Chapter 4, as a standard for manuscript and archival collections; and 3 (3.8%) said they did not know there was another standard.

Archivist Versus Cataloger. Of the 80 respondents who used MARC AMC, the majority (48, or 60%) stated archivists and catalogers worked cooperatively to catalog the archival and manuscript collections (see table 3). More than one-third (28, or 35%) reported that archivists cataloged the collections solo, contrasted with only 4 (5%) who said catalogers did the task alone.

Nearly three-quarters (58, or 72.5%) of those who used MARC AMC also reported that the archivists and catalogers who cataloged the collections had special MARC AMC cataloging training. Twenty-two (27.5%) said archivists and catalogers had no special training. The kind of training varied, and neither archivists nor catalogers were more likely to have had special training.

Of the 58 respondents reporting special training, about half (30, or 51.7%) had attended SAA MARC AMC workshops; 14 (24.1%) had received RLIN training; 10 (17.2%) had received OCLC or OCLC network training; 10 (17.2%) had had inhouse training; 8 (13.8%) reported taking

graduate-level courses including MARC AMC training; 6 (10.3%) had attended National Archives workshops; and 2 (3.4%) had attended state historical society workshops. Twenty-four (41.4%) of the 58 reported that their training had combined two or more of the alternatives.

Respondent Comments.

A free-text question gave respondents an opportunity to comment on the cataloging of archival collections. Of the 140 respondents, the vast majority (120, or 85.7%) did include free-text comments. These comments are perhaps the most intriguing and most telling portion of the survey, although they were not unexpected. Many were similar; select, representative categories and specific comments follow.

- As might be expected, some (31, or 22.1%) of the 140 respondents included descriptions of the type and scope of their institution's archival and manuscript holdings.
- A surprising number (65, or 46.4%) specifically noted "Archivists and catalogers *should* work together." Seventy (50%) offered specific details regarding how archivists, special collections staff, and catalogers work cooperatively at their institutions.
- Of the 54 respondents who use MARC AMC in conjunction with a local system, 15 (27.9%) briefly described their local systems. Although such comments were expected, a few (3, or 5.6%) of the 54 focused on how well or how poorly MARC AMC records survived in the specific localsystem environments.
- Some respondents used the opportunity to defend (or apologize for) their choice of a particular descriptive catalog standard. Two (2.5%) who reported using MARC AMC wrote, "I must use AACR2R, my on-line catalog

won't accept AMC records''; one (1.3%) noted, "Our Cataloging Department made us use AACR2 and they wouldn't take no for an answer."

• More than half (36, or 60%) of the 60 respondents who reported not cataloging their collections using MARC AMC provided very telling comments regarding why they were not or could not catalog their collections. These comments seem to say more about the less-than-positive status of many archives and special collections within the larger context of their respective academic institutions than about the efficacy of MARC AMC. Representative comments were, on one ex-"We're treme. mundane: very small-no need to catalog with MARC AMC"; "We're a new archives-just getting started"; and "No cataloging yet-hope to in the future." On the other extreme were the not-quite sublime: "My institution bought software for a stand-alone system but failed to buy the hardware"; "We survive mostly with volunteers-not enough people or time to catalog"; "Inventorying the collections is a high priority-cataloging is not"; "Not enough money, time or staff to catalog"; "Our institution doesn't support the archives"; and "Formal training? Are you kidding? No money here for that!"

Full Circle: Expectations and Confirmations

The results of this study are not surprising and, for the most part, they confirm the seven expectations listed earlier.

Expectation 1: MARC AMC is used by the majority of U.S. academic archives. The survey results confirm this expectation. A majority of academic institutions— 80 (57.1%) of the 140 total respondents are using MARC AMC to catalog their archival and manuscript collections. However, keeping in mind all the discussion and debate at archival and library conferences and in the MARC AMC literature, a higher percentage use of the format might have been expected. Comments garnered in the free-text sections of the survey also tend to confirm this expectation and to point toward even greater use of the MARC AMC in future. A need remains for greater education about the access and research benefits gained by using the format and by including MARC AMC records in national databases and local systems.

Expectation 2: APPM, Second Edition, is the cataloging standard of choice, in use by the majority of U.S. academic archives. The survey results also confirmed this expectation, with a majority (50, or 62.5%) of the 80 respondents who use MARC AMC reporting that the also use APPM, Second Edition. It was not surprising to learn that nearly one-quarter (18, or 22.5%) of the 80 use AACR2R, Chapter 4, for manuscripts and manuscript collections, or that 22 (27.5%) of the 80 use a combination of APPM, Second Edition, and AACR2R, Chapter 4. The fact that any respondents commented that their respective cataloging departments insisted on the use of AACR2R, Chapter 4, even for archival collections, is disappointing. The cataloging community clearly requires more education about the nature of archival collections and about archival theory and practice. This finding also points out the need for (and the benefit of) having catalogers and archivists work together to catalog archival and manuscript collections. Despite the fact that most institutions chose APPM, Second Edition as the cataloging standard, it would not be surprising to find that some institutions imposed an institution-specific standard or that certain subject disciplines (such as medicine) chose a subject-related standard.

Expectation 3: The majority of U.S. academic archives enter MARC AMC re-

cords into the OCLC database. The survey results did not clearly support this expectation. Of the 80 respondents who reported using MARC AMC, the greatest percentage (36, or 45.0%)—although not the majority—did report using OCLC. The next greatest percentage (20 or 25%) is using RLIN, and a small percentage (3 or 3.8%) is using WLN.

Expectation 4: The majority of U.S. academic archives enter their MARC AMC records in a local automated system (in addition to a bibliographic utility), and these systems will vary widely. The survey results confirmed this expectation; all 80 respondents (100%) who reported using MARC AMC said they cataloged on line in some manner, using a bibliographic utility in combination with a local automated system, just a local automated system, or a stand-alone software package. Also as expected, respondents who used a local system were using a wide range of systems, including NOTIS, CARL, III, VTLS, LIAS, PALS, multiLIS, GEAC GLIS, and GEAC Advance.

Expectation 5: Some U.S. academic archives enter their MARC AMC records in a stand-alone, turnkey system, such as MicroMARC: amc. This expectation was also confirmed; 17 (21.2%) of the 80 respondents who used MARC AMC cataloged only on a stand-alone, turnkey system. MicroMARC: amc was the primary system of choice, and (also as expected) respondents who chose the stand-alone, turnkey systems did not routinely report their holdings to any bibliographic utility. It is disappointing that databases created with these systems have not been routinely incorporated in the on-line cataloging of the home institution or in national bibliographic utilities. This possibility needs to be investigated and developed further by the various library and archival systems vendors, as well as by the bibliographic utilities.

Expectation 6: In the majority of U.S. academic archives, archivists are primarily

responsible for cataloging the archival and manuscript collections using MARC AMC. Survey results regarding this expectation were surprising. The majority (48, or 60%)of the 80 respondents who reported using MARC AMC also reported that archivists and catalogers worked cooperatively to catalog the archival and manuscript collections. A minority of respondents (28, or 35%) reported that only archivists (28, or 35%) or only catalogers (4, or 5%) cataloged the collections. This result is both encouraging and exciting. As the use of MARC AMC continues to grow, and as more and more MARC AMC records appear in local as well as in bibliographic utilities databases, it is imperative that archivists and catalogers work together to ensure that the most complete, accurate, and technically correct data and records are incorporated to give the researcher the best means of access. With cataloger and archivist each having different areas of expertise, it is not unreasonable to consider collaborating, rather than demanding that one or the other compensate and provide records that are less than meaningful or less than accurate.

Expectation 7: The majority of those using MARC AMC have received some special training, primarily from SAA-sponsored workshops. The survey results confirmed this expectation. Nearly three-quarters (58, or 72.5%) of the 80 respondents who use MARC AMC also reported that the archivists and catalogers who cataloged the collections had special MARC AMC training. Although the kind of training varied, the majority (30, or 51.7%) reported attendance at SAA AMC workshops. The wide range of opportunities for training proved gratifying, with RLIN, OCLC, OCLC networks, the National Archives, and state historical societies offering workshops. It is interesting that some respondents (8, or 13.8%) had received specific training in MARC AMC in graduate-level library science, information science, or archival courses.

Conclusion

These results are a confirmation that the "giddiness" Henson wrote about in 1986 is over and that the "responsibilities" he mentioned²⁹ are very real. It is the very real responsibility of archivists and catalogers alike to provide the most accurate and comprehensive access to academic archival and manuscript collections in order to fulfill the needs of researchers. It is also the responsibility of archivists and catalogers to keep watch over the evolution of MARC AMC and to see that the format's proponents and reformers carefully take into account the equally evolving needs of the practitioners and researchers who on a continuing basis must deal with the format and the information it contains.

MARC AMC has indeed come of age and has entered the mainstream of archival and cataloging thinking, theory, and practice. Its potential is tremendous. However, with just over half of the 140 respondents to this survey (80, or 57.1%) using MARC AMC, it is clear that the format's potential has yet to be fully realized. It remains the responsibility of archivists and catalogers to make certain that MARC AMC does not fall short of this potential.

In 1990 Lisa Weber speculated: "In MARC for Library Use, Walt Crawford states that 'MARC is the single most important factor in the growth of library automation in the United States and other countries.". . While it is still too early to tell whether the MARC . . . format will have the same impact in the archival community, it appears that some sort of revolution is in the making."³⁰ Further, just two short years after his 1986 forecast, Henson more poignantly stated the following:

²⁹Henson, "The Use of Standards in the Application of the AMC Format," 32.

³⁰Weber, "Record Formatting: MARC AMC," 117.

Considering the many fundamental differences between archives and libraries and between bibliographic and archival description, it is difficult to wonder why archivists would willingly subject themselves to the bibliographic angst of reconciling their practices with AACR2.... However, the pressures and dawning realization of the 'information age' made this position increasingly untenable. The mistake made along the way was to assume that the common element in archival materials and books lay in form—that is, 'words on their pages.' However, archives and manuscripts are not basically bibliographic in nature and it was not until it was realized that the similarities between published and unpublished materials lay in their features as tools of information and research, that the benefit of their natural alliance could be exploited. The presence of thousands of APPM/AMC cataloging records in bibliographic networks is testimony to the truth of that alliance."31

MARC AMC is here to stay, and it is fully entrenched in archival theory and practice in the United States. The format's face may change over time, and its applications may become broader as format integration becomes a reality during the next few years-nonetheless, MARC AMC is here to stay. As a result, archivists and catalogers are obligated to continue to forge even stronger alliances. Working together, they must use and mold MARC AMC to their best advantage and to the format's greatest and fullest potential (that is, providing full and accurate records for researchers across local, state, national, and international boundaries).

MARC AMC also has no bounds; it has, instead, an inherent limitless and very powerful potential. If the traditional cataloging community, together with the archival communities, can continue to work collaboratively to exploit the full potential of this format, they can provide researchers with more than they ever thought existed and they can begin to take the format into untried territory. But, our "forecasts" do not yet project that far, for that is the topic of another paper.

³¹Henson, "Squaring the Circle," 551.

Appendix 1

Sample MARC AMC Cataloging Survey (Revised 1/30/92)

- 1. Approximately how large is your institution's archival and/or manuscript collections? (Specify linear or cubic feet.)
 - _____ Linear feet

____ Cubic feet

- 2. Do your institution's collections include archival collections, manuscript collections, or both?
 - _____ Both archival and manuscript collections

_____ Archival collections only

- _____ Manuscript collections only
- _____ Other (specify: ______)
- 3. Does your institution catalog its collections using the MARC AMC format on OCLC, RLIN, WLN, a local system (OPAC), or a stand-alone turnkey MARC AMC system?
 - _____ No, (Go to questions 7 and 8)
 - _____Yes, on OCLC
 - _____Yes, on RLIN
 - ____ Yes, on WLN

Yes, on a local system (Specify: _____)

- Yes, on a stand-alone turnkey system (Specify: _____)
- 4. Which cataloging standard(s) is (are) used?
 - _____ APPM, Second Edition (Henson)
 - _____ AACR2R, Chapter 4
 - _____ DCRB, Second Edition
 - _____ Other (Specify: ______)

5. Briefly explain why the cataloging standard(s) listed in Question 4 was (were) chosen?

- 6. Who catalogs the collections?
 - _____ Archivists only
 - ____ Catalogers only
 - Archivists and catalogers working together
 - _____ Other (Specify: ______)
- 7. Did the archivists/catalogers receive special MARC AMC format training?
 - _____No

Yes (Specify source: _____)

- 8. Other comments regarding cataloging of archival and manuscript collections using the MARC AMC format:
- 9. If you would like survey results prior to publication, please list your name and address or enclose a business card: ______