Descriptive Cataloging : Theory and Practice

Descriptive cataloging consists of providing a physical and bibliographic description of an item, choosing the access points by which it may be retrieved in a catalog, and formulating those access points. Layne poses the functions of descriptive cataloging as follows:

First,... to provide access to the record for an object so that the record may be found by someone who can describe that object, either completely or incompletely.... The second function ... is to provide a helpful arrangement of records ... [so that the user] will be likely to find records for useful items.... Finally ... the third function of descriptive cataloging is to describe an object, describe it so that the user of the catalog can identify it either as the object he is seeking or as a potentially useful, although previously unknown, object [1].

Pre-20th Century Descriptive Cataloging

The function of descriptive cataloging, probably since the beginning of the written word, has been to provide information to users about the collection of works being described. "The library catalog is not a rude inventory of items; it is an organization of records designed to provide access to knowledge" [2]. This may be true today, but in medieval times, catalogs often were in fact "rude inventories of items." Only author and title, and occasionally a few other details, such as number of volumes or value of the item, were used to describe the libraries or collections which they listed. In the thirteenth century, scholars began using the first few words of the second folio of a work as a means of differentiating copies, because the hand lettering would differ for different copies. In the sixteenth century, further description was added, such as language and names of editors

and translators. These catalogs, however, were prepared by scholars or librarians without any particular consistency.

The first reported national code of cataloging rules was issued in 1791 by the French government as "... a set of instructions for the reorganization of the various libraries that had been confiscated during the Revolution" [3]. In 1841 Anthony Panizzi's code of ninety-one rules for the British Museum Library catalog was issued [4]. By 1900 there were at least six different codes in use in the United States, of which the most influential was Charles Ammi Cutter's *Rules for a Printed Dictionary Catalog*, first published in 1876 [5]. Librarians were beginning to focus on standardization, and in 1901 the Library of Congress (LC) began its catalog card distribution service, which greatly fostered that trend.

Description in the 20th Century

The major codifications of cataloging rules in the United States during the twentieth century have been produced with varying degrees of cooperation between the United States (represented by the American Library Association (ALA) and LC) and Great Britain (represented by the Library Association). This collaboration began with the ALA Publishing Board issuing: *Catalog Rules: Author and Title Entries* (American edition), in 1908 [6]. This work was revised in 1941 and then again in 1949 as the *ALA Cataloging Rules for Author and Title Entries* [7-8]. The 1949 revision included only the revision of part one of the 1941 code, with the goal of simplifying the rules for entries and headings. In addition, in 1949, LC issued *the Rules for Descriptive Cataloging in the Library of Congress* [9].

In 1953, influenced by Seymour Lubetzky's *Cataloging Rules and Principles* [10], a critique of the 1949 *ALA Cataloging Rules for Author and Title Entries*, ALA recommended a full revision of the 1949 code, and appointed a Catalog Code Revision Planning Committee. This committee's work over the next fifteen years resulted in the production of the *Anglo-American Cataloging Rules (AACR),* finally published in 1967 [11]. As a further indication of the widespread interest in standardization and cooperation in cataloging, an International Conference on Cataloguing Principles had been held in Paris, with representatives from fifty-four countries and twelve international organizations. The "Statement of Principles adopted at the International Conference on Cataloguing Principles, Paris, October 1961" [12], known commonly as the Paris Principles, served as the theoretical basis of *AACR*. However the final *AACR* did not conform entirely to the decisions as enumerated in the Paris Principles, reflecting LC's rejection of some of the principles. When the rules were finally published in 1967, they were issued in separate North American and British texts. A detailed history of the development of *AACR* appears in an article by Wyllis E. Wright, chairman of the ALA Catalog Code Revision Committee from 1954-1967 [13].

In 1969 a meeting sponsored by the International Federation of Library Associations (IFLA) was held in Copenhagen to discuss further international cooperation, and called for "the maximum standardization of the form and content of the bibliographical description" [14]. This call for what is known as "universal bibliographic control" led to the development and publication of the *International Standard Bibliographic Description for Monographic Publications*, known as *ISBD(M)* [15], which was adopted by LC in late 1974. This and later ISBD standards regulate the format and appearance of the various components of the bibliographic description. Other standards have followed for materials

in different formats, including the *ISBD(G)* [16] for the general description of library materials, issued to ensure consistency in all ISBD standards.

In 1974, a meeting was held at ALA headquarters that marked the beginning of the formal process of revising *AACR*. A summary of the goals and work of this committee that culminated in the 1978 publication of the second edition of *the Anglo-American Cataloging Rules* (*AACR2*) [17], is given by Carol R. Kelm, who was executive secretary of the ALA Resources and Technical Service Division (RTSD) during that time [18].

In 1988, revisions to *AACR2* were compiled and jointly published as *the Anglo-American Cataloguing Rules, 2nd ed, 1988 revision* (*AACR2R*) by the Canadian Library Association, Library Association Publishing (Great Britain), and the ALA [19]. This revision was prepared under the direction of the Joint Steering Committee for the Revision of AACR (JSC), which includes representatives from the ALA, the Australian Committee on Cataloguing, the British Library, the Canadian Committee on Cataloguing, the Library Association (Great Britain) and LC. This group continues to hold responsibility for making ongoing revisions to *AACR2R*, and further information about the makeup, functions and procedures of the JSC is described in the preface to *AACR2R* [20]. The JSC held an International Conference on the Principles and Future Development of AACR in Toronto in October 1997, to "review the underlying principles of AACR, with a view to determining whether fundamental rule revision is appropriate and feasible and, if so, advising on the direction and nature of those revisions" [21]. The conference was preceded by the wide electronic dissemination of discussion papers among the cataloging community for several months before the meeting, with opportunities for comments on them.

Descriptive cataloging in the United States is currently governed by *the Anglo-American Cataloging Rules, second edition, 1988 revision* (*AACR2R*), which incorporates ISBD standards. Along with Library of Congress rule interpretations (LCRIs), issued quarterly in the *Cataloging Service Bulletin* [22] and compiled in looseleaf format [23], *AACR2R* is the cataloging standard used by LC, the National Library of Medicine (NLM) and most major libraries in the United States.

Machine-Readable Cataloging (MARC) and Format Integration

Catalog records created by LC and NLM, and appearing in bibliographic utilities and many automated library systems, are in MARC format, the standard system of coding parts of the bibliographic record developed by LC for electronic distribution of these records. Coding information is issued by LC in the publication *USMARC Format for Bibliographic Data* [24] and in periodic updates. It is also provided in documentation supplied by the bibliographic utilities. The coding uses numbered fields to represent the function and type of data within the record. These include fixed length fields for coded data, and variable length fields for text. For example, 020 is used for the international standard book number, 245 is used for the title and statement of responsibility. Subfields are used to distinguish the data elements within the fields, and are represented by a delimiter (‡) and a single alphabetic or numeric character. For example, in the 245 field, the title proper is in ‡a, other title information is in ‡b, and the statement of responsibility is in ‡c.

Where in the past material was coded differently depending on what type of material it represented, these different MARC "formats" have now been integrated into a single coding system, one that validates all fields for all types of materials.

The goal of Format Integration is the creation of a single USMARC bibliographic format that provides the complete range of content designation for all types of materials and in which all information of the same type is identified by the same content designation. Format Integration provides for the communication of records for complex items whose descriptions may include serial, archival control, and/or multiple material-type aspects [25].

MARC content designation is now standardized for all formats of material, so catalogers do not need to learn different uses of codes for different materials. For example, under separate formats, an added title entry in the books format was most often coded as a 740 field, while in the serials format the 246 field was used for added titles. Under format integration the 246 is used as the primary added title entry field, no matter what format of material is being cataloged, and the 740 is reserved for use in all formats for "uncontrolled related titles" and "uncontrolled analytical titles". Another example is field 538, system details note, which previously was valid only for the computer files and visual materials formats. Under format integration, if a book has an accompanying disk, the system information that relates to the disk can be added in this specially coded field, rather than as a general note.

Format integration also allows the expression of the serial nature of any type of material in fixed field coding. In the past the cataloger had to choose a "format" in which to catalog an item. If more than one format could be used, for example, for a serial computer file or serial sound recording, the fixed fields of the MARC format chosen allowed the expression of either the work's type of material or serial characteristics, but not both. An additional fixed field is now provided to permit coding of the serial nature of the work, such as frequency, in addition to the coding for type of material.

The National Library of Medicine's Descriptive Cataloging Practices

NLM has published a statement which defines their descriptive cataloging practice in the introduction to the *National Library of Medicine Current Catalog* (1993 edition):

> The authority for the descriptive cataloging of all items cataloged from January 1, 1981 through June 1989 is the Anglo-American Cataloguing Rules, Second Edition, 1978 (*AACR2*) and Rule Interpretations from the Library of Congress (LC) published in the Library of Congress' Cataloging Service Bulletin. In July 1989, the Anglo-American Cataloguing Rules, Second Edition Revised, 1988 (*AACR2R*) replaced the 1978 edition of *AACR2* as the authority for descriptive cataloging.

> Personal and corporate name headings appearing in all cataloging records regardless of the date cataloged follow the Anglo-American Cataloguing Rules, Second Edition, 1978 (*AACR2*) or *AACR2R* rules and corresponding LC rule interpretations. In addition, name headings in all records cataloged after December 31, 1984, except limited cataloging ... are verified in LC's authority file and differences between the LC and NLM forms of the headings are reconciled.

> ... Current information regarding NLM's interpretations of cataloging rules and policies appears in the NLM Technical Bulletin. Earlier explanations of NLM's interpretations and application of cataloging rules were published from 1981 to 1985 in the Notes for Medical Catalogers [26], a section of the quarterly issues of

the NLM Current Catalog. These notes were cumulated annually and distributed

by the National Technical Information Service [27].

Because NLM and LC agreed to follow the same rules and interpretations of those rules, true record sharing and cooperation in cataloging became possible. These agreements allow libraries around the country to rely on cataloging copy created by either of these national libraries, and was an important step in establishing a true national standard for health sciences descriptive cataloging. Thus *AACR2R*, encompassing the form of description prescribed by ISBD, and accompanied by the LCRIs, has become the national standard for descriptive cataloging throughout the United States.

Health sciences libraries which intend to participate fully in shared cataloging activities should also plan to follow these standards. In order to create new catalog records, or to evaluate and verify existing records, and to correct and complete them if necessary, it is important to be familiar with the basics of bibliographic description. The following discussion of descriptive cataloging is intended as an introduction for the health sciences librarian, and includes examples of relevant materials from our literature, shown coded in MARC format. It is not intended to be exhaustive, and there are many tools described that can be used to solve specific problems that are not considered in detail here.

Description According to *AACR2R*

According to the general introduction to *AACR2R*,

> The rules cover the description of, and the provision of access points for, all
> library materials commonly collected at the present time. The integrated structure

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of the text makes the general rules usable as a basis for cataloguing uncommonly collected materials of all kinds and library materials yet unknown [28].

The rules are intended to be flexible enough to be used to describe anything that a library might collect now or in the future.

Following a general introduction, which describes the basis and structure of the rules, *AACR2R* is divided into two sections: Part I, Description, and Part II, Headings, Uniform Titles, and References. Each part also begins with an explanatory introduction which describes its basis and structure. Part I, chapter one, deals with general rules for description, after which each chapter deals with the rules for description of specific material formats:

Chapter 2. Books, pamphlets and printed sheets

Chapter 3. Cartographic materials

Chapter 4. Manuscripts (including manuscript collections)

Chapter 5. Music

Chapter 6. Sound recordings

Chapter 7. Motion pictures and videorecordings

Chapter 8. Graphic materials

Chapter 9. Computer files

Chapter 10. Three-dimensional artefacts and realia

Chapter 11. Microforms

Chapter 12. Serials

Chapter 13. Analysis

When preparing a description, the cataloger should first use the general rules in chapter one, and supplement them with the rules for the specific format or formats of material being described. For example, if cataloging a videorecording, the cataloger would use chapters one and seven in preparing the description. If describing a computer file that is issued serially, the cataloger would use chapters one, nine and twelve. There are a number of general guides to the use of *AACR2R* that are available [29-31], and some that focus on particular formats. The cataloger who will be working extensively with serials, audiovisuals, computer files or other non-monographic material should consult one of these specialized works [32-36].

Levels of Detail in the Description

Provision is made for description of materials at one of three levels of detail, each with an increasing amount of information. Rule 1.0D provides an outline of the elements that must be included, if they are available, in a record described according to each level. The first level of description includes the following elements:

Title proper

First statement of responsibility, if different from main entry heading in form or number or if there is no main entry heading

Edition statement

Material (or type of publication) specific details

First publisher, etc.

Date of publication, etc.

Extent of item

Note(s)

Standard number

Example of a title according to the first level of description, with MARC coding:

020   ‡a ISBN 0-910701-57-1

245 04 ‡a The successful nurse executive / ‡c Earl A. Simendinger, Terence F. Moore, Marlene Kramer, editors.

260   ‡b Health Administration Press, ‡c c1990.

300   ‡a x, 316 p.

The same title with the descriptive cataloging printed according to ISBD standards:

The successful nurse executing / Earl A. Simendinger, Terence F. Moore,

Marlene Kramer, editors. -- Health Administration Press, c1990.

x, 316 p.

ISBN 0-910701-57-1

The second level of description consists of the following elements:

Title proper

General material designation

Parallel title

Other title information

First statement of responsibility

Each subsequent statement of responsibility

Edition statement

First statement of responsibility relating to the edition

Material (or type of publication) specific details

First place of publication, etc.

First publisher, etc.

Date of publication, etc.

Extent of item

Other physical details

Dimensions

Title proper of series

Statement of responsibility relating to series

ISSN of series

Numbering within the series

Title of subseries

ISSN of subseries

Numbering within subseries

Note(s)

Standard number

Example of the same title as above, described according to the second level of description, with MARC coding:

020   ‡a ISBN 0-910701-57-1

245 04 ‡a The successful nurse executive : ‡b a guide for every nurse manager / ‡c Earl A. Simendinger, Terence F. Moore, Marlene Kramer, editors.

260   ‡a Ann Arbor, Mich. : ‡b Health Administration Press, ‡c c1990.

300   ‡a x, 316 p. : ‡b ill. ; ‡c 24 cm.

440 0 ‡a American College of Healthcare Executives management series

504   ‡a Includes bibliographical references and index.

The same example, printed according to ISBD standards:

The successful nurse executive : a guide for every nurse manager / Earl A.
Simendinger, Terence F. Moore, Marlene Kramer, editors. -- Ann Arbor, Mich. :
Health Administration Press, c1990.
x, 316 p. : ill. ; 24 cm. -- (American College of Healthcare Executives
management series)
Includes bibliographical references and index.
ISBN 0-910701-57-1

The third level of description includes all elements in the rules that apply to the item. The
title used in the examples above would not have any additional information if the third
level of description were used rather than second level description.

The most important factors to consider when deciding which level of description to use in
cataloging are the needs of the library's users. Most health sciences libraries find that
the level one description is not sufficient, primarily because it omits the series statement.
Full cataloging by LC and NLM generally falls between levels one and two of description
as defined by *AACR2R*. If the library subscribes to a bibliographic utility, described in the
section on cooperative activities, original cataloging must meet their standards, which
also fall between levels one and two. Conforming to these national standards is
important for resource sharing. It allows records to be provided to bibliographic utilities
or consortia outside the local institution, allows records from outside sources to be

incorporated into the local catalog and, if the library catalog is not automated, it will permit more accurate conversion to an automated system at some future time.

The health sciences library may decide to describe certain types of material more or less fully than others, and it is important that decisions about levels of description be documented in the library's cataloging manual. The examples provided throughout this chapter will be given between the first and second level of description. For additional examples and guidance in applying the rules, examples given in *AACR2R*, in the LCRIs and in published guides should also be consulted.

Chief Source of Information

The first step in describing an item is to identify the "chief source of information." This is based upon the format of material being described, and is provided in the first section in each chapter of *AACR2R*. For example, the chief source of information for books, pamphlets and printed sheets is the title page, while the chief source for motion pictures and videorecordings is the item itself (title frames). Alternatives are always provided. If there is no title page in a book, rule 2.0B1 instructs the cataloger to use "... the part of the item supplying the most complete information, whether this be the cover (excluding a separate book jacket), half title page, caption, colophon, running title, or other part" [37]. Any of these parts may be used as the title page substitute.

Areas of Description

The eight areas of description included in the *AACR2R* catalog record are:

Title and statement of responsibility area

Edition area

Material (or type of publication) specific details area

Publication, distribution, etc., area

Physical description area

Series area

Note area

Standard number and terms of availability area

Each of the eight areas of description has a "prescribed" source from which information should be taken. When information from outside the prescribed source is used, it is enclosed in square brackets. When describing a book, for example, the title and statement of responsibility must be taken from the title page or its substitute, and if obtained from some other source, the information must be bracketed. The edition statement, however, can be taken from the title page, other preliminaries or colophon, and if available from any of those sources, need not be bracketed.

A consistent numbering system is used for these eight areas of description across chapters, permitting easy comparison of the same area of description in general and in specific formats. For example, the title and statement of responsibility area is numbered 1.1 in the general chapter, the same area for books (chapter 2) is numbered 2.1, that area for sound recordings (chapter 6) is 6.1, and for serials (chapter 12) it is 12.1. This simplifies the catalogers task when consulting more than one chapter.

Title and Statement of Responsibility Area (X.1)

The cataloger transcribes information from the chief source of information (the title page for books) as instructed in section 1.1, with ISBD spacing and punctuation as prescribed. This section includes information about transcribing other title information and parallel titles, and gives details about how the information should be formatted and what can and should be omitted. The chapter dealing with the specific format of material being described should also be consulted for details or material-specific examples that might help in transcribing the information. The following examples are for books.

Transcribed description for figure 1:

    245 00 ‡a Foot and ankle : ‡b a sectional imaging atlas / ‡c David P. Mayer, Bruce Elliot Hirsch, William H. Simon.

Only the first word of the title proper is capitalized (‡a). Notice the punctuation separating the title proper (‡a) from the other title information (‡b), and separating the other title information from the statement of responsibility (‡c). Instructions for punctuation are given in chapter 1, and are formulated according to ISBD. Also notice that academic titles are omitted in transcribing the statement of responsibility.

Transcribed description for figure 2:

    245 00 ‡a Metal ions in biology and medicine : ‡b proceedings of the First International Symposium on Metal Ions in Biology and Medicine held in Reims (France) on May 16-19, 1990 = Les ions metalliques en biologie et en medecine : premier Symposium international sur les ions metalliques en biologie et en

medecine, Reims (France) 16-19 mai 1990 / ‡c edited by Philippe Collery ... [et al.].

Because more than three editors are named on the title page, following rule 1.1F5, only the first editor's name is transcribed, with the marks of omission and et al. added in brackets. In this case, the parallel title and other title information is transcribed in the title area.

Transcribed description for figure 3:

245 00 ‡a Olfaction and taste XI : ‡b proceedings of the 11th International Symposium on Olfaction and Taste and of the 27th Japanese Symposium on Taste and Smell : joint meeting held at Kosei-nenkin Kaikan, Sapporo, Japan, July 12-16, 1993 / ‡c K. Kurihara, N. Suzuki, H. Ogawa (eds.).

Lengthy other title information (‡b) may be omitted in the title and statement of responsibility area, and transcribed as a quoted note, as follows:

245 00 ‡a Olfaction and Taste XI / ‡c K. Kurihara, N. Suzuki, H. Ogawa (eds.).
500   ‡a "Proceedings of the 11th International Symposium on Olfaction and Taste and of the 27th Japanese Symposium on Taste and Smell : joint meeting held at Kosei-nenkin Kaikan, Sapporo, Japan, July 12-16, 1993."

The source of a quoted note is assumed to be the title page if no other source is given.

Edition Area (X.2)

The edition area is used to record the edition statement and any statement(s) of responsibility relating to the edition. *AACR2R* provides instruction in identifying, formulating and recording this information, and gives examples to aid the cataloger. For example, a person who is responsible for one or more editions of a work, but not all editions, is named in the edition area.

Transcription of the title and edition areas for figure 4:

    245 00 ‡a Hollinshead's textbook of anatomy.

    250   ‡a 5th ed. / ‡b Cornelius Rosse, Penelope Gaddum-Rosse.

Because Rosse was not responsible for all editions of this work, the statement of responsibility is transcribed in the edition area.

Material (or Type of Publication) Specific Details Area (X.3)

This area is defined at this time for cataloging only maps, music, serials, microforms and computer files. It is frequently used by health sciences libraries for describing serial publications (including serially-issued microforms) and comprises the numeric and/or alphabetic, chronological or other designation area of the serial. The numeric and/or alphabetic designation always is given first, and if it is accompanied by a chronological designation, that is given in parentheses, as in the following example.

On title page:

    Volume 64, number 1

January 1989

Coded numeric and chronologic designation:

362 0 ‡a Vol. 64, no. 1 (Jan. 1989)-

It is also used with computer files for recording file characteristics. For example, if the
information is readily available, one of the following phrases can be used:

256   ‡a Computer data

256   ‡a Computer program(s)

256   ‡a Computer data and program(s)

In addition, if the number of files is also readily available and can be expressed
succinctly, that information can be included in this area, in the format:

256   ‡a Computer data (375 records)

256   ‡a Computer programs (2 files : 5000, 3500 bytes).

Publication, Distribution, etc. Area (X.4)

This area includes information about the place of publication, the name of the publisher
and/or distributor and the date of publication. For a book, the cataloger would first
consult section 2.0B2 to find the prescribed sources of information for this area, which
are the title page, other preliminaries, or colophon. If the information about the publisher
is taken from any other source, it must be enclosed in brackets. Only the place in the
country of the cataloging agency is required if that is the first named place. If it is not

named first, the place named first is used, followed by a place in the country of the cataloging agency if there is one.

Transcribed description of publication, distribution, etc. area for figure 5:

260　　‡a Amsterdam ; ‡a New York : ‡b Elsevier, ‡c 1994.

Physical Description Area (X.5)

Physical description in *AACR2R* is divided into (‡a) extent of item, (‡b) physical data other than extent or dimensions, (‡c) dimensions of item, and (‡e) accompanying material. Each chapter gives specific examples of how this area is used for each of the material formats. For example, with books, pamphlets and printed sheets (chapter 2), extent of item is the number of pages, leaves, or number of volumes if more than one; physical data describes illustrative material; and dimensions are generally given for the height in centimeters. Instructions for describing accompanying material are also included, and punctuation as prescribed by ISBD is given.

Book Example:

300　　‡a vi, 345 p. : ‡b ill. ; ‡c 26 cm.

For computer files (chapter 9), extent of item is the number of disks or other physical carriers (‡a); other physical details describes whether the item produces sound or displays more than two colors (‡b); and dimensions are the size of the physical carrier(s) (‡c). Instructions are also provided for describing accompanying material (‡e).

Computer File Example:

300   ‡a 3 computer disks : ‡b sd., col. ; ‡c 3 1/2 in. + ‡e 1 user guide (38 p. :
ill. ; 28 cm.) + 1 keyboard template + 3 wall charts

For motion pictures and videorecordings (chapter 7), extent of item is the number and type of physical units (with playing time given if appropriate) (‡a); other physical details describes sound and color characteristics, and special projection requirements and projection speed for motion pictures (‡b); the dimensions area is used to provide the width of the film or videotape or the diameter of a videodisc (‡c). Instructions are also provided for describing accompanying material (‡e).

Videorecording Example:

300   ‡a 1 videocassette (54 min.) : ‡b sd., b&w ; ‡c 1/2 in. + ‡e 1 syllabus (155
p. ; 26 cm.)

Series Area (X.6)

A series is defined in the *AACR2R* glossary as: "A group of separate items related to one another by the fact that each item bears, in addition to its own title proper, a collective title applying to the group as a whole" [38]. The series statement often provides important information for access to an item in a health sciences catalog. The series statement is recorded in this area, and each chapter in *AACR2R* provides some relevant examples of the kinds of series statements that might be found when cataloging

material in various formats. Series statements sometimes appear in different forms in different places in a publication. *AACR2R* instructs the cataloger to use the series statement that appears on the first of the prescribed sources of information, according to the format of material.

For example, the prescribed sources of information for series in books are the series title page, monograph title page, cover, and rest of the publication. Thus, if the series statement appears in two different formats on a series title page and the monograph title page, the cataloger would transcribe the series in the format found on the series title page.

On cover of same book used in figures 6 and 7:

> The Einstein Psychiatry Series

Transcribed series description for figures 6 and 7:

> 440 3 ‡a An Einstein psychiatry publication ; ‡v 9

In this example, the series entry and numbering format are taken from the series title page, the first-named, preferred, source of information.

Note Area (X.7)

The order in which notes are to be given is prescribed in the rules, but there is a preliminary rule that instructs the cataloger to "... give a particular note first when it has

been decided that note is of primary importance" [39]. *AACR2R* provides extensive examples of the format that should be used in transcribing different kinds of notes in the general rules chapter and in the chapter for each type of material, with notes specific to each type of material used as examples.

Standard Number and Terms of Availability Area (X.8)

This area provides information that can be used to obtain the material which has been described. The international standard number is used; for books, this is the ISBN, and for serials it is the ISSN. If more than one number appears on an item, the one pertaining to the item in hand is used, or the numbers are qualified for identification. Terms of availability include price or other brief statement.

Choice of Access Points and Form of Headings

Choice of Access Points

Once the description has been formulated for a catalog entry, the cataloger must choose access points and formulate them. This is critical for the work to be located by the library's users, and without sufficient access points the item may be overlooked by those who need the information contained within it. *AACR2R* chapter 21, Choice of Access Points guides the cataloger in the selection of both main and added entries. It includes an introductory section which discusses what is covered in the chapter, sources from which information is to be taken, and the form of examples. The general rule, section 21.1, defines works of personal authorship, entry under corporate body, and entry under

title. Sections 21.2 and 21.3 cover changes in titles proper and persons or bodies responsible for a work.

Main entry is defined in the *AACR2R* glossary as: "The complete catalogue record of an item, presented in the form by which the entity is to be uniformly identified and cited" [40]. There has been discussion over the years about whether the concept of the main entry has outlived its usefulness. This discussion has been quite active since the time that the unit card came into wide use and has intensified with the increasing move toward online catalogs. With the unit card system, each entry (whether main or added) headed a card that was a reproduction of the main entry card, and included all or much of the description of the item. Thus, the card catalog user had available all of the information about the item at every access point. In the online catalog, the same situation exists; at every access point the full record is usually displayed. At this time, however, a main entry is still prescribed by *AACR2R* and used by both LC and NLM. It is useful in bibliographies, in other single-entry listings of items, and to provide a uniform form for reference.

The sections from Chapter 21.4 to 21.7 indicate the choices of main entry: 21.4, works for which a single person or corporate body is responsible; 21.5, works of unknown or uncertain authorship or by unnamed groups; 21.6, works of shared responsibility; and 21.7, collections and works produced under editorial direction. Each situation is defined and discussed and examples of each are provided to help the cataloger make that choice.

Another section of this chapter of particular importance to health sciences catalogers is 21.12, revisions of texts. This section provides guidelines for deciding whether a work

should be entered under the original author (section 21.12A), or under the reviser or title (section 21.12B). In the former case, the original author is still considered responsible for the work when he or she is named in a statement of responsibility, or when he or she is named in the title proper and no other person is named as responsible for the revision. In the latter case, although the original author may be named as part of the title, another person is named as being responsible for the edition in hand.

Selected descriptive fields and access points for figure 8:

      100 1 ‡a Arnold, Harry L.

      245 10 ‡a Andrews' diseases of the skin : ‡b clinical dermatology.

      250   ‡a 8th ed. / ‡b Harry L. Arnold, Jr., Richard B. Odom, William D. James.

      700 1 ‡a Odom, Richard B.

      700 1 ‡a James, William D.

      700 1 ‡a Andrews, George Clinton, ‡d 1891- . ‡t Diseases of the skin.

This is an example of the latter case, because there are three persons named as responsible for this edition of the work. Arnold would be chosen as the main entry, and an author-title added entry should be provided for the earlier edition by Andrews.

Specific rules are given in section 21.29-21.30 which instruct the cataloger when to make added entries. There is also broad latitude afforded to the cataloger in section 21.29C, which states "... make an added entry under the heading for a person or a corporate body or under a title if some catalogue users might suppose that the description of an item would be found under that heading or title ..." [41]. Thus the cataloger may choose to add headings not specifically called for by the rules if it is important in his/her institution.

Form of Heading

Chapters 22 through 24 provide instructions on how to choose and construct the form of name to be used by the cataloger for main or added entries. Chapter 22, Headings for Persons, includes sections covering choice of name, entry element, additions to names, and special rules for names in certain languages. The general rule for choice of name is to "... choose, as the basis of the heading for a person, the name by which he or she is commonly known" [42]. Although this seems straightforward, there are a wide range of situations that are discussed in this section, including how to choose the predominant name, how to deal with pseudonyms, how to deal with changes of name, and choosing among different forms of the same name. The choice of entry element is discussed in sections 22.4 through 22.11. Although the most commonly-seen entry element in English-language health sciences materials is surname, there are specific instructions for how to choose an entry element for names in various foreign languages, compound surnames, titles of nobility, entry under given names and others.

Chapter 23 discusses the form of geographic name to choose in constructing headings, and generally instructs the cataloger to use the English form of the name if there is one in general use. There are many specific examples providing information about when and when not to include additions to the geographic name. These forms are used not only when the geographic entity is included as an entry, but also when the geographic name is used as an addition to another entry. A common example of this usage is in formation of conference headings, when place name forms the last element of the heading. If instructed in chapter 23, the place name may require that the name of a larger jurisdiction be added to it. For example, although states of the United States don't

require any addition, when using the name of a place within a state, the state is added in parentheses, abbreviated according to the list in the *AACR2R* appendix, such as California, for the state, and Los Angeles (Calif.), for the place within the state.

Chapter 24, Headings for Corporate Bodies, is frequently required to provide guidance in formulating headings for use with health sciences materials. The primary basis for choosing the form of heading throughout the chapter is given in the general rule, "Enter a corporate body directly under the name by which it is commonly identified, except when the rules that follow provide for entering it under the name of a higher or related body (see 24.13) or under the name of a government (see 24.18)" [43].

The chapter includes information on creating headings for variant names, additions, omissions and modifications (including formulation of conference names), subordinate and related bodies, government bodies and officials and religious bodies and officials. Section 24.7, Conferences, congresses, meetings, etc., includes numerous examples to help the cataloger formulate a heading when cataloging the proceedings or papers from a conference.

Name and Series Authority Files

Technology does not eliminate the need for selecting and establishing forms of entry.
As long as finding and gathering remain the functions of the library catalog, the selection of entries will continue and the authority work of establishing them and recording information about them, their variations, and their relationship to other headings will persist [44].

The form of name (or the series title) that is chosen as an access point for a work should be recorded, along with any cross-references to it, either in a manual file or an electronic file. This will save the cataloger from going through the same procedure each time an item with the same heading is cataloged.

Many libraries have electronic access to LC's name authority files. Records from that file can be searched and downloaded into the local system's own authority module, providing the catalog users with cross-references from the form of name or series title not chosen as access points to those under which entries are made. In other cases, a library which is not automated may use a card file to record name authority records, and put cross-reference cards into their catalog to lead users to the form of name or series title that is used.

It is helpful to the user to have all entries for the same name or series title appear in the catalog together. This can be a daunting prospect when the catalog is an old one, and names have been formulated and works cataloged under a succession of older catalog rules. Automated changing of forms of names may not be possible in every catalog, so the cataloger must make decisions about integrating the catalog. Should previous forms of a heading be changed to conform to the *AACR2R* form? Should cross-references be entered in the catalog to refer users from an older form to a newer one and vice versa? These questions must be answered according to the needs and resources of the individual library, and the decision that the cataloger makes should be documented in the library's cataloging manual. Detailed discussion of these issues appears in chapter five.

Cataloging Specific Types of Materials

Although the cataloging rules are the same for all types of libraries, some of the types of materials that commonly occur in the health sciences literature present special problems for catalogers. Several of those will be discussed here: conference proceedings, monographic series, loose-leaf publications, serials, audiovisual materials, computer files, and archives and rare books.

Cataloging Conference Proceedings

Conference proceedings on medical and health-related topics appear frequently, and may be difficult to describe. For example, in order to decide whether an item should have a conference name as the main entry, the cataloger must carefully trace through the rules. First, the general rule for entry under corporate body, rule 21.1B2, states,

> Enter a work emanating from one or more corporate bodies under the heading for the appropriate corporate body (see 21.4B, 21.5B) if it falls into one or more of the following categories: ... d) those that report the collective activity of a conference ..., provided that the conference, ... is prominently named (see 0.8) in the item being cataloged [45].

The two rules referred to (21.4B and 21.5B) describe works that emanate from a single corporate body and works that "probably emanate from a particular corporate body". It is usually evident either from information on the title page or elsewhere in the work that the work reports the "collective activity of the conference". Section 0.8 would then be consulted to see if the conference is prominently named, that is "... a statement to which it applies must be a formal statement found in one of the prescribed sources of information (see 1.0A) for areas 1 and 2 for the class of material to which the item being

catalogued belongs" [46]. Because this is a book, the cataloger is referred to Section 2.0A, which lists the sources of information to be used: the title page, preliminaries and colophon.

Entry and transcription of title and statement of responsibility area for figure 9.

> 111 2   ‡a International Conference on Alzheimer's Disease and Related Disorders ‡n (3rd : ‡d 1993 : ‡c Padua, Italy).
> 245 10   ‡a Alzheimer's disease and related disorders : ‡b proceedings of the 3rd International Conference on Alzheimer's Disease and Related Disorders, held in Padova, Italy on 12-17 July 1993 : selected communications / ‡c editors, M. Nicolini, P.F. Zatta, B. Corain.

This item represents proceedings of a conference, and the conference is named prominently in the item. Thus the conference name is chosen as the main entry.

In addition to making the decision about whether or not to enter the work under the conference name as main entry, that name may be given in two or more different forms in the item. The cataloger is instructed in rule 24.1A to choose the form "... by which a corporate body is commonly identified ..." and in rule 24.2B "..use the name as it appears in the chief sources of information as opposed to forms found elsewhere in the item" [47]. Following this rule, the heading in the example is established based on the form given on the title page.

Cataloging Monographic Series

A monographic series is defined in *AACR2R* as "A group of separate items related to one another by the fact that each item bears, in addition to its own title proper, a collective title applying to the group as a whole. The individual items may or may not be numbered" [48]. They may be treated in one of four ways. First, they may be described together and shelved together unclassed. Second, they may be described together and classified together. Third, they may be described separately and classified together. Finally, they may be described separately and classified separately, with the series entry traced (in an added entry) or not.

If the series is numbered, the subject matter is quite similar, and if the series is indexed in a major periodicals index, such as *Index Medicus*, it may not be necessary to describe each volume with its own separate record. A serial record can be created for the series as a whole. Examples of this type of series are *Pediatric Clinics of North America* and *Immunological Reviews*. Both are indexed in *Index Medicus*. If the subject matter is very diverse from one volume to the next, or the series is not indexed, or if for some other reason it is appropriate for the particular institution, the cataloger may assign a separate record to each volume as for ordinary monographs. Two examples of titles that fall into this category are *Advances in Experimental Medicine and Biology*, and *Lung Biology in Health and Disease*. The former series is an excellent candidate for classifying separately, because it has a widely diverse subject matter. The latter, because the subject matter is rather narrow, would be an appropriate candidate for classifying together.

Rules covering the series area should be followed in choosing the series name. Extensive LCRI's have been issued covering the series area. These, in addition to LC

name authority files, should be consulted to aid the cataloger in deciding whether and how to identify a series heading.

Cataloging Loose-leaf Publications

Adele Hallam, in her introduction to *Cataloging Rules for the Description of Looseleaf Publications*, states "In considering "looseleaf" it is first of all necessary to distinguish between publications that are merely issued in looseleaf format and those that are issued in this format for the specific purposes of updating" [49]. The former type are cataloged just as are any other monographs, but the latter type are more problematic. LC does not consider them as serials, and, although they are not monographs per se, catalogs them in the monograph format. Although the great majority of these loose-leaf publications are legal materials, the health sciences cataloger will often encounter them as well. The most common type includes a base volume supplemented by periodic updates, with instructions to insert pages into the main volume, and delete outdated pages. They provide a challenge to the cataloger because the title page, which is used as the basis for the catalog description, changes frequently--sometimes with every update.

An LCRI to section 2.5B9, which gives instructions for providing pagination for loose-leaf publications, refers the cataloger to Hallam's work [50]. This work uses the *AACR2R* numbering format in providing guidance for describing these materials. Following Hallam's instructions, loose-leaf publications are generally described using the latest title page or substitute as the prescribed source of information for the title and statement of responsibility area, the edition area, and the publication and distribution area. The earliest title page or substitute should be used for the date of publication or distribution.

Catalogers who find themselves working extensively with loose-leaf material should have this publication.

Cataloging Serials : *AACR2R* **Chapter 12**

Serials cataloging is another challenge that will face the health sciences cataloger. The cataloger is instructed to use as the chief source of information for printed serials the "... title page ... or the title page substitute of the first issue of the serial. Failing this, the chief source of information is the title page of the first available issue" [51]. If a record is not available and the cataloger doesn't have the first issue of the serial, then cataloging must be done using the first available issue, and a note is added to the record indicating which issue was used.

Title changes are often encountered when cataloging serials. This most often happens at the end of a volume or year, but publishers sometimes change serial titles in mid-year or mid-volume. When a title changes, a new catalog record must be created for the new title, following *AACR2R* section 21.2C: "If the title proper of a serial changes, make a separate main entry for each title" [52]. An LCRI to rule 21.2A adds a number of situations to those used as examples in *AACR2R*, which provide additional cases in which the title is NOT considered to have changed [53]. The rule and LCRI include examples of such minor changes as singular vs. plural form of words, changes that come after the first five words (and don't change the meaning of the title), hyphenated words vs. unhyphenated words, signs and symbols vs. spelled-out forms of words, numbers or dates vs. spelled-out forms, one spelling vs. another spelling, and others. This rule provides that a new entry need not be created for only minor or orthographic

changes in a serial or monographic series title. In these cases, an added entry for the variant title is added to the catalog record for the original title.

If an identical title already exists in the catalog, then a uniform title must be created with a parenthetical qualifier to differentiate the two. For example, from 1980-1984, a journal was published under the title: *American Journal of Reproductive Immunology : AJRI*. In 1985, the title was changed to*: American Journal of Reproductive Immunology and Microbiology : AJRIM*. When the title changed again in 1989 back to: *American Journal of Reproductive Immunology : AJRI*, a uniform title was created in order to distinguish this entry from the earlier identical title. The uniform title*, American journal of reproductive immunology (New York, N.Y. : 1989)* was created by adding the place of publication and the date of the publication of the first issue. Instructions for when and how to create these qualifiers with special emphasis on serials appears in an extensive LCRI to rule 25.1 [54].

Occasionally LC or NLM catalog a serial under one title, but the *Index Medicus* entry appears under another title. Because much of the use of the serial collections in health sciences libraries originates with an *Index Medicus* or MEDLINE search, this can cause problems for the user who is trying to locate that material. There are several possible solutions to this problem. The catalog entry may be changed in the local catalog to match the *Index Medicus* entry; or the cataloged title may be used, but have an explanatory note prominently displayed and an added entry supplied for the *Index Medicus* entry.

Cataloging Audiovisual Materials : *AACR2R* Chapters 6-8

One of the difficulties in doing original or copy cataloging of audiovisual materials is that equipment is not always available or convenient for viewing the material. The preferred chief source for audiovisual materials is the title screen or frame or the credits, so the work should be viewed before doing original cataloging. Sometimes arrangements can be made to view materials in the library, but the cataloger may have to go to a remote location or rely on others to verify the information in a bibliographic record. If it is not possible to view the material, the cataloger is instructed to use the container if it is an integral part of the piece, printed documentation, or other sources, and should add a note to the record giving the source of information.

An example of selected fields for a videocassette that was not viewed:

245 00 ‡a Infection control in the dental environment. Solutions in dental management ‡h [videorecording] / ‡c [presented by William C. Strupp, Arthur K. Weathers].

260   ‡a Clearwater, Fla. : ‡b Video Study Club, ‡c [1988].

440 0   ‡a Video study club ; ‡v v. 25-26

500   ‡a Title from cassette label; series information from container.

500   ‡a Vol. 26 also titled: Verbal skills and solutions in dental management.

740 2 ‡a Solutions in dental management

740 2 ‡a Verbal skills and solutions in dental management

In this case a general note is used to explain the source of the title and series information. In addition, because publishers frequently use more than one form of a title on audiovisual materials, the cataloger should be sure to make added entries for all titles

found prominently on an item. Because the added titles in the above example do not refer to the work as a whole, they are entered in the 740 field. If they referred to the work as a whole, they would be entered in a 246 field.

Cataloging Computer Files (Including Remote-access and Interactive Multimedia Materials) : *AACR2R* Chapter 9

These materials share the difficulty with audiovisual materials that it is often a problem to view the chief source of information (the title screen). Also, title information may be provided in quite different forms on various pieces that make up a package. That is, the title given on the title screen may differ from that given on manuals, disk labels, and containers. The chief source should be consulted, if possible, in choosing the main entry, but other titles should always be supplied as added entries, because they are sometimes more widely known than the title that appears on the title screen. One requirement for computer files that currently differs from other types of material is that a note giving the source of the title is required.

The following is an example of selected fields for a software program:

245 00 ‡a Cardiac arrest! ‡h [computer file] : ‡b cardiac resuscitation simulator / ‡c Bruce Argyle.

246 30 ‡a Cardiac resuscitation simulator

246 1   ‡i Title on disk label: ‡a Advanced cardiac life support simulation software

246 1   ‡i Title from manual: ‡a Advanced cardiac life support simulator

250   ‡a Version 4.2.

260   ‡a Alpine, Utah : ‡b Mad Scientist Software, ‡c 1993.

440 0 ‡a ACLS teaching series

538   ‡a System requirements: IBM PC or compatible with color or hercules graphics card; 256K RAM; DOS 2.0 or higher.

500   ‡a Title from title screen.

500   ‡a Series statement from manual.

As can be seen, liberal use is made of added title entries, as well as notes giving the source of the title and series information. The system requirements note is a required field, is taken from the item or its documentation, and takes precedence over other general notes. The order of information in the systems requirement note, the requirement for the note giving the source of title, and the order of other notes is specified in *AACR2R,* section 9.7 [55].

Material that is available through remote access (via computer networks) is becoming more important in libraries. As Wilson points out,

> If a catalog is a guide to the contents of a collection available at a place, then a catalog must include the virtual as well as the actual copies available at that place.... As far as the user is concerned, listing a microform in a catalog is listing a virtual copy, and it is a short step from this to listing a virtual copy producible by calling up a remote source [56].

The cataloger may be called upon to decide what remote-access materials, if any, should be included in the library's catalog. This may include items which the library licenses or subscribes to or free access items. The primary caveat to wholesale inclusion of remote resources is that the library lacks control over the currency and even the continued existence of these resources. The library may not know if the items are

removed from the remote source, and records for these non-existent items may remain in the catalog. Software programs are available that will verify the continued existence of remote resources, and their use should be considered if the library includes these materials in its catalog.

For remote access versions of printed journals, serials catalogers have the option of creating a separate bibliographic record for the remote access version or adding information to the bibliographic record for the printed version. This compromise was announced by the CONSER (Cooperative Online Serials) program in 1996, and is documented in the *CONSER Cataloging Manual* [57].

The following is an example of selected fields for a journal title that has printed and remote access versions on a single record:

130 0   ‡a Scientist (Philadelphia, Pa.)

245 04 ‡a The scientist.

362 0   ‡a Vol. 1, no. 1 (Oct. 20, 1986)-

530   ‡a Also available electronically, 1992?-

856 7   ‡2 gopher ‡3 Full-text: ‡u gopher://ds.internic.net/11/pub/the-scientist

856 4   ‡3 Full-text: ‡u http://www.the-scientist.library.upenn.edu/

This shows a uniform title, numeric/chronological information about the paper version, a note indicating when the electronic version became available, and fields giving the electronic location of the journal, the uniform resource locator (URL).

The following is an example of selected fields for a separate record for an electronic version of a serial.

130 0   ‡a Journal of biological chemistry (Online)

245 00 ‡a Journal of biological chemistry ‡h [computer file].

246 13 ‡a JBC online

246 30 ‡a JBC

250   ‡a Online version.

500   ‡a Title from journal home page.

856 4   ‡u http://www-jbc.stanford.edu/jbc/

856 4   ‡u http://highwire.stanford.edu/jbc/

856 7   ‡3 Table of contents: ‡u
gopher://exogene.genethon.fr:/70.11/Biblio/Journaux/Journal%20of%Biological%
20Chemistry/ ‡2 gopher

This shows a uniform title for the online version, the general material designation, computer file in the title field, several different forms of the title, a version statement, the source of the title proper, and several fields with URLs for the resource.

A useful tool for cataloging remote access material is: *Cataloging Internet Resources : a Manual and Practical Guide* [58]. This guide follows *AACR2R*, its 1993 amendments and the *International Standard Bibliographic Description for Electronic Resources (ISBD(ER))* [59]. It includes information and numerous examples for describing remote access materials.

Guidelines have been issued by the American Library Association for cataloging interactive multimedia materials, defined as

> ...media residing in one or more physical carriers (videodiscs, computer disks, computer optical discs, computer audio discs, etc.) or on computer networks. Interactive multimedia must exhibit both of these characteristics: (1) user-controlled, nonlinear navigation using computer technology; and (2) the combination of two or more media (audio, text, graphics, images, animation, and video) that the user manipulates to control the order and/or nature of the presentation [60].

Recommendations are being forwarded by the ALA Committee on Cataloging : Description and Access (CC:DA) to the JSC for possible addition to *AACR2R*. One of the critical needs faced by catalogers in the early 1990s was a standard for description of works that were being issued on several separate physical carriers, which were meant to be used as one work. Because of the rapid advances in technology, however, which now allow interactive multimedia works to be produced on a single compact disc, these special guidelines may soon become moot.

The following is an example of selected descriptive cataloging fields for an interactive multimedia program, as described by the National Library of Medicine.

> 245 00 ‡a Human development interactive ‡h [interactive multimedia] / ‡cWm. C. Brown Communications, Inc.
>
> 246 1 ‡i Title on videodisc label: ‡a Human development
>
> 246 1 ‡i Title on disk label: ‡a Human development videodisc
>
> 300   ‡a 1 computer disk ; ‡c 3 1/2 in.
>
> 300   ‡a 2 videodiscs : ‡b sd., col. with b&w ; ‡c 12 in.

| 300 | ‡a 1 instructor's guide (v, 135 p.) |
| 500 | ‡a Title from videodisc title frame. |

As with other audiovisual and electronic materials, title added entries are given for all variations of titles. In this case the option has been selected to describe each of the different physical carriers in a separate 300 field. This example also includes a note giving the source of the title main entry, as required.

Archives and Rare Books

Health sciences catalogers may want to use a fuller level of description when cataloging archives or rare books. For these materials, instead of a level two description, a level three description may be chosen, to allow the cataloger to bring out special qualities or characteristics of the item in hand. It may be important to describe the particular copy for inventory or valuation purposes. In 1991, LC published the second edition of its guide, *Descriptive Cataloging of Rare Books* [61]. Catalogers who will be dealing with this material should have this guide, whose stated purpose is to

> ... provide instructions for cataloging printed books, pamphlets, and single-sheet publications whose rarity, value or interest make special description necessary or desirable.... They may be used in describing any book ... particularly those produced by hand or by methods continuing the tradition of the hand-produced book [62].

Special Considerations for Health Sciences Library Catalogers

The special considerations that are important to health sciences library catalogers are really the same as those for a cataloger in any type of library: the needs of their primary users, any special emphasis of the collection and the size of the library and its staff. The needs of the primary users will probably be the most important factor to consider, whether they are physicians, nurses and administrators in a hospital setting, researchers, clinical faculty and students in an academic setting, or administrators and researchers in a corporate library. Special consideration might need to be given to topics that are of particular interest to the library's primary users. In a corporate or an academic health sciences library, this might include creating additional added entries for chapter authors connected to the institution, adding tables of contents, or creating summaries which would add more detailed keyword access to material in an online public access catalog (OPAC). In the small hospital library, on the other hand, time devoted to cataloging may be short, and national-level catalog records might be accepted with no (or minimal) changes for that catalog, directly from the CIP information printed in the book.