

RESEARCH

A Practical
Guide to Finding

INFORMATION

Peter Fenner

Martha C. Armstrong



Research

A Practical Guide to Finding Information

**Peter Fenner
Martha C. Armstrong**

**William Kaufmann, Inc.
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To Don, whose encouragement and support made my dreams possible.

—MCA

To KTL, with PB, and three F's—TA, BA, AR—who render my dreams worthwhile.

—PF

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Preface

Research will help you find information—public or private, published or unpublished. By design it can be used either independently or in formal courses of study such as college-level basic skills classes. For best results, most readers should follow the sequence of chapters, completing all the exercises as they go. Students working independently will profit from the help of a knowledgeable critic (librarian, teacher, scientist, or other advisor) when the time comes to evaluate performance on the exercises.

The search strategies and techniques we have offered here are applicable to all fields of study, but our examples and references focus on the literature of science and technology where accumulated knowledge and data are so vital to continuing progress. Researchers in other fields may find it helpful to add relevant reference titles to the listings we've provided; appropriate catalog subdivisions might also be added to the endpapers.

Of all the people involved in the development of this book, perhaps the most helpful have been the hundreds of students who, since 1973, have answered questionnaires about earlier versions of *Research*. Their detailed and candid comments have been invaluable. Two former colleagues at Governors State University were also especially helpful. T. David Ainsworth, an instructional designer *par excellence*, kept asking the kinds of basic questions students would ask—often the important but elementary ones that neither of us wanted to think about—forcing us to assess critically our purpose and product. Richard Pollak, armed with expertise in computer-assisted instruction and learning theory, wisely dissuaded us from our early intention to depend on the computer, encouraging us simply to ask single questions, one at a time. Their efforts have made *Research* a much better tool than it would otherwise have been. Finally, the patience and forbearance of our families and friends have been essential during our years of progress on this project.

David Mike Hamilton and other members of the staff of William Kaufmann, Inc. have been of inestimable help as the work was transformed from final draft to finished book. Richard Burke's editorial incisiveness and copy-editing skills helped to fine-tune the manuscript; and we are all indebted to Sidney Harris, whose drawings here and elsewhere help readers to remember the worth of levity in weighty matters.

To all of you, our warmest thanks.

Peter Fenner
Martha C. Armstrong
Park Forest South



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INTRODUCTION

Research is for people who have previous skills in using a library and for those who don't. **This chapter will help you review or learn card catalog use.** Working your way through the tests that conclude this and the following chapter should tell you whether you are ready to skip ahead to Chapter Three.

To go beyond the scope of *Research*, first consult our sources; they are cited throughout this book. If they are unavailable in your library, ask your librarian about obtaining them through an inter-library loan.

Here are some titles; are they in the alphabetical sequence used in *your* library?

I met a man

Image of Africa

In case of fire

Indonesia

In the days of giants

The Inca

Indelicate hors d'oeuvres

The ants

Thanks, but no thanks!

Theatrical apparatus reviewed

Then: anthills!

There are likely fewer errors in that ordering than you might first suspect. In our library, two of these titles would be out of place. Before leaving this chapter, you should be able to arrange these titles according to the filing rules of the library where you will do most of your research. You should know your library's filing conventions for cards representing works in the stacks, in storage, or in special collections. You should also be acquainted with your library's special holdings and with the librarians' specialized subject-matter skills. Moreover, you should be able to find reference works at any desired level of generalization or specificity.

Should you want more information on the materials presented here, review the source documents we used in preparing this chapter:

Kirk, Jr., Thomas G., 1978, *Library research guide to biology*,
Ann Arbor, Pierian Press, pp. 8–12

Lasworth, E. J., 1972, *Reference sources in science and technology*, Metuchen, Scarecrow Press, pp. ix–xi, 1–2

Seely, Pauline, A., 1968, *A.L.A. rules for filing catalog cards*, 2nd ed., Chicago, 260 pp.

THE MAIN CARD CATALOG

Libraries sometimes have several card catalogs, all but one of them relatively small and specialized. Virtually all libraries use one *main* card catalog.

As you prepare to work with the main card catalog in your library, understand that it usually indexes only the general subjects of books, rarely their component parts. Also, while it does list authors, titles, and often the subject matter of books, and while it may list journal titles, the catalog does not provide access to individual periodical articles. And as the main catalog does not attempt to evaluate books listed, there is no substitute for actually studying a book for possible use.

The main card catalog, then, is a record of all the circulating and reference books and other materials in a library. Cards in the main catalog carry three kinds of headings: author, title, and subject headings. Main catalogs are often divided into two sections. Many libraries, however, have combined both the author-title and subject sections of the catalog into a single alphabetical sequence (a “dictionary catalog”—see below).

AUTHOR-TITLE CATALOG

This is the catalog you’ll use to find the call number of a book whose author or title you know. The author-heading card is the main entry. It is likely to contain more extensive information about the book in question than would the title- or subject-heading cards.

If the author’s name is not known, books may be located by looking up the title, which is typed above the author’s name at the top of the catalog card. Titles of books are usually listed, particularly if the author is anonymous. Some libraries do not list all the titles beginning with phrases such as *History of*, *Outline of*, *Report on*.

In a dictionary catalog, i.e., an undivided card catalog, all types of entries are interfiled: author, title, and subject cards are arranged in a single alphabet. The sequence of those entries, for an identical work, varies according to filing conventions adhered to in any particular library (see Figure 1).

Filing conventions given below suggest some of the rules to be aware of when you try to locate a card. They are typical for medium-sized to large libraries.

<p>LINCOLN, ABRAHAM, PRES. U.S., 1809-1865-- ICONOGRAPHY.</p>			
E			
457.92	Lincoln, Abraham, Pres. U. S., 1809-1865.		
1965	Lincoln; his words and his world (compiled) by the editors of Country beautiful magazine. Editorial direction: Michael P. Dineen. Edited by Robert L. Polley. (1st ed., Waukesha, Wis., Published by Country Beautiful Foundation for Hawthorn Books, New York (1965,		
	98 p. illus (part col.) facsim. (part col.) ports. (part col.)		
<p>Lincoln</p>			
E			
457.92	Lincoln, Abraham, Pres. U. S., 1809-1865.		
1965	Lincoln; his words and his world (compiled) by the editors of Country beautiful magazine. Editorial direction: Michael P. Dineen. Edited by Robert L. Polley. (1st ed., Waukesha, Wis., Published by Country Beautiful Foundation for Hawthorn Books, New York (1965,		
	98 p. illus (part col.) facsim. (part col.) ports. (part col.) 32 cm.		
E			
457.92	Lincoln, Abraham, Pres. U. S., 1809-1865.		
1965	Lincoln; his words and his world (compiled) by the editors of Country beautiful magazine. Editorial direction: Michael P. Dineen. Edited by Robert L. Polley. (1st ed., Waukesha, Wis., Published by Country Beautiful Foundation for Hawthorn Books, New York (1965,		
	98 p. illus (part col.) facsim. (part col.) ports. (part col.) 32 cm.		
	<p>1. Lincoln, Abraham, Pres. U. S., 1809-1865—Iconography. I. Polley, Robert L., ed. II. Country beautiful. III. Title.</p>		
	E457.92 1965	923.173	65—12399
	Library of Congress	(68ff)	

Figure 1. Here are author, title, and subject cards for one work. Between the first two would be filed cards for other works written by this Lincoln and by other Lincolns (with first names after Abraham. . .). Between the second and third cards would be cards for other works entitled Lincoln. Around the third card would be cards about other Lincoln-related subjects. Using the very latest Library of Congress filing rules, the second-shown card, above, would be filed first, because Lincoln stands alone.

FILING CONVENTIONS

The following outline will not necessarily explain all of the conventions used in your library; don't hesitate to ask your librarian to show you the filing rules used there.

1. In a two-section main card catalog, subjects (subject-added entries) are filed in one section. Authors and titles (main entry, and additional or later edition information placed above the main entry, e.g., author-added, title-added, and series-added entries) are interfiled in the other section.
2. The arrangement of the catalog cards in the author-title catalog is alphabetical (see the exceptions listed below, e.g., a chronological or numerical arrangement is used in certain cases for clarity). Punctuation marks are disregarded in filing. Examples:

New Republic
New York (City) Zoological Park
New York Ermines
New York Times
New Yorker Magazine
Newsweek

3. Filing is chronological in cases of:
 - a. Subject headings involving history and historical subdivisions. This includes historical periods, even if they have no date listed. For example, *U.S. History, American Revolution*, is filed:
 U.S.—History—1776
 Filing is in order of the first date given, with the earliest coming first. Periods that have the same beginning date are filed in order, with the longest period coming first. Thus:
 U.S.—History—1945—
 U.S.—History—1945—1960
 U.S.—History—1945—1947
 U.S.—History—1950—
 If alphabetical and historical headings and subheadings are present, the historical headings are filed first, then historical sub-headings, then alphabetical headings and alphabetical sub-headings, all under the same main heading.
 - b. Multiple editions of the same book or other materials are filed in order of number, with the first edition filed first.
 - c. Dated series are filed under the series title, in order of the

dates, and with the earliest dates first. When a date is used in a title, it is arranged according to the full spelling of the common pronunciation of the date: for 1984, read: *nineteen eighty-four*; for 101, read: *one hundred one*. However, when similar titles with different dates signify historical sequences, they are filed chronologically. Also, titles that are part of an apparent historical sequence involving different dates and locations (e.g., *Olympics: Lake Placid, 1980*) are arranged by the first part of the title; if the location appears before the date in such a title, the two are inverted for filing purposes:

Olympics: 1976, Innsbruck

Olympics: 1980, Lake Placid

4. Alphabetical filing is letter-by-letter. Library alphabetization considers a space between words as a letter that precedes an *a*, thus:

Free Song

Freedom

Apostrophes, quotation marks, and any modifications to letters are ignored, and a hyphen or dash is considered to be a space unless a prefix or suffix is involved. (See rules 13 and 16.)

5. Filing ignores:

- a. the initial articles *a*, *an*, *the*, and their equivalents in foreign languages, except when they are part of a proper name. Common foreign articles that are, thus, dropped from the filing sequence when they occur at the beginning of a title, include:

Das	Die	Eit	Gli	Las	s
De	Een	El	Het	Le	't
Dei	Eene	En	I	Les	Un
Den	Ei	Et	Il	Lo	Un'
Der	Ein	Ett	L'	Los	Una
Det	Eine	Gl'	La	'n	Une

- b. punctuation, except that personal surname entries are arranged before other entries beginning with the same word or combination of words. Examples of titles alphabetized:

Mr. W. Thomas

Mrs. Walter Thomas

Thomas' Storied Fortune

Walter Thomas

The Walter Thomas Story

6. Filing continues alphabetically even if the author or title entry is longer than a single line.
 - a. Cards having identical subjects are then arranged according to the second line or entry, using the same set of rules.
 - b. Under a given author's name, cards are filed alphabetically according to title, disregarding any second authors listed. If these titles are alphabetically similar, shorter ones precede longer ones. Authors with the same last name are arranged alphabetically by their first names. Authors are usually individuals, but may be companies, agencies, or other organizations, such as:
 - American Chemical Society
 - Massachusetts Institute of Technology
 - Society for Experimental Biology (Gt. Brt.)
 - U.S. Department of Commerce
 - U.S. Department of Health, Education, and Welfare
7. Single letters or initials are filed before a word beginning with the same letter, such as:

ABC of technology

A. B. Czerny lectures in geochemistry

Aaron, Robert

Initials, thus, are treated as one-letter words. These include initials representing names of organizations that are usually known by their initials. *International Business Machines*, for example, would be filed:

IBM

In these cases, one cross-reference card is filed under the full name and a second cross-reference card is filed under the initialized form.

The exception to this rule involves acronyms, which are abbreviations or initial letters of a group of words generally written and spoken as a single word, such as:

FORTRAN (for *FOR*mula in *TRAN*slation)

NATO (for *North Atlantic Treaty*
Organization)

UNESCO (for *United Nations Economic and*
Social Council)

Acronyms are filed as words, rather than initials; but they also receive cross-reference cards filed under the full name and under the one-letter-word rule for initials, as an aid to those not aware of the general filing rules.

8. Abbreviations appear on the cards as abbreviations, if so used on the original works, but they are, with one exception, filed as if the abbreviations were spelled out. For example:

Dr. is filed as if it were *Doctor*

Mr. is filed as if it were *Mister*

St. is filed as if it were *Saint*

U.S. is filed as if it were *United States*

USSR is filed as if it were *Union of Soviet*

Socialist Republics

The exception to this rule is the abbreviation *Mrs.*, which is filed as it is written.

When *Mrs.* and *Sir* are followed by another name, they are filed as though written in an inverted form, thus:

Smith, John

Smith, Mrs. John (i.e., as if it were *Smith, John Mrs.*)

Smith, John, pseud.

Smith, Sir John (i.e., as if it were *Smith, John Sir*)

Smith, Mrs.

Smith, Samuel

9. Titles and compound names follow single surnames.

Examples:

Smith, Zachary

Smith College Journal

Smith-Jones, Ivy

Smith of the Gazette

10. Elisions, contractions, and possessives are arranged as written, and as a single word. Missing words are not supplied.

11. Signs, symbols, and numbers, except those following rule 3, are arranged as if they were spelled out in the language of the entry:

XV is filed as *fifteen*, or *fifteenth*, depending on context;

410 is filed as *four hundred and ten*.

12. Words having more than one spelling are filed under the preferred spelling, and a cross-reference card may be filed under alternate spellings:

Color and *Colour*

Musical terms are filed under the singular spelling of the term:

concerto is filed as *Concerto*

concertos is filed under *Concerto*

concerti is filed under *Concerto*

13. Hyphenated words are arranged as separate words when the parts can stand alone as complete words. This does not include those prefixes that indicate the name of a country or people such as:
 Anglo-
 Franco-
 Greco-
14. Compound proper names of two or more words are arranged as separate words (even if they are hyphenated) excepting those involving prefixes such as:
 De La
 Del O'
 El Van
15. *M'*, *Mc*, and *Mac* in names are all treated as the prefix *Mac*, thus:
 McCabe
 MacDonald
 Machine
 M'Mahon
 McPeters
 Madness
16. Umlauts are filed as if spelled with the vowel followed by an *e*:
 ä is filed as *ae*
 ö is filed as *oe*
 ü is filed as *ue*
17. Author-added and main author entries are filed disregarding descriptive appellations such as:
 editor
 illustrator
 joint composer
18. Dates that follow the name of a person or organization and are descriptive, rather than indicative of historical placement or sequence, are filed together with those lacking such a description. (See Figure 2.)
19. Bible entries are arranged in this sequence:
 whole *Bible*
 New Testament, whole
 New Testament, individual books, alphabetically arranged
 Old Testament, whole
 Old Testament, individual books, alphabetically arranged
 Bible, as the first word of a title

Art Lib.

NK

1510 **Anderson, Donald M**

.A63 Elements of design. New York, Holt, Rinehart and
Winston, 1961.

218 p. illus. 22 x 27 cm.

Anderson, Donald L.

HF

5635

.145

Information analysis in management
accounting / [edited by] Donald L.
Anderson, Donald L. Raun. Santa
Barbara [Calif.] : Wiley, c1978.
706 p. : ill. ; 24 cm. (Wiley/
Hamilton series in accounting and

Anderson, Donald K., ed.

PR

2524

.C5

Ford, John, 1586-ca. 1640.

Perkin Warbeck. Edited by Donald K. Anderson, Jr.
Lincoln, University of Nebraska Press, 1965.

xx, 114 p. 22 cm. (Regents Renaissance drama series)

First published in 1634 under title: The chronicle historie of Per-

PP

2527

.A5

Anderson, Donald K. 1922-
John Ford, by Donald K. Anderson,
Jr. New York, Twayne Publishers
[1972]

160 p. 22 cm. (Twayne's English
authors series, TEAS 129)

Bibliography: p. 149-155.

DOCS.

IL

GA

3

.2:

W 53

Anderson, Donald B.
[The reality of widowhood / by Donald
B. Anderson]. [Springfield : State of
Illinois, House of Representatives,
1977]

10 p. ; 22 cm.

Title taken from back cover.

Bibliography: p. 10.

I. Widows. I. Illinois. General
Assembly. House of Representatives.
II. Title

IPfG 09 JUN 78 3902891 IAFant

Figure 2. This sequence of cards illustrates rule 18.