

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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SELECTED LIBRARY OF CONGRESS AND CORRESPONDING DEWEY DECIMAL SYSTEM NUMBERS

The listing that follows is quite general; it obviously could go into much greater detail—either for the Dewey Decimal System (Decimal) or for the Library of Congress (LC) System

<i>Subject</i>	<i>LC</i>	<i>Decimal</i>
General Works	A	000
Encyclopedias	AE	030
Periodicals	AP	050
Societies	AS	060
Yearbooks	AY	040
Philosophy	B	100
Logic	BC	160
Metaphysics	BD	110
Psychology	BF	150
Ethics	BJ	170
Religion	BL-BX	200
History—Auxiliary Science	C	900
Civilization	CB	901
Antiquities	CC	913
Archives	CD	025
Numismatics	CJ	737
Heraldry	CR	929
Genealogy	CS	929
Biography	CT	920
History—Outside America	D	900
British	DA	942
Austrian	DB	943.6
French	DC	944
German	DD	943
Classical	DE	913, 930
Greek	DF	938, 949.5
Italian	DG	937, 945
Russian	DK	947
Spanish	DP	946
Asian	DS	950
African	DT	960
Oceanian	DU	990
History—America	E	973
America—General	E	970
U.S.—General	E	973
U.S.—Local	F	974–979
Outside U.S.	F	980
Geography	G	910

<i>Subject</i>	<i>LC</i>	<i>Decimal</i>
Botany	QK	580
Gymnosperms	QK 494	585
Angiosperms	QK 495	583
Plant Anatomy	QK 641	581.4
Plant Physiology	QK 710	581.1
Plant Ecology	QK 901	581.5
Zoology	QL	590
Invertebrates	QL 362	592
Insects	QL 461	595.7
Chordates	QL 605	596
Fishes	QL 614	597
Reptiles	QL 640	567.9
Birds	QL 671	598
Mammals	QL 700	599
Animal Behavior	QL 750	591.51
Anatomy	QL 801	574.4
Embryology	QL 951	574.332
Human Anatomy	QM	611
Human Embryology	QM 601	574.33
Physiology	QP	612
Animal Biochemistry	QP 501	591.192
Experimental Pharmacology	QP 901	615.1
Microbiology	QR	576
Bacteria	QR 75	589.9
Immunology	QR 180	612.118
Virology	QR 355	576.64
Medicine	R	610
Agriculture	S	630
Forestry	SD	634.9
Animal Culture	SF	636
Fish Culture & Fisheries	SH	639.3
Soils	S	631.4
Technology	T	600
Engineering	TA	620
Metallurgy	TN	669
Chemical	TP	660
Photography	TR	770
Domestic Science	TX	640
Military Science	U	355
Naval Science	V	359
Bibliography	Z	010
Library Science	Z665	020
Manuscripts & Rare Books	Z	090

<i>Subject</i>	<i>LC</i>	<i>Decimal</i>
Physical Geography	GB	551
Oceanography	GC	551.46
Anthropology	GN	572
Folklore	GR	398
Manners & Customs	GT	390
Sports, Games, Recreation	GV	790
Social Sciences	H	300
Statistics	HA	310
Economics	HB–HJ	330
Labor	HD	331
Commerce	HF	380
Finance	HG	332
Sociology	HN–HX	300
Political Science	J	320, 350
United States	JK	353
Europe	JN	354
International Law	JX	341
Law	K	340
Education	L	370
History of Education	LA	370
Theory & Practice	LB	371
Universities (U.S.)	LD	378
Music	M	780
Fine Arts	N	700
Architecture	NA	720
Sculpture	NB	730
Graphic Arts	NC	740
Painting	ND	750
Language	P	400
French	PC	440
Spanish	PC	460
Italian	PC	450
English	PE	420
German	PC	460
Oriental	PC	700
Literature	PC	720
Classical	PC	730
Oriental	PC	740
General	PC	750
French	PE	400
Italian	PQ	440
Spanish	PQ	460
English	PR	450

continued on back end papers

Research

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.

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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.

LINCOLN, ABRAHAM, PRES. U.S., 1809-1865-- ICONOGRAPHY.			
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.)		

Lincoln			
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.)		

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.		
1. Lincoln, Abraham, Pres. U. S., 1809-1865—Iconography. I. Polley, Robert L., ed. II. Country beautiful. III. Title.			
E457.92	1965	923.173	65—12399
Library of Congress		[6877]	

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