An Introduction to Scholarship in Music

By Cornelia Yarbrough

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An Introduction To Scholarship in Music
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by Cornelia Yarbrough
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Introduction
As musicians we are constantly engaged in forming musical ideas and translating those musical ideas into musical behaviors. How we form our ideas, how we communicate them, and the effects of our communication upon listeners are areas from which questions arise to motivate and stimulate research. Research concerning these questions proceeds from various philosophical bases regarding the issues of how we know music and how we give meaning and value to it.

One purpose of this book is to introduce methods and materials of musical scholarship as it is practiced in the United States today. Music may occur in many forms, cultures, and situations. Likewise, it may be approached and subsequently examined through various modes of inquiry, both systematic and casual. Music may be studied in the presence of or in the absence of human interaction. In any case, the subject matter of music and the methodology of musical scholarship are inseparable.

Otto Kinkeldey has said, “In the widest sense musical scholarship may be fairly said to include any scholarly activity directed toward the investigation and understanding of the facts, the processes, the developments and the effects of the musical art.” Today’s music scholars must read and understand a variety of research methods. New disciplines for the musician, such as voice science, are demanding different and expanded research skills and understanding. Research degrees in music education and pedagogy are becoming increasingly popular.

A second purpose of this book is to introduce graduate music students to the diverse methodologies of research in music. Specifically, the objectives are to introduce basic research materials and aids, to present a procedure for gaining bibliographical control of a research topic, to discuss the most efficient and effective

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ways to use library facilities, and to lay a foundation for the understanding of historical, philosophical, ethnomusicological, qualitative, descriptive, experimental, and behavioral research methodologies or modes of inquiry. Above all, there is an emphasis on doing research.

Chapter 1, “The Art of Bibliographical Control,” explains the use of the library and other sources to gain bibliographical control and gives techniques for evaluating sources. Chapter 2, “Philosophical Foundations for Research in Music,” introduces the student to some major questions and techniques of philosophical inquiry: knowing music; exploring the meaning of music; and sources and development of values. Techniques for logically analyzing and arguing a musical premise are presented. Chapter 3, “Music Historiography,” presents the traditional techniques of discovering, editing, compiling, documenting, and annotating the music, composers, performers and musical artifacts of the past. In addition, issues of external and internal criticism of information are presented and techniques for doing research and writing in this mode of inquiry are explained. Chapter 4, “Ethnomusicology and Qualitative Research in Music,” introduces the student to current methods, tools, and techniques of ethnomusicology and qualitative research in music education. Chapter 5, “Describing Musical Events and Behavior,” presents techniques and tools for the systematic observation of musical events and behavior. Chapter 6, “Statistical Concepts,” introduces some very basic statistical concepts to enable the student to better understand quantitative research reports. Chapter 7, “The Logic of Experimental Design in Music Research,” analyzes the process of isolating cause and effect relationships in music and presents applications of statistical and behavioral designs.

At the end of each chapter, research applications are outlined to provide experiences in completing projects using the techniques of a particular mode of inquiry. Each chapter also has a bibliography for further reading. Appendices include annotated bibliographies, both general and music related, a comprehensive list of music and music related serials, and an outline of library classification systems.

This book has been in progress since 1986. It has been used in its various forms by graduate students, at both master’s and doctoral levels, and in all areas of music, that is, performance, theory, composition, musicology, music therapy, and music education. A number of people have made this book better. Anne Edwards, Patricia Flowers, Jan Herlinger, Clifford Madsen, Judy Marley, Harry Price, Carol Prickett, and hundreds of graduate students at Louisiana State University and A & M College in Baton Rouge, the University of Alabama at Tuscaloosa, Syracuse University, and the Ohio State University. Finally, I am thankful for the positive support and daily feedback of my colleagues at LSU: Jim Byo, Jane Cassidy, Katia Madsen, and Evelyn Orman. Their careful attention and candid remarks were and are appreciated.

Cornelia Yarbrough
July 2008
Chapter One

The Art of Bibliographical Control
Chapter One

The Art of Bibliographical Control

The history of music scholarship, as described in the introduction to this book, shows that research in music has expanded. Music scholarship now includes the study, analysis, and editing of music, the study of other musical artifacts, such as instruments, logical inquiries regarding how we know and value music as well as what music is and means, and systematic analysis and observation of music behavior.

No matter what mode of inquiry is selected to study a particular topic, the music scholar must begin with a complete, thorough knowledge and understanding of past treatments of that topic. Ignorance of past scholarship is a mistake, which leads ultimately to confusion and may result in delay of significant progress in research. Suffice it to say that every research project must begin with history.

Today, most of the fruits of music scholarship may be located in libraries, museums, or through historical societies. Most graduate students will need an excellent working knowledge not only of a research library but also of other avenues of locating materials and resources in order to begin any scholarly activity.

Traditionally, a research library has been an extensive storehouse of information classified for quick retrieval. As such it does three things: (1) it provides depth of information; it keeps many books on a subject, including all scholarly works; (2) it provides an historical view by keeping one copy of most works as a permanent record; and finally (3) it aims at comprehensiveness; it collects all forms of publication. In contrast, the branch library is restricted to collecting materials that can
circulate and selecting only a small reference and periodical section to meet the needs of the local community it serves.¹

Because of increasing costs and the availability of computer services, libraries are now moving away from the concept that the library acquires and stores material. Instead they are moving towards the concept of access to materials regardless of their physical location.

Although books are still the mainstays of most libraries, the “collection” represents a wide variety of print and non-print information. For the musician and researcher, non-print materials include the contents of audio archives, original manuscripts, and recordings. In addition to books which are housed in the main collection, musicians must not overlook collections of rare books, printed sheet music and collected works of various composers, serials (periodicals, for example), government documents, technical reports, maps, pictures, drawings, newspapers, and microforms (microfilm and microfiche).

The art of bibliographical control involves the observation and scrutiny of the evidences of history, both records and relics. Records are the intentional transmitters of facts. Relics are unpremeditated transmitters of facts.² Evidences of music history records include: chronicles, annals, biographies, genealogies, dictionaries, encyclopedias, histories, chronologies, catalogs of collections, memoirs, diaries, letters, original manuscripts, periodical publications and unpublished papers, dissertations, theses, ballads, anecdotes, tales sagas, phonograph and tape recordings, portraits, historical paintings, certain kinds of films, and kinescopes. Evidences of music history relics include: letters, literature, public documents, business records, certain kinds of inscriptions, language, customs, institutions, and musical instruments. Music scholars, regardless of the method of inquiry (i.e., historiography, ethnomusicology, quantitative, qualitative methods) selected, may be required to work with both of these categories of materials.

The subsequent development of an inventive bibliography might stimulate an organization of the results producing an original conclusion or explanation of some aspect of music history or musical behavior. This original conclusion or explanation must be the goal of serious research in music. Simply gathering information, formulating an outline, and rewriting what has already been said should not be considered significant research. Beginning researchers in music are encouraged to seek out heretofore unexplained musical events, phenomena, or artifacts and to contribute to our knowledge of music and music behavior through a creative research product.

**BIBLIOGRAPHICAL CONTROL: A DEFINITION**

The foundation for all research methodology is bibliographical control of the subject to be studied. To gain bibliographical control of a subject means to systematically develop a list of writings about it and to gather other evidences of history related to it. The result will be a bibliography, a formal list, of references and resources including information concerning authors, editions, publishers, dates of publication, page numbers, and so forth. In other words, a bibliography contains everything one might need to locate the reference or resource. The following steps are suggested as a process for gaining bibliographical control. It is important to note that returning to previous steps is a requirement as the search for all materials on a given topic unfolds. New keywords and the refinement of the topic for study will demand another visit to previously searched resources.

**Step 1. Select, define, and delimit a research topic or music artifact.**

A most important step occurs when one selects a topic or a music artifact for research. The topic or artifact should be of such great interest that it would continue to entertain and inspire throughout the sometimes tedious process of gaining bibliographical control, reading and taking notes, writing and word processing the paper, and, finally, proofreading the final draft prior to submission of the research project. Throughout the process of controlled inquiry, the development of bibliographical control and the selection and delimitation of a research topic or artifact should take place in tandem. The researcher should avoid premature closure concerning the final bibliography and the specificity of the approach. A goal at this stage of the controlled inquiry should be to open as many bibliographical doors as possible.

One may discover a musical artifact in the rare books collection of a library, the special collections section, or even in your grandparent’s attic. Once an artifact has been selected and before proceeding to **Step 2**, the researcher must complete an external criticism of the artifact. For guidance in this step, see Chapter 3 Music Historiography. The remainder of this section will describe the process to follow in developing a research topic.

Before the selection of a specific topic, it may be useful to select a broader area of interest. For example, “singing” may be the area of choice. To determine what aspect of singing one might finally decide upon, an exploratory analysis of it might be necessary. The purpose of this type of analysis is to use one’s own experiences to list and categorize all aspects of the area of interest. For example, an initial exploratory analysis of “singing” resulted in a list of categories including performance characteristics, vocal techniques, physiological aspects, and teaching
methods which included the terms, breathing, phonation, resonance, diction, range, tessitura, vocal pedagogy, voice, interpretation, intonation, posture, voice break, falsetto, chest voice, glottal attacks, passagio, bel canto, vibrato, and so forth. Now, one must decide whether to cover one, some, or all of the above characteristics.

For the purpose of providing an extended example of gaining bibliographical control, a tentative decision was made to search for all resources concerning “vocal pedagogy.” This term may be a narrower term for the subject, “singing,” or it may not be a term at all. Instead of approaching the subject directly, it may be necessary to approach the topic through separate aspects (breathing, resonance, phonation, diction) of vocal pedagogy. The topic, “vocal pedagogy,” may change, grow or diminish, and be refined as the research effort proceeds. However, the exploratory analysis procedure has opened up key words for gaining bibliographical control of the topic and has provided a limited review of the entire area of interest. Exploring a topic through brainstorming, skimming books and journals, talking with others, integrating interests and experiences, and finally choosing a topic from a larger area of interest are valuable approaches to beginning the search.

After one has brainstormed and categorized or organized this experiential information, other resources can be used to further explore and refine the area. General and subject encyclopedias, books concerning singing, subject handbooks, music dictionaries, and articles in periodicals provide information, which will explain and define this topic. In addition, these resources will identify the authorities and better known works on the subject.

**Step 2.** List keywords and subject headings you will use for your search. Use the *Library of Congress Subject Headings Guide*, the Permuterm section of the *Arts and Humanities Citation Index*, the *Music Index*, and your own creativity for this step.

The second step begins with identifying a general area for research, such as “vocal pedagogy.” In determining subject headings and key words for it, several sources are most helpful. The *Library of Congress Subject Headings (LCSH)* is an accumulation of headings established and applied by the Library of Congress since 1897. LCSH headings are valuable because they provide a hierarchy of terms, which are and are not related to the major term.

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In addition to identifying approved subject headings for use in manual and online catalogs, musicians and researchers may find that the LCSH volumes can be used for narrowing and focusing a topic. These volumes are a most valuable bibliographical tool, since knowledge of the subject headings used to catalog the library’s collection is often a prerequisite to locating all materials for a given topic.

There are a few overall points to remember about subject headings. Subject terms must be found that are acceptable to the library cataloging system. These terms may or may not be the terms the researcher is using. One way to find the right term is to use LCSH, the standard used by libraries in the United States. In addition, many other catalogs, indexes, bibliographies, and databases use essentially the same LCSH list of terms while others have their own thesaurus.

In using LCSH one must pay particular attention to the NT or Narrower Term cross-references, which lead to the most specific headings. Books are entered only under the most specific headings applicable to them and not also under larger generic headings. A second way to find the right subject headings is to use the tracings at the bottom of any catalog card or online record representing the relevant book. These notations will indicate the terms to be used to find similar books.

Examination of LCSH under the term, “Music,” showed the narrow term (NT), “Voice.” Looking under the term, “voice,” led to another narrow term (NT), “voice culture.” The term, “voice culture,” revealed the uniform terms (UT) “vocal culture,” “voice training” and “singing.” Therefore, in searching bibliographical sources in library catalogs, we might concentrate on the subject headings, “singing” and “vocal or voice culture.”

It is important to note first that the term, “vocal pedagogy,” was not listed in LCSH. This does not mean that we should discard it. On the contrary, this term, and others we will discover as we progress, will continue to be important keys to unlocking information about our topic. Secondly, we have not yet selected nor fully defined and delimited our specific research topic.

The importance of key words in the development of a working bibliography cannot be overstressed. As bibliographies are explored and as references are read, the number of key words will again expand and may even change dramatically. George Bragg, founder and former director of the Texas Boys Choir, related the following story regarding the importance of key words in his own research:

As an adult looking for histories of boy choirs and their origins, I came to realize that there were certain techniques, procedures, standards, phrases, and sounds that were inherited from past masters of boychoir choral art. Hence, it seemed what all of us, as boychoir sections of most libraries. The set is kept up-to-date by quarterly cumulative microfiche editions and an annual compilation in paper. These supplements reflect the constant updating of headings to conform to current cataloging practices.
directors, had to do to comprehend the full extent and depth of our art was to obtain an historical foundation and become practitioners of an historical art.

This historical connection and understanding were missing from many of the authors whose writings had been collected earlier. Thus, I began to search for material on this unique, nebulous subject. Without knowing the range and extent of the subject of boychoir, I began to look for any information, which might lead me to a more valid strata of historical source. I could find nothing which had been written in any country of Europe telling of a national history of boychoir. Not even England, one of the best chronicled and documented countries in the world, had a composite history.

In my pursuit, quite naturally, I turned to the Library of Congress in Washington, D. C. Surprisingly, under the category of “Boy Choir,” I found only thirty entries: four in Russian, three in Spanish, three in German, five in English (British), the rest were “how-to” books of American origin. I was disheartened, to say the least, for I had thought this “bibliotheca cornucopia” to be the most complete center on any subject in the world. So, finding the thirty volumes seemed to indicate my search was over.

However, at the end of the section there was a reference: “see Seises.” The word had no meaning to me, but since I was at the end of my known source, I dutifully followed directions, knowing that I had nothing to lose, and possibly something to gain. As luck and scholarship would have it, the word “seises” became the “key” which unlocked the historical “vault” telling of boychoir and civilization as it was affected by a long and noble lineage of boy singers.

“Seises” referred to the “sixes” in Spain, that number of trebles transported to the Court of Spain from Burgundy in Flanders to supply the upper voices for the Choir of the Royal Chapel. Additional words, just as obscure: “maitrise,” “Cambrai,” “seeckmester,” “chapel,” became keys that opened a 14th century door which, also, led toward the 20th century, as well as backward in time. The limited view, so far, has given me some insight into the practices in vocal performance, beyond the Romans, the Greeks, the Hebrews, all the way back to the Egyptians of the Middle Kingdom, c. 1500 B. C.⁴

The above account demonstrates the importance of identifying subject headings and key words for developing a working bibliography. If there is no subject heading for a selected area of interest, an unconventional method for developing

key words may be useful. The Arts & Humanities Citation Index contains a “Permuterm” Subject Index for each annual issue. This is an alphabetical list of all significant or key words from the titles of all journal articles covered by that issue. This used in tandem with the more conventional Music Index should enable the development of key words. However frustrating the search becomes, it should be remembered that enormous patience and persistence are needed to explore and re-explore as keywords change and grow.

Step 3. Find an overview article if possible. For example, the New Grove Dictionary of Music and Musicians might provide a good general overview for most topics.

The next step might be to see if someone has written an overview article or book that outlines the most important facts on the subject and provides a bibliography. This is precisely the purpose of an encyclopedia, such as The New Grove Dictionary of Music and Musicians. The article on “Singing” in The New Grove Music On-Line gives the history of singing and a brief treatment of theory and pedagogy. The article on “Voice” refers one to “Acoustics, Part VI.” Here, the treatment is more scientific and seemingly more in line with three subtopics of interest, breathing, resonance, and diction as outlined in our initial exploratory analysis.

Perusal of these overview articles increased the number of key words to be used in further developing bibliographical control. Now, in addition to those terms and headings listed above there are, for example, “formant,” and “register.” Second, there is a bibliography at the end of each of the articles.

Step 4. Rethink, redefine, and further delimit the topic.

After an exploratory analysis of the area of interest, a check of LCSH and a perusal of overview articles, it may now be possible to select, define and delimit a more specific research topic. The interest and creativity of the researcher should always govern the selection of a topic. The task of piecing together bits of

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5 Do not be misled by the term “dictionary.” In library and publishing terminology it refers simply to the alphabetical arrangement of articles without regard to their length, so it is often synonymous with “encyclopedia.”


knowledge into the typical “term paper” is not what advanced students should have as their goal. Instead, the ultimate goal for every scholar should be to contribute new knowledge.

Before continuing the search, it is wise to rethink the topic for more focus, and then to plan the search procedure so that one can proceed in as systematic a way as possible. The terms, “vocal pedagogy” and “voice science,” appeared to represent the most recent developments in the teaching of singing. The question, “How has research in singing influenced the teaching of it?” seemed to generate the most interest in the researcher. In addition, it seemed to be the most promising question to pursue in order to contribute new knowledge.

Having further specified the topic, the following limitations were developed before proceeding to the next step in the process of bibliographical control: (1) a substantial bibliography is the primary objective of the search; (2) the search is limited to the specific time span, 1975-2008, the period during which most modern scientific research in singing has been conducted; (3) due to time considerations and lack of a second language, the search is limited to references in the English language; and (4) the materials gathered are limited to the scientific methodology of teaching voice excluding vocal literature and the adolescent voice. With a firmer and more specific definition and delimitation of the research topic and with key words in hand, we were ready for the next step.

**Step 5.** Using the subject headings and keywords listed as a result of steps 1, 2, 3, and 4, conduct searches in prominent bibliographies of bibliographies such as Sheehy, Duckles and Reed and others cited in Appendices A and B of Yarbrough.

The first method for discovering all possible references and resources is to explore bibliographies of bibliographies. Bibliographies of bibliographies are references containing extensive lists of other references containing bibliographies. Many bibliographies of bibliographies were eliminated at the outset because they were limited...

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8 Given more time, the writer would include articles in French, Italian, and German, taking time for translations. Caution is recommended in this regard. Without consideration of foreign language sources, one might miss consequential information.

9 Appendices A and B are annotated bibliographies of bibliographies. References in Appendix A are general reference books selected from Sheehy’s *Guide to Reference Books*. Those in Appendix B are music reference books selected from Duckles and Reed, *Music Reference and Research Materials* and other music bibliographic resources.
Chapter One

retrospective in nature (published before 1975). Beginning with Sheehy’s *Guide to Reference Books* (1986) and Baylay’s supplement to the *Guide* covering the years 1975-1999 (see Appendix A), a search through current general bibliographies was initiated. Sheehy lists general and subject area references. There were several general and music bibliographies of bibliographies, which might prove helpful. The following paragraphs demonstrate the use of these references.

In search of current bibliographies, the *Bibliographic Index* was consulted using the terms, “singing” and “voice.” The *Bibliographic Index* is a cumulative bibliography of bibliographies contained in books, pamphlets, and periodicals. There were two bibliographies listed here that are contained in the books, *Training the Singing Voice* (1979; MT 820 F43) by Victor A. Fields (pp. 267-328) and *English, French, German, and Italian Techniques of Singing* (1977; MT 823 M55) by Richard Miller (pp. 216-237). Fields has compiled sixty-one pages of annotated listings of books and magazine articles on vocal methodology and pedagogy. These span the years 1928-1945 and so are retrospective in nature. Miller’s bibliography is less substantial (21 pages) and includes citations up to 1971. Since the search procedure established limited the time span to 1975-1999, these references may or may not be useful. Rather than discard these at this early stage, the decision was made to keep them for possible clarification of later materials and resources.

Two dissertations were discovered in later volumes of the *Bibliographic Index* which may prove invaluable: one by Owen Lloyd Duggan entitled, “A Research and Reference Guide for the Study of Vocal Pedagogy; Selected Works from 1967 to 1991” (University of Texas, Austin, 1992; UMI No. AAI9239198); and another by Karen Davis Bernard entitled, “A Bibliography of Current Research in Voice Science as Related to Singing and applied Vocal Pedagogy; A Doctoral Essay” (University of Miami, 1995, AAI9536852).

To continue the investigation of general reference materials listed in Sheehy, the *Cumulative Book Index* was inspected and found to be helpful in obtaining information concerning recent publication of books about singing, voice training, and pedagogy. The indices for 1980 and 1982 listed four books; those for 1983-1996 listed none. Finally, *Books in Print* was consulted using the subject guide and the terms, “singing,” and “voice.” Three current books were found here: *The Science of the Singing Voice* (1987; MT 821 S913) by Johan Sundberg; *The Science of Vocal Pedagogy* (1967) by Ralph D. Appelman; and *The New Voice Pedagogy* (1995) by Marilee David. Although Appelman’s book was published in 1967, it was decided to keep it in the developing bibliography for possible future clarification of terms and other ideas.

After completing the investigation of the general reference material, which might lead one to materials concerning vocal pedagogy, a search for specific music bibliographies was begun by consulting *Music Reference and Research Materials* by Duckles and Reed. Under the subject heading, “voice,” in the index, was one
listing: *A Dictionary of Vocal Terminology: An Analysis* by Cornelius L. Reid (NY: Joseph Patelson Music House, 1983). This listing includes a bibliography, which may be helpful. A search under other subject headings (vocal, voice, pedagogy, and singing) yielded no other sources.

**Step 6. Conduct searches of electronic databases such as RILM, The Music Index Online, and Dissertation Abstracts.**

Electronic databases require the use of Boolean Logic to formulate search queries while others offer it as an option for more detailed searching. In a Boolean search strategy, the operators (and, or, and not) are used to create a compound subject by combining topics. For example, a search query might request “Music and Therapy,” “Music Aptitude not Achievement,” or “Symphon? or Concerto Grosso.” The question mark in the expression, “Symphon?” will tell the system to retrieve all words beginning with the root “symphon,” for example, symphony, symphonic. The or operator is often used when an idea can be expressed by synonyms in order to broaden the search; an and links ideas to create a compound subject, limiting the search to those items which include both subjects; and not restricts the search. The best searches combine the operators. For example, consider the following logical search query: Music and Conductors not Electrical.10

Access to computer databases is now a common feature of most university libraries. Whether on a CD ROM system or via telecommunication lines to a distant database, the online searcher can locate a variety of materials in a wide range of disciplines. For the musician, RILM, the Music Index, and Dissertation Abstracts are familiar reference sources that, like hundreds of others, are now available for computer access either on-line or via CD-ROM. Because of the high cost of computer-based systems, many libraries may not have all these resources on-line.

RILM indexes research-based articles and dissertations including many that will be found also in the Music Index. The keyword, “vocal pedagogy,” yielded 75 articles and dissertations in English. The keyword, “voice science,” resulted in 17 entries.

The Music Index indexes several music periodicals that are important in the field of voice and vocal pedagogy. They include the Journal of Research in Singing and NATS Bulletin. Also, by looking under the subject heading, “singing,” the researcher found book review citations as well as articles. A book review of Profiles in Vocal Pedagogy by Whitlock and an article, “Checklist of Recent Research, No. 3: Vocal Pedagogy,” by T. M. Otto in the Journal of Research in Singing may

be useful. Searching under the keywords, “vocal pedagogy,” and “voice science,” resulted in 193 and 12 citations, respectively.

For this project in the influence of voice science on vocal pedagogy, we also searched *Dissertation Abstracts*. This search yielded 84 dissertations under the keyword, “vocal pedagogy,” and 10 under the keyword, “voice science.”

**Step 7. Search the World Wide Web for organizations, which might have information on your topic.**

For this search, many search engines, such as Google, Dogpile, Mamma, Excite, WebCrawler, and others are available. We chose to search through Google and entered the term, “vocal pedagogy.” This yielded over 73,000 hits containing sites in the .edu, .org, and .com domains. As expected, many of the entries cannot be used as they are listings of vocal pedagogy curricula at universities or advertisements. Other sites must be evaluated carefully for validity and reliability. Sorting through the high volume of information can be time consuming and, in many cases, disappointing in that the information gained is not valid.

Many music libraries in research universities have webliographies that are very helpful in regards to current information. The webliography for music resources at Louisiana State University contains links to many web resources that might be helpful in our search for information concerning vocal pedagogy and voice science.

**Step 8. First, search the electronic, standing, or published card catalogs in your own library; then, search the electronic catalog of the Library of Congress (www.loc.gov).**

The collection of a research library may be cataloged in four ways. First there may be a card catalog in which each card represents a separate publication. Cards are printed and sold by the Library of Congress to many libraries throughout the world. These or similar cards make up the catalogs of most libraries. Most cataloging systems contain bibliographic material (authors name, title, publisher, date), the number of prefatory and text pages, the height of the resource in centimeters (used to plan shelving of it), the LCSH headings to be used in the subject catalog, the Library of Congress call number, the Dewey classification number, and the serial number of that particular card.

A second way a collection may be cataloged is through a book catalog also called a union catalog. Here the entries are sometimes printed and other times the cards from the card catalog are photocopied. Book catalogs of the music collections of the New York Public Library, the Boston Public Library, and the Library of Congress are
available in most research libraries. These book catalogs may reside in a third form of cataloging, microform catalogs, which can be used with a microform viewer.

On-line computer catalogs are to a great extent replacing the three forms of catalogs mentioned above. It is often tempting to use the computer solely to complete the bibliographical control process. Caution is advised since the on-line catalog of a particular library may contain only those publications held by that library. Some also access other catalogs and databases. In addition, the library may be in a transition period during which they have been converting the card catalog to online. In this case, both on-line and card catalog searches are advisable.

First, note all the ways that the particular library can be searched on-line. Usually these will include searches by subject heading, keyword, call number, title, and author. Using the subject heading, “voice,” resulted in 3,856 citations, the subject heading, “singing,” gave 746, and that of “voice culture,” 123 resources. Secondly, using the keywords, “vocal pedagogy,” and “voice science,” yielded only about 20 citations. Finally, a call number search using the call numbers provided by the LCSH Guide and others discovered through other searches revealed that the call numbers MT 820, MT 821, and MT 845 contained the most resources for our topic.

Armed with what we learned in the above searches, we then searched the Library of Congress and found that the entries revealed duplicated those we found in our own library.

Step 9. With call numbers in hand, systematically browse the shelves.

The next searching strategy is systematic browsing. The practice of shelving books in a classified arrangement so that books on the same subject are placed next to each other in convenient groups predates the invention of the card catalog. Thus, the card catalog and the shelf arrangement scheme are complementary. The card catalog and now the online catalog correct the weaknesses of the classified stacks by providing multiple points of access to works that can have only one position in the classes and by grouping under one subject heading works that are scattered among many classes. The shelf-browsing system in turn corrects the defects of the catalogs “by providing in-depth access to full texts, free of the constraints and filters of an artificial vocabulary

Thomas Mann, A Guide to Library Research Methods (New York: Oxford University Press, 1987), 27. The development of classification schemes such as the Library of Congress and Dewey Decimal systems were devised in the early twentieth century. Few libraries had card catalogs then; so much effort went into the creation of precise categories and subcategories to reveal subtle relationships among subjects.
of subject headings arranged alphabetically rather than logically.” For our topic, the
effect of voice science on vocal pedagogy, we might use call numbers for all books
and periodicals located in our search for bibliographies to locate other sources of
bibliography on the shelves. In the Dewey Decimal system, the call number 784 is
used for “voice and vocal music;” in the Library of Congress system, MT 820-949 are
the classification numbers for “singing and voice culture” (see Appendix D for keys
to library classification systems). The call numbers most appropriate for our search
are MT 820, MT 821, and MT 845.

Step 10. Read and take notes using a self-developed system of
bibliographic and note files while at the same time
evaluating your sources.

Having completed the initial process of bibliographical control, the task of find-
ing the reference and resource materials that have come to light, reading, taking
notes, preliminary writing, and constructing the final paper should begin. This
task is one of artful craftsmanship. It is artful in the sense that creative construc-
tion and organization of the materials should take place. However, craftsmanship,
which demands the re-searching through bibliographical resources for additional
supportive materials and for items, which insure thorough coverage, must also be
present.

The process of reading and taking notes may be simplified and made more
efficient by preparing large index cards, one containing the bibliographical and
footnote citations in their correct forms according to the style manual chosen; and
a set of cards containing notes with page numbers. The bibliography, footnote,
and note cards should be keyed with a number for each set, for example, for the
first reference examined, the bibliography and footnote card, and all note cards
would be keyed by placing the number “1” in the upper right corner of the card.
This procedure enables the researcher to shuffle note cards into a variety of orders
without losing sight of the source of the material. In addition, the final typing
or processing of the paper is made easier by the ability to use the key numbers
with pages for footnotes (which already appear in the correct format), the ability to
alphabetically arrange bibliography cards, and the ability to order note cards either
topically, chronologically, or however the researcher chooses. Now with cards in
hand, we begin the process of establishing a bibliography for the topic we have
chosen.

First, a return to those bibliographical sources where citations were found which
were thought to be valuable. Create a numbered bibliography card for each source.
On the same card, create a footnote entry for that reference. Once all bibliographical

12Mann, 31.
cards have been completed and numbered, the sources must be located either in the library or through interlibrary loan.

One of the most important aspects of the research process is evaluating the quality of the sources in order to determine which provide reliable and useful information and which do not. The following questions should be asked as each source is examined:

1. Is this a primary or a secondary source? A primary source is the first or original source; a secondary source is another account derived from primary sources. The important question is how many intervening and interpretive sources there are between the researcher and the original observation or data. Each interpretation, even if objective and accurate, shapes the information through the analysis of the writer. Also, each intervening source represents a possibility for error or misinterpretation.

2. What are the author’s or editor’s qualifications? Is the author an expert in the subject matter or knowledgeable in the field? Check the title page and the preliminary pages to find out the author’s credentials, by noting the author’s degrees, experience, and the academic or other positions held. Also, look in biographical dictionaries and other reference books that give information about authors. Begin with the Biography and Genealogy Master Index which will indicate which sources such as Who’s Who in America, Who’s Who in American Women, and International Who’s Who in Music contain biographical information. In addition to the author or editor, notice the name of the publisher, which may suggest expected standards. Many firms are associated with particular subjects, or certain types of books.

3. How current is the information? Check the copyright date. Some subjects change quickly and up-to-date information is needed. Other subjects may be covered adequately in earlier materials. Often the most current information on a particular topic is in periodicals.

4. What are the scope and treatment of the information? Examine the table of contents to get an overview of the subjects covered. Read the preface and introduction to determine the author’s purpose, the intended audience, the scope of the work, and the author’s treatment of the subject. Does the book or article attempt to cover more than is possible in a work of that size? Is the work written for a general reader, or the specialist in the field? Is the content of the book complete or partial, exhaustive or condensed? Can the work be associated with any school of thought or serve as a vehicle for a philosophical or ideological viewpoint? Is there any indication of bias in the treatment of material, and, if so, does it distract from the usefulness of the source? Is other material needed to give opposing ideas?
5. What is the format of the book? Are there illustrations, graphs, or drawings, if needed? Does the book provide bibliographies, reading lists, and footnotes? Is there an index to give easy access to specific information? Are other features provided which amplify the material, such as appendices or a glossary of terms? Does the source lack features that would be useful?

6. How was the book reviewed? Book reviews can be found in professional journals, Book Review Digest, Book Review Index, and Choice.

Advice commonly given to young researchers bears repeating. Simply because a book or article exists in print does not mean that it is accurate and reliable, nor does it mean that it is well suited for a particular purpose. The ability to evaluate each source is essential for academic and scholarly integrity.

Before reading a book, give it an inspectional reading. Read the title, subtitle, table of contents, the preface or introduction by the author, and the index. Secondly, determine what kind of book it is.

Step 11. Do a citation search in the Arts and Humanities Citation Index.

Another method of locating materials is citation searching. Three unconventional indexes are used for this task. These are the Science Citation Index (1955 - ), the Social Sciences Citation Index (1966 - ), and the Arts & Humanities Citation Index (1975 - ). Each issue of these indexes contains a "Permuterm" Subject index, a Source index, and a Citation index. The first of these is an alphabetical list of all significant or key words from the titles of all journal articles covered by that issue. Collectively, these three indexes cover thousands of journals in all fields for use on any subject of interest.

In citation searching, one must begin with a known source - a book, journal article, conference paper, dissertation, or technical report. It can be any kind of knowledge record, published last year or centuries ago. A citation search will indicate whether someone has written a subsequent journal article, which cites that source in a footnote. It is often the case that a later work, which cites an earlier one, is probably talking about the same subject. Once the first tier of articles that cites the original source has been found, then articles that cited the first tier can be found, thus creating a second tier. Then citations for the second tier can be found, and so on, until a large amount of bibliographical information has been collected.

Because one must begin with a known source, citation searching should be done late in the search process after a significant amount of information has been gathered. This method is seldom used, but it is an excellent tool for locating well-hidden source materials.
Step 12. After completing the above steps, interview an expert on the topic.

The final search strategy, talking to people, is somewhat controversial. However, this writer agrees with Mann when he writes:

Genuine learning should obviously be a broadening rather than a limiting experience; and in doing research the most important lesson to learn is that any source is fair game. One should always go to wherever the information needed is most likely to be, and very often this will be in someone's head rather than in a book. (Remember, too, though, that you can travel 'full circle' from talking to an expert to get back into the literature - for usually the expert will know the best written sources, and can thereby offer valuable shortcuts that will make library research much more efficient.)\textsuperscript{13}

The Directory of Music Faculties in Colleges and Universities has an index which identifies each faculty member's expertise by a numerical code, for example, 32 is “Voice Instruction.” Most beginning researchers are intimidated by the prospect of talking to an expert in the field or calling someone on the telephone to interview them. The fact is that most interviewees are flattered that they are considered knowledgeable in some area and will most often respond helpfully. Finding these experts is sometimes difficult. Other than faculty of local universities, experts may be found in several directories. The Directory of Directories describes approximately 10,000 sources in sixteen broad subject categories such as “Fine Arts Marketplace,” “International Directory of Published Market Research,” “National Directory for the Performing Arts/Educational,” “Information Market Place,” and “Toll Free Digest: A Directory of Toll Free Telephone Numbers.” Another helpful directory is the Writer’s Resource Guide, edited by Bernardine Clark. This is a directory of sources (with telephone numbers) for authors who need facts in any field. Other experts are, of course, the authors of books or articles that have been read on the subject of interest.

One should begin the process by doing considerable background reading to prepare for the interview. Second, explain the purpose of the project and how the information will be used (a research paper, publication, broadcast, program notes, etc.). Third, ask specific questions. Fourth, respect the expert's intellectual property rights. Give credit to the expert in a footnote and in the bibliography. Fifth, ask for additional contacts to obtain more than one spoken viewpoint. Finally, after talking to someone who has been helpful, write a thank-you note.

\textsuperscript{13}M ann, 120.
BIBLIOGRAPHICAL AND FOOTNOTE CITATION FORMATS

A bibliography contains a citation for every work consulted whether cited or not. A reference list contains only those works cited in the paper. There are two kinds of notes, reference and content. As such they have four main uses: (1) to cite the authority for statements in text - specific facts or opinions as well as exact quotations; (2) to make cross-references; (3) to make incidental comments upon, to amplify, or to qualify textual discussion - in short, to provide a place for material which the writer deems worthwhile but which would in the writer's judgment interrupt the flow of thought if introduced into the text; and (4) to make acknowledgments.

Note that in a footnote the superscripted number of the footnote, the author's first name followed by his last, the indentation of the first line, and the use of commas. If the word processing software will not superscript footnote numbers, new software must be purchased. Footnote numbers should not be written in by the author. Number footnotes consecutively throughout the paper.

Note that in a bibliography, the family name of the author is followed by the and subsequent lines.

Journals contain a page detailing instructions to contributors that must be followed. It should be noted that the publisher decides what style the author should follow.

SUMMARY

At this point in time the research process will have three aspects. First, the process of opening up a bibliography will continue and expand. Second, the process of writing bibliography cards and locating the materials in the library or through inter-library loan will continue. Third, as materials are located the researcher will read them, take notes, and begin writing.

Thus, the research process may be outlined as a twelve-step procedure:

1. Selection, definition, and delimitation of a research topic through exploratory analysis;
2. Listing of keywords and subject headings for the topic;
3. Finding and reading an overview article;
4. Rethinking, redefining, and further delimiting the research topic;
5. Using subject headings and keywords to search general and music bibliographies of bibliographies;
6. Conducting searches of electronic databases;
7. Searching the World Wide Web;
8. Searching the card catalogs of your own and other research libraries;
9. Browsing the shelves with call numbers in hand;
10. Reading, examining and evaluating resources while taking notes;
11. Completing a citation search procedure; and
12. Interviewing an expert in the field.

Remember that the process of research is an undulating one. That is, after selection of an area of interest, one may proceed to step two, the exploratory analysis. This step may require a return to step one in order to state more clearly the research topic. Likewise, step four (the formulation of research questions), may require a return to step three, step two and, subsequently, step one. The process, therefore, is one of constant redefinition and refinement. The patience and care with which this process is undertaken will determine the beauty of scholarship demonstrated in the final product.

There is no one magic formula for producing that research which will significantly influence the study of music for generations to come. History is fluid, ever changing. Only time gives us the perspective to evaluate our efforts and to select those musical events, products, and people, which are those true creative milestones.
RESEARCH APPLICATIONS

1. Select two reference books from each category in Appendices A and B. Review each reference and make notes regarding how this source might be useful to you in the future.

2. Select a topic of interest and write a brief description of how one might gain bibliographical control of that topic by following the twelve steps listed and explained in this chapter.

3. Submit a typed or word processed bibliography in Turabian style on a topic of choice. The bibliography must reflect an approach to the topic through a variety of sources, e.g., collections, encyclopedias, dictionaries, catalogs, discographies, histories, biographies, periodicals. It must also demonstrate facility in using all facets of the library including (where appropriate) audio archives, university archives, computer searches, inter-library loan, microfilm, and so forth.
BIBLIOGRAPHY


