Term Paper Prospectus
And
Bibliographic Assignment
History 11

The term paper for this course will present a historical discussion of one aspect of science (perhaps as it relates to either religion or myth) at a specific time and place prior to the year 1720. (A discussion of these topics in a modern "primitive" culture will also be acceptable.) Some people will tell you that you should begin a paper when you have something that you want to say. In this course, we begin with a question that we want to answer; we won't have an answer until we've finished our research. Sometimes that answer may not be quite what we expected; those surprises are one of the things that make research fun.

Our first steps are to define the question we propose to resolve in our paper and find whether there is enough material in scholarly books and articles to provide reliable evidence to answer that question. What is a good question? Generally it is not a question of the form "what did so and so do?" or "what was his influence?" More interesting is "How did our subject's scientific work relate to his religious thought? ... to the work of his contemporaries? ... to religious institutions?" or "Why did he come to hold the positions he held?" A good question makes you get at a person's motives and interactions rather than provide a dull unmotivated chronicle of his life and discoveries. Notice that our question will not be cast in stone; we may have to change it as we learn the limitations and opportunities of the sources we find in the library.

Hence we start by doing some bibliographic research and writing a prospectus. Notice that I said scholarly books and articles; these are not the kind of thing we find in popular books or general circulation magazines. Scholarly books are generally narrowly focused on specific topics and tend to be published by university presses or "quality" commercial publishers. Scholarly articles are not found in general circulation magazines such as Time, Newsweek, or Discover; instead they are in specialized journals that few people have ever heard of. We find two things in all scholarly publications: 1) The name(s) of the author(s) appears on the article or book and 2) the book or article includes notes documenting the sources of specific information in the text. If it doesn't have these, it isn't scholarly, although not everything that has them is really scholarly. This isn't just snobbery; putting our name on what we write and documenting the sources of our information are the ways academics hold each other responsible for what we say.

You can find many of these scholarly journals and books at the WVU libraries. To find whether we have enough to write our proposed term paper, we make a list of what is available in the library and where it is. This list should contain enough information about the books and articles on our topic so that we can find them when we need them without going back to the places where we found the information the first time. To help us deal with this problem, standard bibliographic forms have been developed that enable us, and the readers of our paper, to find any book or article we need. The following bibliographic forms ARE REQUIRED for all assignments in this course:
BOOKS:

ARTICLES:

The information for books is pretty self-explanatory; the author, title, and publication information are in most bibliographies. The only unusual items are the library call number (if available) and the name(s) of the source(s) where we found the item. For articles some things may not be so obvious; the name of the journal is followed by the volume number, the year (in parentheses) and the pages of the article.

Sometimes our source will not give all the publication data for a book or might only give the starting page for an article; in a preliminary bibliography like this one we don't need to run down that information elsewhere. If we decide to use an item for our paper, we can fill in the missing information when we read the book or article.

The following specific steps are intended to help find material that might be useful for our paper. Obviously, we can't start gathering information until we have proposed to ourselves a fairly well-defined historical topic that we want to study. If the topic is poorly defined, we will find a lot of books and articles, but most of them won't really help us and won't be worth the effort it takes to write them down. At this early stage we have to have an idea of what we're looking for; maybe we'll change our minds later, but for now at least, we have to pick a preliminary historical period and topic that we want to study. Only then can we find what sources are available and the specific questions for which they provide evidence.

We don't want to use general bibliographies, such as *Wilson Search* or the *Reader's Guide to Periodical Literature*, since they have more material from popular magazines than from serious scholarly journals. There are other more specialized bibliographies and more powerful search engines that will help us find our way through the scholarly literature.

REQUIREMENTS

You must use all five bibliographic sources mentioned below for this assignment. The preliminary bibliography you get should have at least twenty items from the topic, about four or five from each of the five sources. Since we will find the same items repeated in the later phases of the search -- and some areas may turn up nothing -- it's best to note as many as possible at the beginning. -- a bibliography consisting only of books found in the library catalogue is not adequate preparation for a term paper. For balance your bibliography should be about evenly divided between books and scholarly articles and should certainly include some recent research published within the last ten years. Using this step-by-step guide, it shouldn't be too hard to prepare a preliminary (twenty item) bibliography for our topic. By the way, Don't Panic®; I don't expect you to use all twenty sources in your paper.
Searching for twenty sources tells you two things. If you can't find that many, it's very likely that you've picked a topic that is not manageable; you may have to redefine your topic or pick a totally new one. If you can find twenty sources, the extra sources will give you leeway to pick the good ones that will help with your paper.

GOOD HUNTING!

Bibliographic Research Assignment:

1. Examine articles in the *Dictionary of Scientific Biography* (DSB) in the Physical Science, Health Sciences, or Evansdale Libraries to find bibliographical information on your subject. You do not want to just find out if there is an article about a person or topic; you want to look at the article to find the bibliographic sources cited there so you can use them in your research. Be sure to look up your subject in the index in Volume 16 to find other articles in the DSB where he, she, or it is treated. If you plan to focus on a topic, rather than a person, use the index to connect your topic to persons important in your study and look for bibliographic information there. The names of these persons will also be helpful in later stages of your research. (If you draw a total blank in the DSB, you might want to connect a few of the other encyclopedic works that cover more particular areas in the history of science on the attached list -- *Do not use* general encyclopedias like the *Encyclopaedia Britannica*).

2. Look up the person and/or topic in the personal and/or subject sections of the *Isis Cumulative Bibliography* (Cum. Bib.) in the Wise Library Reference Room.

3. Look in the most recent four years of the Current Bibliography (Cur. Bib.) which is also in the Wise Library Reference Room. The index of persons and institutions in the back of the bibliography will save much work if you have already identified significant persons in your area of interest.

4. Use the MountainLynx Web-based Library Catalog to find new books that you haven't found so far. The Catalog contains several different sections which have their own advantages. The Keyword section ranks all the items it finds by relevance, but it isn't very precise. I find an entry like *+astronom? +history* to be helpful. The question mark at the end of *astronom?* indicates that words like astronomy or astronomer will both count. The + before each word requires that both of these words appear, which eliminates books on modern astronomy or military history.

   I find the subject search to be clumsy; it only works well if you know the proper library subject heading. The keyword searches are much more forgiving if you don't know the proper headings.

   The guided keyword search is handy is more forgiving, you can look for words that appear anywhere in the subject or author title section. If you're interested in books about American Indian astronomy, you can look for the terms *Indian? and astronom?* as subject keywords,
which will turn up the result whether it's catalogued as Indians of Peru, Astronomy or Indian Astronomy, North America.

Finally, advanced keyword allows powerful Boolean searches (using AND, OR, or NOT). I've found searches like (astronom? OR astrolog?) AND (medieval OR renaissance) to dredge up a lot of material on widely different, but relevant topics..

4. Use the online Arts & Humanities Search to identify recent articles that cite books and articles which you have already identified as being central to your topic. You can use A&H Search at the library or access it through the WVU Library's web page, although if you want to use it from off campus you have to get a password at the library reference desk.

Arts & Humanities Search is an extremely powerful citation index, but takes practice before you get the hang of it. Citation Indexes use footnotes to generate lists of all articles that cite a particular author. Once you've reached A&H Search, go to the Advanced Search option. Then you enter the name of the author of a book or article you have found to be important from your work so far. Let's suppose you're writing on medieval optics and have found that David C. Lindberg wrote a lot on that topic.

This step is a bit tricky. The author must be entered in the form "Lindberg DC", that is, the last name, a space (no comma), and one or two initials with no spaces between them. On the right hand column you must choose the index you want to search; the index we want here is "Cited Author (exact phrase)." This search will turn up every article in the system that cites anything written by D. C. Lindberg (the last time I tried this it turned up 293 articles). You will then have to browse through the titles to find which are relevant to your topic, and then check to see whether our library has them.

If you turn up too much material, the Advanced Search page allows you to require some combination of entries; one trick is to require two different cited authors, another is to require both a cited author and a subject keyword. Good searching requires you to be creative and use your imagination.

5. Use the MountainLynx Computerized Library Catalog or the on-line Union List of Serials to get call numbers for all books and articles you have found in the previous five steps. Make an explicit note if a book or article is not in the library (be sure to check that we have the specific volume of the periodical in which an article appears).

You can then type up a working bibliography, alphabetized by author(s), showing the 20 books and articles you are considering for your term paper.

**Prospectus:** Prepare a brief statement (100-200 words) proposing a specific historical question about this scientist or topic that the material you have found will enable you to answer. Remember that a good historical question should not ask what happened but should try to get at the reasons why something happened. Note that since you have only begun your investigation at this point, your prospectus cannot say what you intend to prove. Historians must keep an open mind in their investigation until all the evidence is in. In your prospectus
note at least five of the books and articles from your bibliography that are in the library and tell why you think they will help you answer your question.

**Encyclopedic Works in the History of Science**

*Encyclopaedia of the History of Science, Technology, and Medicine in Non-western Cultures / editor, Helaine Selin.*

*Sciences of the Earth: an Encyclopedia of Events, People, and Phenomena / edited by Gregory A. Good.*
QE11 .S38 1998  Physical Sciences Library, Reference (non-circulating)


QB15 .H624 1997  Physical Sciences Library, Reference (non-circulating)

*Instruments of Science: an Historical Encyclopedia / editors, Robert Bud, Deborah Jean Warner ; associate editor, Stephen Johnston ; managing editor, Betsy Bahr Peterson ; picture editor, Simon Chaplin.*
Q184.5 .I57 1998  Physical Sciences Library, Reference (non-circulating)

Q141 .D5  Evansdale Library, Reference (non-circulating)
Q141 .D5  Physical Sciences Library, Reference (non-circulating)
Oversize Q141 .D5  Health Sciences Library, Reference (non-circulating)