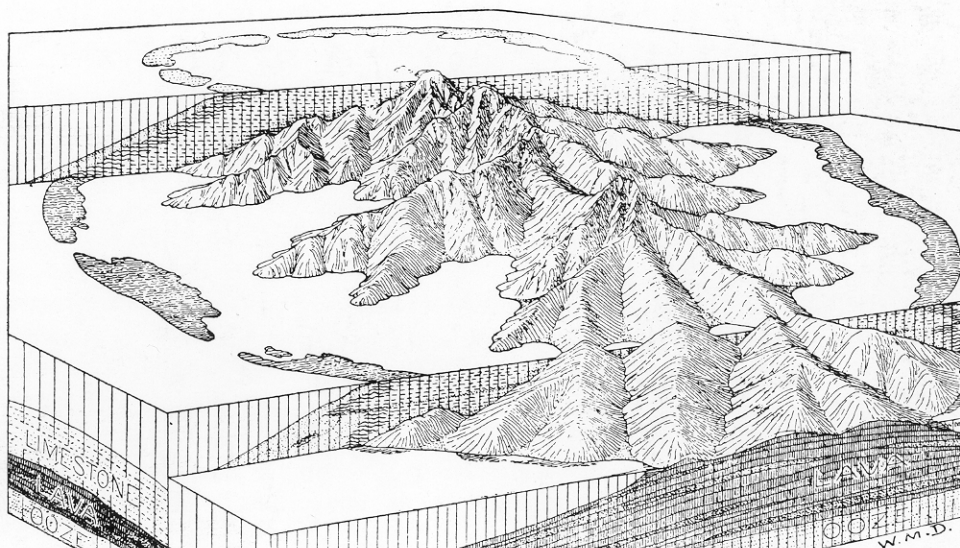
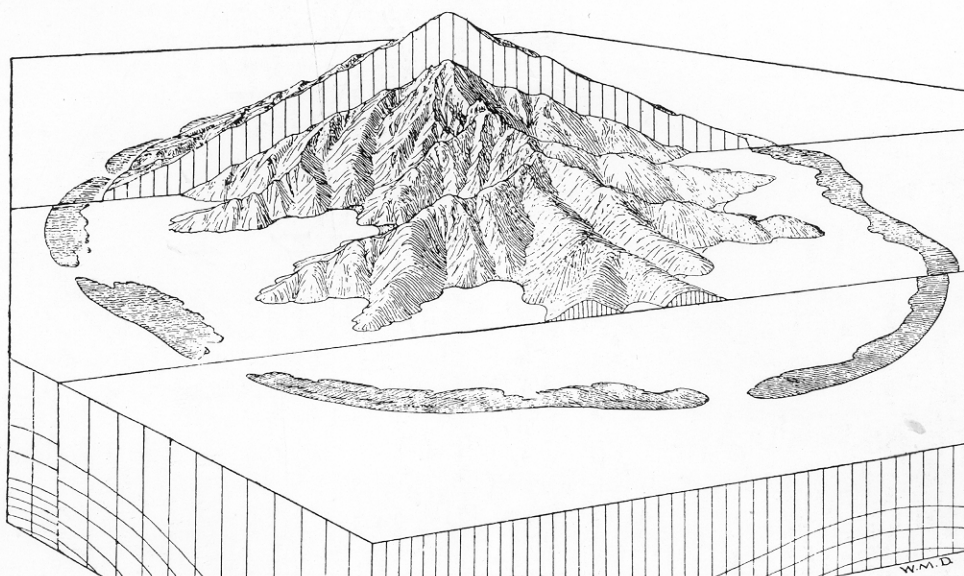


EARTH SCIENCES HISTORY

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EDITORIAL

SIGNING ON—WITH A VOTE OF THANKS

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On January 1, 1994 I assumed responsibility for editing *EARTH SCIENCES HISTORY*, succeeding Prof. Gerald Friedman, who has edited the journal since its foundation in 1982. In recognition of Prof. Friedman's strenuous efforts to promote the study of the history of the earth sciences through this journal, his name will remain permanently at the top of the copyright page as "Founding Editor". Prof. Friedman has consented to remain on the board of advisory editors, and will also continue to produce his column "Interesting Publications". We all owe Gerry Friedman and his wife Sue Friedman a tremendous vote of thanks for their stewardship and service over so many years—and for their contributions of time, money, and energy to the promotion of the world's only journal devoted exclusively to the history of the earth sciences.

We also owe a great vote of thanks to Kennard Bork, stepping down as Secretary of the Society, and to Thomas Pickett, remaining on as the Society's Treasurer. These scientist-historians have given years of selfless service to the Society and the journal. They have watched its finances closely and managed its affairs with distinction. They have served without salary or benefit, as a matter of intellectual and professional commitment. The Society is deeply and permanently indebted to them, as to Prof. Friedman, for the journal's continued survival.

IN THE NEAR TERM

Prof. Friedman left me a backlog of sixteen accepted but unpublished papers, and a number of papers in revision. I will honor the commitments made by Prof. Friedman in the journal's name to publish all the papers already accepted; I will see those papers I inherited "in revision" through to final editorial decision. To the extent possible, I will publish papers already accepted in the order they arrived in the editorial offices with final revisions. I estimate that all of Vol. 13 (1994) and part of Vol. 14 (1995) will be taken up by papers already in hand. This is to say that my own editorial stamp and preferences will probably not become fully evident until Vol. 14, No. 2, in the late autumn of 1995.

A PLEDGE OF CONTINUITY

EARTH SCIENCES HISTORY will continue to encourage and accept papers from both working scientists with historical interests, and from professional historians of science. All submissions will continue to see editorial

review by two referees. I have made the commitment that during my editorship I will see any submitted manuscript through as many cycles of revision as are necessary to bring it up to a publishable standard—by which I mean the critical standard appropriate for a peer-reviewed journal of first resort with a professional readership. This will require a large commitment of effort on my part, and in some cases will require considerable effort on the part of the authors, especially those with a good story to tell but little experience in writing history, or those with ample historical training but little technical expertise in an earth science. I will stay with any author as long as she or he will stay with me, but the standard of the journal will be uniform and high, and all work to be published must attain that standard.

FIVE STEPS TO WRITING GOOD "EARTH SCIENCES HISTORY"

The following advice to prospective authors and contributors is based on my twenty years of experience as a historian of science, writing for a mixed audience of scientists and historians—very like the audience of this journal. Much of my work as an editor consists in transmitting this advice to authors, one at a time. Because I believe it to be essential to good historical work, I offer it here as a sort of editorial credo.

1. Turn Your Topic into A Problem

Scientists tend to write in their scientific work about problems, and about solutions to them. When they get to writing history, they (and many professional historians) often just write about topics. But good historical work is also about problems, and the history of science, from its long association with scientific work, is strongly attuned to the principle that a good piece of work both states and solves a problem. In order to accomplish this you must first

2. Make the Context of Your Work Explicit

If this subject/person/idea you are writing about is "the answer", what is "the question"? Most scientific work is addressed to colleagues so close on the research front that there is no need to state the question. This is not true for historical work. In historical work the explicit statement of the context into which a work fits is considered to be the author's prime responsibility. In a slightly different sense it is also often the main object of research—attempting to find out from ex-

amining a work of past science the question(s) its author was trying to answer. That such questions are often far from obvious, and often far different from those asked in more recent science, is one of the most important things we learn from the study of the history of science. You, as the author, must tell the audience, at the outset of the piece, what they will know once they have read what you have written. The best way to approach this in your research and writing is to

3. Remember to Write What "Goes Without Saying"

The most fragile parts of scientific life and the first to be lost historically are those things that are so obvious to all members of a scientific community that they "go without saying". Because they go without saying they are never said (or written). When no one says them, then no one hears them. The result? It is possible for a concept or shared understanding to move directly from the status "everyone knows" to "no one knows" and even "you can't say that"—even in a single generation. The most valuable parts of the reminiscences of working scientists are not how "they saw the revolution coming" but what they and their colleagues all agreed to be the case and practiced as a matter of course in the years before the revolution arrived. When you write, think about what there is in your topic that is so generally well known that you would be embarrassed to say it—that is precisely what should be in your work. This is made easier when the author of a historical work has committed to

4. Present Sufficient Technical Detail

This journal has a large readership among working scientists in many fields interested in the technical details of the work done in the past—methods, procedures and ideas all together. It is easier for us to find the problem and its context and the shared assumptions of earlier scientists when we look at the details of their work. For the non-scientist readers this detail—when presented clearly and free of jargon—is an important part of their scientific education, and reminds them that good history of science has a lot of science in it. Finally, remember that historical work is shaped by the conventions of scientific work, and in such work you must

5. Follow the Professional Standards of the Field

History of earth science is still history, it is not itself earth science. There are rules of procedure for researching and writing history and though these are relatively straightforward, they are as inviolable and iron-clad as rules of scientific procedure which govern work within the natural sciences. They boil down to this: when you are writing about scientists of the past you must a) search out, examine and cite accurately and completely every historical work written on them and the areas they worked in up to the time of your own article or book; b) read everything your scientist/subject(s) wrote on the topic or problem at hand, and c) read as much as possible of what they read on that

topic or problem before they wrote on it and, sometimes even d) read what the people they read, read. This is how you find the problem, the context and the question of your topic and it is the means by which historians build a connected structure of information about the past, rather than series of fascinating but unconnected anecdotes.

The editor encourages prospective authors for *EARTH SCIENCES HISTORY* to contact him in the early stages of their projects to discuss these points in the specific contexts of their own historical researches.

PUBLICATION OF *EARTH SCIENCES HISTORY*

For the foreseeable future, *EARTH SCIENCES HISTORY* will continue to be printed and distributed for us by Allen Press, in Lawrence Kansas. In October 1993 I attended an editorial seminar at Allen Press on "electronic publishing" offered by that press to editors of small journals such as ours. I have since comparison-shopped prices and costs, and find Allen Press to be quite reasonable. I will, however, be moving the journal steadily throughout my editorship toward "electronic publishing"—with the hope that three to four years from now our journal will go to Allen Press on a series of computer diskettes containing the full number of the journal: made up, formatted, paginated, indexed, and requiring only the insertion of the accompanying half-tones, these to be digitized, sized and inserted at the press. The large apparent costs of publishing with Allen Press in the recent past appear to me to stem from 1) the fact that all our copy has gone to Allen Press as hard-copy and been retyped at the Press at our expense and 2) from revision charges stemming from authors' failure to carefully correct proofs (nudge nudge). These two areas have consumed 20% to 30% of the cost of each issue. With Allen press now willing and able to accept copy from us on diskette I hope that savings in these areas, by having authors submit final revised articles on diskettes, and by rigorously enforcing the journal's policy of charging back in-press revision charges to the authors, will eventually amount to \$2500.00 to \$3000.00 on a 150 page issue—which can then be plowed back into larger issues, or moving to three numbers a year rather than our current two numbers a year.

A NEW CITATION STYLE AND SUBMISSION POLICY

I direct the attention of our readers (this includes most of our authors, I believe) to the page opposite the last page of this editorial, entitled "Suggestions for Contributors to *EARTH SCIENCES HISTORY*". Therein are the new rules and formats for submissions to the journal.

In the past the journal has wavered between scientific and historical citation styles. Scientific style, or "author-date" style is compact and efficient for scientific work, but very cumbersome for archival sources, letters, maps and other primary materials of history.

Readers will note that many recent articles in *EARTH SCIENCES HISTORY* have contained two parallel sets of citations—"author-date" citations to printed works, and superscript and consecutively numbered footnotes to everything else. This is needlessly complex and expensive to work with. Standard historical styles of citation allow a uniform sequence of references and notes placed at the end of the text. The historical convention of giving the author's full name (rather than the scientific convention of initials only for first and middle name) is increasingly useful in efficient retrieval of sources from on-line catalogs and CD-ROM databases such as GeoRef.

After a good deal of thought and consultation I have chosen employ and to require henceforth the style known as "Chicago A Style" or "Chicago Humanities Style", employed by most of the English language historical journals in the world. It is fully compatible with standard bibliographic database products such as "Pro-Cite" and "Endnote". It has the further virtue that it allows us to make the 14th edition of the *Chicago Manual of Style* (1993) the official reference guide for all citation and abbreviation questions and conventions affecting the contents of our journal.

In this new style, we will employ endnotes only, keyed to consecutive superscript Arabic numerals in the text, with no separate bibliography or alphabetic reference list supplementing the list of reference endnotes. **This takes effect for all manuscript submissions, effective immediately.** It will be the author's responsibility to follow the format examples given in each issue of the journal as "Suggestions for Contributors", and to revise in this form before final submission of accepted manuscripts.

A BROAD VIEW OF *EARTH SCIENCES HISTORY*

Most of our articles have been and will continue to be in geology and paleontology, but I hope to broaden

the appeal of the journal by adding more contributions from other earth sciences. To this end I have added (and urge you to welcome) four new advisory editors to our distinguished board. I have added Prof. A.M.C. Sengör of Istanbul Technical University, a well known tectonic geologist and historian of tectonics, to reaffirm our commitment to traditional geological subjects. But I have also added Prof. Eric Mills, of Dalhousie University, an oceanographer and historian of oceanography and a recent guest editor of *EARTH SCIENCES HISTORY* (Vol. 12, No. 2); Prof. Dorothy Sack of the University of Wisconsin, a geomorphologist and historian of geomorphology; and Prof. Bruce Hevly of the University of Washington, a historian of technology who has worked on the history of atmospheric physics and more recently on the history of glaciology. I bring my own long-standing interest in the history of geophysics, meteorology and climatology to the journal's editorial board. I am inviting all current and active editors to remain on the board, as they represent the necessity continuity of specialist expertise, geographic range, and long experience. I look forward to working with all of them, and to serving the readership of the journal. It cannot go without saying that your suggestions, questions and criticisms are always welcome—and can reach the editor by mail, phone, fax and e-mail. I promise a direct and prompt reply to all suggestions and queries. I will also begin, in volume 14 of the journal, a "Letters to *EARTH SCIENCES HISTORY*" column, where corrections and suggestions can be advanced, and discussions and debates may take place. Finally, I am always looking for new manuscripts, and will be glad to discuss ideas with prospective authors at any stage of their work.

SUGGESTIONS FOR CONTRIBUTORS TO EARTH SCIENCES HISTORY

1. *EARTH SCIENCES HISTORY* promotes and publishes historical work on all areas of the earth sciences—geology, geography, geophysics, oceanography, paleontology, meteorology and climatology. The journal honors and encourages a variety of approaches to historical study: biography, history of ideas, social history, and histories of institutions, organizations and techniques.
2. Submit **manuscript** (original and two copies) to the Editor: Mott T. Greene, University of Puget Sound, Tacoma, Washington 98416, U.S.A. Please include an **abstract** of approximately 150 words. Contributors should retain a copy for reference, and should include return postage or international reply coupons if they desire return of submitted material.
3. Manuscript should be **typewritten** or processed on a **letter quality** printer and **double-spaced** throughout, including quotations and notes, on paper of standard size and weight. Margins should be wider than usual to allow space for instructions to the typesetter. All copy should be flush left, with the right hand margin left ragged (unjustified) to maintain even spacing and readability.
4. Revised manuscripts should be submitted in double-spaced hard copy and, whenever possible, on **3.25" diskettes** identifying both the platform (Mac, PC or Other) and the word-processing program used (WordPerfect 3.0, Word 5.1 etc.) All diskette copy should have **formatting stripped out**: it should all be flush left, unjustified, with no special character formats other than underlining (italics).
5. Bibliographic information should be given in **endnotes** (not parenthetically in the text), typed separately from the main body of the manuscript, **double-** or even **triple-spaced**, numbered consecutively throughout the article, and keyed to reference numbers in the text.
 - a. References to **books** should include author's full name; complete title of the book, underlined (italics); place of publication and publisher's name for books published after 1900; date of publication, including the original date when a reprint is being cited; page number cited. *Example:*
Eduard Suess, *The Face of the Earth*, 5 vols., Vol. I (Oxford: Clarendon Press, 1904), p. 17.
 - b. References to articles in **periodicals** should include author's name; title of article, in quotes; title of periodical, underlined (italics); year; volume number, Arabic and underlined (italics); number of issue if pagination requires it; page numbers of article; number of particular page cited. Journal titles are spelled out in full on first citation and abbreviated subsequently. *Example:*
David R. Oldroyd, "The Archaean Controversy in Britain: Part I—The Rocks of St. David's," *Annals of Science*, 1991, 48:407–452, on p. 434.
 - c. Succeeding citations of books and periodicals should use an abbreviated version of the title with the author's last name. Example: Oldroyd, "Archaean," p. 446.
6. **Figures** are welcome in illustrating articles. Line drawings should be directly reproducible, glossy prints must be furnished for all halftone illustrations. Where authors elect not to make voluntary page contributions (see 8 below), there is a charge of US \$15.00 for each figure in excess of two.
7. Manuscripts should be submitted to *EARTH SCIENCES HISTORY* with the understanding that upon publication, **copyright** will be transferred to the History of Earth Sciences Society. This understanding precludes *EARTH SCIENCES HISTORY* from considering material that is under consideration or accepted for publication elsewhere.
8. *EARTH SCIENCES HISTORY* requests **voluntary page contributions** from authors, but acceptance of manuscripts and publication are not contingent on payment of page charges.