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The Newsletter of the History of Science Society is published in January, April, July, and October, with supplements as necessary containing job information. Regular issues are sent free to individual members. Supplements are sent automatically to about ninety history of science departments and individuals, and will be sent to others on request. Non-members may subscribe to the Newsletter for \$5.00 per year.

Please send all news items, written as concisely as possible, to the Secretary of the Society, Dr. Roger H. Stuewer, School of Physics and Astronomy, University of Minnesota, Minneapolis, Minnesota 55455. The deadline for receipt of news for the April issue is March 15, and THIS WILL BE THE ONLY CALL FOR NEWS THAT WILL BE ISSUED.

1977 ANNUAL MEETING OF THE HSS IN DALLAS (DECEMBER 28-30)

The 1977 Annual Meeting of the HSS will be held with the American Historical Association in Dallas, Texas, December 28-30, in the Hotel Adolphus. The Local Arrangements Chairman is Professor Claude Albritton, Dean of Libraries, Southern Methodist University, Dallas, Texas 75275. The Program Chairman is Professor Frank N. Egerton, Division of Social Sciences, University of Wisconsin-Parkside, Kenosha, Wisconsin 53140. Please submit all program proposals to Professor Egerton no later than May 15, 1977. If you wish to give a paper, please submit an abstract of it to Professor Egerton by the same date.

XVth INTERNATIONAL CONGRESS OF THE HISTORY OF SCIENCE
(EDINBURGH, AUGUST 10-19, 1977)

The XVth International Congress of the History of Science will be held in Edinburgh, Scotland, August 10-19, 1977. For further information, please contact the Honorary Secretary, Dr. Eric G. Forbes, History Department, University of Edinburgh, 50 George Square, Edinburgh EH8 9JY, Scotland.

EXTENSION OF TRAVEL GRANT APPLICATION DEADLINE FOR XVth INTERNATIONAL CONGRESS
OF THE HISTORY OF SCIENCE (EDINBURGH, AUGUST 10-19, 1977)

The United States National Committee for the International Union for the History and Philosophy of Science (USNC/IUHPS) announces that it will award travel grants to scholars attending the XVth International Congress of the History of Science to be held in Edinburgh, Scotland, August 10-19, 1977. Scholars presenting papers, chairing sessions, or serving in an official IUHPS capacity at the Congress are encouraged to apply. Younger scholars and those who have not recently received grants through the USNC/IUHPS are especially encouraged to apply. Deadline for receipt of applications has been extended to March 1, 1977. All applications must be received by the USNC/IUHPS by March 1, 1977, or they will be declared ineligible for support. For information and forms write to Staff Associate, Assembly of Behavioral and Social Sciences, National Research Council, 2101 Constitution Avenue, Washington, D.C. 20418.

1976 HSS ELECTION RESULTS

The results of the 1976 HSS election are as follows: Robert P. Multhaupt was elected Vice President. Joan Bromberg, Roger Hahn, Sandra Herbert, Thomas P. Hughes, and Alan E. Shapiro were elected to the Council for three-year terms expiring December 31, 1979.

Ruth Schwartz Cowan, Robert H. Kargon, Mary P. Winsor, George Basalla, and Erwin N. Hiebert were elected to the 1977 Nominating Committee. A total of about 230 ballots were cast.

1976 HSS AWARDS AND PRIZES

The HSS's most prestigious award, the 1976 Sarton Medal, was presented to Bern Dibner (Norwalk, Connecticut) at the Annual Meeting in Philadelphia "for distinguished contributions to the cause of the history of science." The 1976 Pfizer Award went to Otto Neugebauer (Brown University) for his book, A History of Ancient Mathematical Astronomy. At the same time, an unprecedented "Citation of Outstanding Merit" was presented to Keith M. Baker (University of Chicago) for his book, Condorcet: From Natural Philosophy to Social Mathematics. The 1976 Schuman Prize was awarded to Richard F. Hirsh (University of Wisconsin) for his essay, "The Riddle of the Gaseous Nebulae: What Are They Made Of?" The 1977 Sarton Lecture will be delivered by Jane M. Oppenheimer (Bryn Mawr College) at the February meeting of the AAAS in Denver.

1977 HSS NOMINATING COMMITTEE

The President of the HSS, Richard S. Westfall, has appointed Professor Ruth Schwartz Cowan, Department of History, State University of New York, Stony Brook, New York 11790, as Chairperson of the 1977 HSS Nominating Committee. The names and addresses of the other members of the Committee, to whom names of nominees may also be sent, are as follows: Professor Robert H. Kargon, Department of History of Science, Johns Hopkins University, Baltimore, Maryland 21218; Professor Mary P. Winsor, Institute for the History and Philosophy of Science and Technology, University of Toronto, 191 College Street, Toronto 2B, Ontario, Canada; Professor George Basalla, Department of History, University of Delaware, Newark, Delaware 19711; and Professor Erwin N. Hiebert, Department of the History of Science, Harvard University, Cambridge, Massachusetts 02138.

The 1977 Nominating Committee is charged with nominating candidates for the HSS Council, with three year terms expiring December 31, 1980, and for the 1978 HSS Nominating Committee. By Article 10 of the HSS Statutes, for the Council, the 1977 ballot "shall contain the names of ten candidates proposed by the Nominating Committee together with the names of other candidates nominated by petitions signed by at least fifteen members of the Society. For the [1978] Nominating Committee...the ballot shall contain ten names separated into two lists, one with six names of members of the Council, the other with four names of other members of the Society, together in both cases with the names of other candidates nominated by petitions signed by at least fifteen members of the Society.... Nominating petitions, together with the agreement of the person nominated, must reach the chairperson of the Nominating Committee by the first of September of the year of the election." The resulting 1977 ballot will be published in the October Newsletter.

At any given time, the HSS Council consists of the Past Presidents of the Society, the Executive Committee of the Society, and fifteen members of the Society. The Past Presidents of the HSS are: Henry Guerlac, Marshall Clagett, I. Bernard Cohen, Harcourt Brown, Dorothy Stimson, Chauncey Leake, Charles Gillispie, Thomas S. Kuhn, Lynn White, Jr., Erwin N. Hiebert, and John C. Greene. Richard S. Westfall is the current President; Robert P. Multhauf the Vice President; Roger H. Stuewer the Secretary; and Arthur L. Norberg the Treasurer. Other past and present Council members, with three-year terms expiring on December 31 of the years indicated, are: (1964) B. Hindle, T. Smith, C. Smith, L. White, Jr., and R. Siegfried; (1965) A. Debus, G. Holton, J. Murdoch, L. P. Williams, and J. Saunders; (1966) E. Grant, C. D. Hellman, E. Mendelsohn, A. Ihde, and W. Stahlman; (1967) W. Coleman, R. Hahn, N. Reingold, W. Stahl, and H. Woolf; (1968) J. Beer, H. Leicester, R. Schofield, J. Stannard, and R. Westfall; (1969) L. Wilson, A. Osipov, W. Cannon, C. Condit, and E. Hiebert; (1970) E. Collins, J. Abrams, D. Roller, W. Coleman, and J. Burke; (1971) G. Basalla, G. Daniels, F. L. Holmes, G. Stocking, Jr., and C. Weiner; (1972) F. Churchill, S. Drake, J. Heilbron, D. Lindberg, and T. Settle; (1973) M. Klein, C. Culotta, M. McVaugh, H. Sharlin, and T. Hankins; (1974) P. Forman, C. Boyer [R. Rappaport], P. Ritterbush, C. Rosenberg, and W. Scott; (1975) M. Crowe,

J. Fullmer, L. Graham, C. Iltis, and W. Shea; (1976) A. Aaboe, J. Grabiner, M. Rossiter, W. Wallace, and M. P. Winsor; (1977) L. Badash, J. M. Oppenheimer, A. I. Sabra, D. L. Hall, and J. Cadden; (1978) R. S. Cowan, R. Kargon, C. Limoges, A. Thackray, and R. S. Westman; and (1979) J. Bromberg, R. Hahn, S. Herbert, T. P. Hughes, and A. E. Shapiro.

1977 PFIZER AWARD

The Pfizer Award, consisting of a medal and a cash prize of \$1000, was established in 1958 through the generosity of Charles Pfizer & Company, Inc., to recognize and reward "the best published work related to the history of science in the preceding year [in this case 1976] written by an American or Canadian author." The Pfizer Award Committee, which is appointed by the President of the HSS, is this year chaired by Professor Judith V. Grabiner, Small College, California State College, Dominguez Hills, California 90747. Nominations for the Pfizer Award should be submitted to Professor Grabiner by May 1, 1977. The announcement of the Award-winning work will be made at the annual meeting of the History of Science Society.

1977 HENRY SCHUMAN PRIZE

PLEASE POST THIS ANNOUNCEMENT FOR STUDENTS

The competition for the annual award of \$250, established in 1955 by Ida and the late Henry Schuman of New York City for an original prize essay in the history of science and its cultural influences, is open to graduate and undergraduate students in any American or Canadian college, university or institute of technology. Papers submitted for the prize competition should be approximately 5,000 words in length, exclusive of footnotes, and thoroughly documented. It is hoped that the prize-winning essay will merit publication in Isis.

It was the wish of the donors that "history of science and its cultural influences" be interpreted very broadly. The papers may deal with the ideas and accomplishments of scientists in the past; they may trace the evolution of particular scientific concepts; or study the historical influences of one branch of science upon another. The phrase "cultural influences" is taken to include studies of the social and historical conditions that have influenced the growth of science, or the effects of scientific developments upon society in the realms of philosophy, religion, social thought, art and literature, economic progress, etc. Essays dealing with medical subjects are not acceptable, although papers dealing with the relations between medicine and the natural sciences will be welcome.

The Schuman Prize Committee, which is appointed by the President of the HSS, is this year chaired by Professor Joe D. Burchfield, Department of History, Northern Illinois University, De Kalb, Illinois 60115. To be eligible for consideration, papers (not more than one from each competitor) must be postmarked on or before July 1, 1977. It is requested that three copies of each paper be submitted, and that the names and institutions of the contributors be placed on a separate title page so that they may be removed before being read by the members of the Committee. The announcement of the Prize-winning essay will be made at the annual meeting of the History of Science Society.

UPDATE OF HSS GUIDE TO GRADUATE STUDY AND RESEARCH

A revised edition of the History of Science Society Guide to Graduate Study and Research in the History of Science, Technology and Medicine is now in preparation. To make this new edition as accurate and complete as possible, the advice and assistance of members of the HSS would be appreciated. Please examine your current (1974) edition of the Guide (pages 98-110 of the Isis Directory). If you know of any department or program overlooked in this edition, please bring it to my attention. Information on non-North American programs is invited. Those programs whose present entries need to be corrected or brought up to date should submit changes adhering rigidly to the format in

1974 edition (see page 98). Please do this as soon as possible, and send all information to Professor Richard H. Schallenberg, Department of History, Virginia Polytechnic Institute and State University, Blacksburg, Virginia 24061.

REPORT OF THE HSS COMMITTEE ON PROCEDURES AND PRIORITIES IN
ESTABLISHING THE SOCIETY'S ANNUAL PROGRAMS

At the October 26, 1974, HSS Council meeting a motion was made and carried that "the President of the Society...appoint a committee to study the problem of planning meetings..." President John C. Greene requested that Professor Michael J. Crowe chair this committee. Professors Frederick B. Churchill, Alan G. Debus, and June Z. Fullmer also agreed to serve. An extensive questionnaire was prepared for inclusion in the November 1975 Newsletter, and approximately 90 responses were received. The following recommendations are the result of the committee's deliberations and analysis of these responses:

I. The Chairperson for the program of the Society's meetings should be appointed at least one year before the meeting for which he/she is to have program responsibilities.

II. The Chairperson should select two or three members of the Society to provide advice on the contents of the program.

III. The Program Chairperson should solicit proposals for sessions from the Society's membership by means of the Newsletter and other public announcements and by means of direct appeals to individuals.

IV. The Chairperson and committee should carefully select among the proposals in terms of the overall and long-range goals and needs of the Society's membership.

V. Approximately twenty percent of the program should be devoted to work-in-progress papers, over which limited quality control should be exercised.

VI. We urge that increased efforts be made to secure papers from the leading contributors to the history of science.

VII. We urge that increased attention be given to the fostering of informal contacts and to the more creative use of the evening hours of the national meetings.

VIII. At five-year periods (specifically in years divisible by five), the Society should send out questionnaires wherein the members may express their preferences in regard to the format, content, and procedures of the national meetings.

IX. We recommend that the Program Committee give consideration to recommendations relating to program procedures contained in reports submitted to and received by the Council of the History of Science Society.

X. We urge that Program Chairpersons prepare thorough reports on their activities in establishing the program, and that these include their general recommendations for future Program Committees and whatever systematic information they can provide.

XI. We urge the creation of a generalized resource collection of materials to be passed on each year to the Program Committee.

The Committee has provided detailed comments on each of the above recommendations in its full report. Anyone wishing to receive a copy of it, or to offer any suggestions, please write to Professor Michael J. Crowe, Program in History and Philosophy of Science, University of Notre Dame, Notre Dame, Indiana 46556.

REPORT OF COMMITTEE ON UNDERGRADUATE EDUCATION

The following members of the Committee were appointed to serve beginning in fall 1976: Stephen G. Brush (University of Maryland), chairman; David Allison (graduate student, Princeton); Arthur Donovan (University of West Virginia, Morgantown); Leonard Fine (Housatonic Community College, Bridgeport, Connecticut); Paul Farber (Oregon State

University, Corvallis); Maurice Finocchiaro (University of Nevada, Las Vegas); Loyd Swenson (University of Houston); Eleanor Webster (Wellesley College); and John Greene (University of Connecticut), ex officio.

Copies of the December 1975 Report on Undergraduate Education in the History of Science are still available for free distribution. Correspondence about this and other C.U.E. business should be addressed to: Dr. S. G. Brush, Department of History, University of Maryland, College Park, Maryland 20742.

The Committee held an open meeting in Philadelphia on December 29, 1976, with 11 guests present in response to an invitation to the audience at the session on teaching at the HSS-SHOT meeting. Anyone who would like to attend the next meeting of the Committee (at the Dallas HSS meeting in December 1977), suggest possible actions to the Committee, learn about its current projects, or nominate members (including self-nominations) is urged to contact the chairman.

Items of general interest to teachers of history of science are as follows:

1. The National Science Foundation has recently started several science education programs which can provide grants for projects involving history of science, e.g. LOCI (Local Course Improvement), CAUSE (Comprehensive Assistance to Undergraduate Science Education), PSTEP (Pre-Service Teacher Education Program), Science Faculty Professional Development Program, Chautauqua-Type Short Courses, Alternatives in Higher Education, Public Understanding of Science, Ethical and Human Value Implications of Science and Technology, Science for Citizens, etc. Official guidelines for preparing proposals should be requested directly from NSF, and up to date information about these programs is contained in the free NSF Bulletin (write to Public Information Branch, National Science Foundation, Washington, D. C. 20550). The C.U.E. may be able to offer some advice to those who lack experience in grantsmanship.

2. A preliminary proposal for a visiting historian of science program, to promote the subject in colleges which do not presently have a regular faculty member to teach it, has been submitted to NSF in order to determine if such a program would be eligible for funding. If this inquiry receives a favorable response, advice will be solicited from the officers, council and other interested members of HSS in preparing a detailed proposal.

3. A preliminary proposal for a fund to support publication of teaching materials (articles, books, reprints, etc.) has also been submitted to NSF. Suggestions on how such a fund might be used are invited.

4. Articles on teaching the history of science are welcomed by the editor of the HSS Newsletter, and by Professor Harold Sharlin (Iowa State) who edits a section on education in Annals of Science. Articles directed toward history teachers may be submitted to the newsletters published by the American Historical Association and by the Committee on History in the Classroom (for the latter, write to J. A. Scott, School of Law, Rutgers University, 180 University Avenue, Newark, New Jersey 07102). Articles addressed to science teachers may be submitted to a number of magazines such as the Journal of College Science Teaching, American Journal of Physics, Journal of Chemical Education, etc.

5. A session on teaching the history of science is now being planned for the 1977 HSS meeting by a subcommittee of C.U.E. consisting of Arthur Donovan and Maurice Finocchiaro. Suggestions should be sent directly to one of them.

6. Some members of C.U.E. feel that we should improve our relations with scientists, explore ways to promote the use of history of science in science education, and perhaps rewrite the 1975 Report for circulation to this audience. A subcommittee (Leonard Fine and Eleanor Webster) is now considering this problem and welcomes comments on it.

7. Those present at the C.U.E. meeting voted unanimously to request the HSS Council

to urge NSF to revive summer institutes in the history and philosophy of science for college teachers. Those who participated in such institutes and can furnish evidence as to their value are urged to write to the chairman.

8. A subcommittee (David Allison and Arthur Donovan) will explore new programs in the humanities where history of science could play a role. One possible program is the NEH Summer Seminars for College Teachers. Out of 106 seminars announced for 1977, four have at least a marginal connection with history of science.

9. There has been considerable interest recently in interdisciplinary programs such as "technology and values," as discussed by Ray Merritt at the Wednesday afternoon session of HSS-SHOT. A subcommittee of C.U.E. (Paul Farber and Loyd Swenson) will investigate how historians of science and technology can participate in such programs.

10. It was suggested that people who teach history of science could benefit from regional meetings to exchange ideas and information. Sessions at meetings of other societies (historians or scientists) could also serve this purpose, as well as publicizing history of science to members of those societies. Paul Farber and Loyd Swenson have agreed to act as a subcommittee to look into this possibility.

11. The first recommendation of the 1975 Report was that HSS should "encourage consideration by graduate programs of further steps to prepare future Ph.D.'s to meet the diverse needs of undergraduate education in a broad spectrum of educational situations." David Allison and Maurice Finocchiaro will consider possible ways of implementing this recommendation.

12. Paul Sherman (Harrison High School, Union Avenue, Harrison, New York 10528) chairs a committee on history of science in pre-college education and would like to hear from people interested in this subject.

13. Viewer's guides to parts of the Ascent of Man series have been prepared at Wellesley College and may be purchased for \$4.50 (6 pamphlets, also available separately). Write to Dr. Eleanor Webster, Chemistry Department, Wellesley College, Wellesley, Massachusetts 02181.

EVIST PROGRAM OF NSF

The Ethics and Values in Science and Technology (EVIST) Program of the National Science Foundation is currently developing a new Program Announcement which it hopes to publish in March 1977. To receive a copy of this announcement, or further information on the EVIST Program, please write to Dr. William A. Blanpied, Program Manager, EVIST Program, Office of Science and Society, National Science Foundation, Washington, D.C. 20550.

AAAS MASS MEDIA INTERN PROGRAM

The American Association for the Advancement of Science (AAAS) announces a program to support up to 18 advanced social and natural science students as intern reporters, researchers, and production assistants in a variety of media for the summer of 1977. Interested students should write to Coordinator, Mass Media Intern Program, AAAS, 1776 Massachusetts Avenue, N.W., Washington, D. C. 20036.

INVENTORY OF PRIMARY SOURCE MATERIAL IN 20TH CENTURY PHYSICS

The Office for History of Science and Technology at the University of California, Berkeley, is undertaking a world-wide survey of archival holdings related to physics in this century. The resulting inventory, which will be published in due course, will locate and identify correspondence and unpublished papers of approximately one thousand physicists active between 1900 and 1950. Of particular interest is documentation of contact between physicists and intellectuals outside the domain of academic physics.

Readers with special knowledge of: (1) Unpublished correspondence with physicists, particularly items in private hands or in archival collections associated primarily with non-physicists; (2) Letters to or from a physicist published in journals or books not likely to be well known to historians of science; or (3) Archival holdings of the papers of little-known physicists; are urged to relay this information to the Survey of Archives, Office for History of Science and Technology, 470 Stephens Hall, University of California, Berkeley, California 94720.

WORLD LIST OF ASTRONOMICAL OBSERVATORIES,
INSTRUMENTS AND CLOCKS 1670-1850

In connection with the International Astronomical Union's projected General History of Astronomy, an index of instruments and clocks used world-wide between 1670 and 1850, observatory by observatory, and country by country, is being compiled at the National Maritime Museum, Greenwich. It will include the larger private observatories. Offers of help from scholars willing to assist in the compilation, particularly from those who know of existing sources, or who would be willing to do research, will be gratefully received by H. D. Howse, Head of Navigation and Astronomy, National Maritime Museum, Greenwich, London, SE10 9NF, England.

NEWSLETTER ON SCIENCE, TECHNOLOGY & HUMAN VALUES

The Newsletter on Science, Technology & Human Values (formerly, the Newsletter of the Program on Public Conceptions of Science) has begun its fifth year of publication. Four issues will appear in academic year 1976/77: October, January, April and June. Designed as a resource guide for research and teaching, the Newsletter focuses on the ethical and social dimensions of contemporary science and technology. Each issue includes: timely reports of actions by governmental agencies, meetings and conferences, fellowship opportunities; accounts of research in progress; information on academic curricula and courses; scholarly articles; and an updated and extensively annotated bibliography of current literature. Subscriptions for 1976-77 cost \$6.00 and begin with the October issue. To subscribe or to request additional information, write to Newsletter on Science, Technology & Human Values, Aiken Computation Laboratory 231, Harvard University, Cambridge, Massachusetts 02138.

NEW ADDRESS FOR CHINESE SCIENCE

Effective June 1, 1977, the editorial office of Chinese Science will be located in the Department of Oriental Studies, University of Pennsylvania, Philadelphia, Pennsylvania 19174.

NEW ADDRESS FOR HARVARD HISTORIANS OF SCIENCE

The address of the Department of the History of Science, Harvard University, and for Professors I. Bernard Cohen, Erwin N. Hiebert, Everett Mendelsohn, John E. Murdoch, Barbara G. Rosenkrantz, and A. I. Sabra, has been changed to Science Center 235, Cambridge, Massachusetts 02138.

CENTER FOR THE CULTURE OF BIOMEDICINE AND SCIENCE ESTABLISHED
AT THE UNIVERSITY OF DELAWARE

A new Center for the Culture of Biomedicine and Science has been established recently at the University of Delaware. For further information on its goals and activities, please contact its Director, Professor Edward Lurie, Department of History, University of Delaware, Newark, Delaware 19711.

JASON HANNAH CHAIRS FOR THE HISTORY OF MEDICINE ESTABLISHED

Each of Ontario's five medical schools will receive \$55,000 to establish a Jason Hannah Chair for the History of Medicine and Related Sciences. The University of Toronto's

Hannah Professor is Dr. Pauline Mazumdar. For further information on the Hannah Professorships, please contact Dr. G. R. Paterson, Executive Director, Hannah Institute for the History of Medical and Related Sciences, 50 Prince Arthur Avenue, Suite 105, Toronto, Ontario, Canada.

BOOKS AND JOURNALS FOR ASIA

BOOKS FOR ASIA, a project of The Asia Foundation, asks that you send books and journals you are no longer using to the address given below. Books must be published in 1965 or later, and be in excellent condition. At least one complete year of a journal published since 1950, and long complete runs in particular, are needed. Donations of books and journals are tax deductible. If you have any questions or wish to send materials, please direct them to BOOKS FOR ASIA, Attn: Carlton Lowenberg, Director, 451 Sixth Street, San Francisco, California 94103.

BOSTON COLLOQUIUM FOR THE PHILOSOPHY OF SCIENCE 1976-1977

Regular meetings of the Boston Colloquium for the Philosophy of Science are held at 7:45 P.M. Tuesdays, in Room 314 of the Sherman Union, Boston University, Boston. The program for 1976-77 is as follows: (1) October 12, Dominique Lecourt (University of Picardie), "Bachelard and Marx: Marxism and Epistemology"; (2) October 19, L. Jonathan Cohen (Queen's College, Oxford), "The Structure of Probabilistic Reasoning in Legal Proof"; (3) October 21, 25, 26, Yehuda Elkana (Hebrew University), "Science as a Cultural System: Three Lectures"; (4) November 4, Satosi Watanabe (University of Hawaii), "Propensity Automata--A New Foundation of Logic"; (5) November 9, Francesca Rivetti Barbo (University of Calabria), "Dialogue: How Do We Know What Other People Mean?"; (6) November 16, George Schlesinger (University of North Carolina, Chapel Hill), "The Choices of Humans and Machines and Their Predictability"; (7) November 30, Judith Buber Agassi (The Hebrew University, Rehovot), "Alienation from Work: A Conceptual Analysis"; (8) December 7, Jagdish Hattiangadi (York University), "The Structure of Problems"; (9) December 14, Jürgen Habermas (Max-Planck-Institute, Starnberg), "Communicative Action"; (10) January 18, David Hemmendinger (Ohio State University), "Galileo and the Phenomena: On Making the Evidence Visible"; (11) January 25, David Zilberman (Brandeis University), "The Systems of Hindu Thought as Epistemic Disciplines"; (12) February 1, Joachim Pfarr (University of Cologne), "Protophysics of Time and the Principle of Relativity"; (13) February 8, John H. Harris (University of Otago), "A New View of Scientific Theories"; (14) February 22, Donald T. Campbell (Northwestern University), "Evolutionary Epistemology"; (15) March 1, Anthony M. Quinton (University of Oxford), "Scientific Realism as an Ontology"; (16) March 15, Carol Gould (Swarthmore College), "Beyond Causality in the Social Sciences: Reciprocity as a Model of Non-Exploitative Social Relations"; (17) March 22, Laszlo Tisza, (M.I.T.), "Towards a Reconstruction of the Principles of Mathematical Physics"; (18) March 29, Wolfgang Krohn (Max-Planck-Institute, Starnberg), "The Scientific Revolution of the Renaissance in the Light of Piaget's Theory of Cognitive Development"; (19) April 5, David Malament (University of Chicago), "Does the Causal Structure of Space-Time Determine its Geometry?"; (20) April 19, Leon Eisenberg (Harvard Medical School), "The Apparition of Clonal Man"; (21) May 3, Paul D. MacLean (National Institute of Mental Health), "The Triune Brain and 'Epistemics'". For further information, contact Professor Robert S. Cohen, Department of Physics, Boston University, Boston, Massachusetts 02215.

INTERDISCIPLINARY COLLOQUIUM IN THE HUMAN SCIENCES 1976-1977

The second annual program of the Interdisciplinary Colloquium in the Human Sciences held at California State University, Los Angeles, is as follows: (1) October 14, Donald O. Dewey (California State University, Los Angeles), "James Madison's Notes on the Federal Convention: He Told it as it Was!"; (2) October 20, Lance Davis (California Institute of Technology), "British Imperialism 1860-1912: Economic Activity and Fiscal Control"; (3) October 27, Carolyn K. Harding (University of California, Los Angeles), "Social Genetics and Cold War Politics"; (4) November 4, Judith Goodstein (California

Institute of Technology), "Science Under Fascism: Mussolini and His Scientists"; (5) November 10, Edwin C. Krupp (Griffith Observatory), "In Search of Ancient Astronomies"; (6) November 17, Edric Cane (Occidental College, Los Angeles), "Cartesian and Newtonian Attitudes in 18th Century France"; (7) January 13, Robert L. Curry, Jr. (California State University, Sacramento), "Growth and Underdevelopment: Some African Cases"; (8) January 19, Leon Schwartz (California State University, Los Angeles), "The Modernity of Diderot"; (9) January 27, Axel Leijonhufvud (University of California, Los Angeles), "On Keynes and Keynesian Economics"; (10) February 9, M. C. Pike (University of Southern California), "Evaluating the Efficacy of Medical Procedures"; (11) February 18, Roger L. Ransom (University of California, Riverside), "Slavery and Freedom: An American Contradiction"; (12) March 2, Elvin Hatch (University of California, Santa Barbara), "Anthropology in the 1930's: Creating a Modern View of Man"; (13) April 6, Benjamin W. Smith (California State University, Los Angeles), "The Political Theory of Thorstein Veblen"; (14) April 14, Christe McMenomy (University of California, Los Angeles), "The Textbook Tradition in 13th Century Astronomy: A Generations' Approach"; (15) April 20, Albin Kazanowski (Rockwell International Corp.), "Technology: Anathema or Panacea?"; (16) April 28, Morgan Kousser (California Institute of Technology), "Time on the Cross: Cliometrics Crucified?"; (17) May 4, Judith Grabiner (California State College, Dominguez Hills), "Highway Robbery or Common Predecessors?: The Rigorization of the Calculus as a Case Study in the Historiography of Simultaneous Discovery"; (18) May 11, John C. Howe (Flintridge Preparatory School), "The Theory of Splines and Their Applications in the Social Sciences"; (19) May 19, Shirley Anderson (University of California, Los Angeles), "Ownership, Efficiency and the Urban Mass Transportation Administration Capital Grants"; (20) May 25, Michael Wapner, (California State University, Los Angeles), "Space, Time, and Identity". For specific times and places, the program itself must be consulted. It may be obtained from Professor John C. Howe, Department of Economics and Statistics, California State University, Los Angeles, 5151 State University Drive, Los Angeles, California 90032.

AAAS SESSION ON NEWTON (DENVER, FEBRUARY 23, 1977)

A session entitled, "New Light on Newton: To Honor the 250th Anniversary of His Death" will be held at 3:00 P.M. Wednesday, February 23, in the Century Room of the Denver Hilton during the forthcoming meeting of the AAAS. This session has been arranged by Professor Ernan McMullin (University of Notre Dame), who will preside over it. The speakers and their papers are as follows: Richard S. Westfall (Indiana University), "Newton's Years of Discovery and Their Aftermath"; James E. McGuire (University of Pittsburgh), "Newton's Dynamics and Absolute Space"; Alan E. Shapiro (University of Minnesota), "Newton's Optical Lectures"; and Michael Mahoney (Princeton University), "Algebraic Versus Geometric Techniques in Newton's Determination of Planetary Orbits."

JOINT ATLANTIC SEMINAR IN THE HISTORY OF THE PHYSICAL SCIENCES
(RALEIGH, NORTH CAROLINA, MARCH 18-19, 1977)

The annual meeting of the Joint Atlantic Seminar in the History of the Physical Sciences has been scheduled for March 18-19, 1977, in Raleigh, North Carolina, under the auspices of the History Departments of North Carolina State University, Duke University and the University of North Carolina. Papers are called for in the areas of the seventeenth and eighteenth century physical sciences, nineteenth and twentieth century chemistry and physics. Papers or drafts of papers from graduate students are particularly welcome, as the organizers hope to include workshop sessions to help graduate students to hone their professional skills. Anyone wishing to participate in the seminar should contact Professor James Mulholland, Department of History, North Carolina State University, Raleigh, North Carolina 27607.

ANNUAL MEETING OF THE MIDWEST JUNTO OF THE HISTORY OF SCIENCE
(STILLWATER, OKLAHOMA, MARCH 24-26, 1977)

The Annual Meeting of the Midwest Junto of the History of Science will be held at Oklahoma State University, Stillwater, Oklahoma, March 24-26, 1977. The Program

Chairman will be Professor Alexander M. Ospovat, Department of History, Oklahoma State University, Stillwater, Oklahoma 74074.

FIFTH SYMPOSIUM ON PHILOSOPHY AND MEDICINE (LOS ANGELES, APRIL 14-16, 1977)

The Fifth Symposium on Philosophy and Medicine, "Clinical Judgment," will be held at the University of California at Los Angeles, April 14-16, 1977. For further information, please contact either H. Tristram Engelhardt, Jr., Ph.D., M.D., Institute for the Medical Humanities, University of Texas Medical Branch, Galveston, Texas 77550; Stuart F. Spicker, Ph.D., Department of Community Medicine and Health Care, The University of Connecticut Health Center, Farmington, Connecticut 06032; or Bernard Towers, M.B., Ch.B., Professor of Pediatrics and Anatomy, Center for the Health Sciences, University of California at Los Angeles, Los Angeles, California 90024.

PACIFIC NORTHWEST AMERICAN STUDIES ASSOCIATION ANNUAL CONFERENCE
(PULLMAN, WASHINGTON, APRIL 15-17, 1977)

The Pacific Northwest American Studies Association (PNASA) issues a call for papers on the subject of "The Sciences and the Humanities in America" to be presented at its annual conference at Washington State University, Pullman, Washington, April 15-17, 1977. Papers dealing with the relationship between the Humanities and the Sciences (including the Social Sciences) are solicited. They may consider the subject from a historical or contemporary context. Papers are also solicited from scientists who may wish to reflect on their work in a broader, more interdisciplinary framework. A February deadline was established for submission of papers, but historians of science and technology who wish to present papers may reserve a place on the program by immediately contacting Professor Glen Love, President of the PNASA, Department of English, University of Oregon, Eugene, Oregon 97403.

SYMPOSIUM ON THE HISTORY OF NUCLEAR PHYSICS
(MINNEAPOLIS, MAY 18-21, 1977)

A Symposium on the History of Nuclear Physics will be held at the University of Minnesota, Minneapolis, May 18-21, 1977, under the sponsorship of the University's history of science and technology program. The Organizing Committee consists of Maurice Goldhaber (Brookhaven National Laboratory), Morton Hamermesh (Minnesota), Edwin M. McMillan (Berkeley), Alfred O. Nier (Minnesota), Roger H. Stuewer (Minnesota), and Spencer Weart (Center for History of Physics). The tentative program is as follows: Hans A. Bethe (Cornell) will give the introductory lecture, emphasizing the history of the compound nucleus, on the evening of May 18. Eugene P. Wigner (Princeton) will also probably discuss the history of the compound nucleus, as well as related developments. Otto R. Frisch (Cambridge) will speak on "Experimental Work with Nuclei: Hamburg, London and Copenhagen." Rudolf E. Peierls (Oxford and Washington) will discuss "The Development of our Ideas on Nuclear Forces." Maurice Goldhaber will speak on the history of "The Nuclear Photo-Electric Effect." Emilio Segrè (Berkeley) will discuss nuclear physics in Rome or later aspects of his work. Edwin M. McMillan (Berkeley) will probably talk on the history of accelerators with special emphasis on work at Berkeley. John A. Wheeler (Princeton and Texas) will talk on "A Few Men and Moments in Nuclear Physics: The Interplay of Colleagues and Motivations."

It appears likely that there will be some travel support available for interested and qualified participants, and that some will be specifically set aside for graduate students and recent Ph.D. recipients in the history of physics. Some travel support will also likely be available for senior scholars. Graduate students and recent Ph.D. recipients in the history of physics who wish to apply for these travel funds are invited to write a letter describing their research plans or activities (including, if possible, how they relate to the subject of the Symposium), date of Ph.D. (expected or awarded), name of thesis advisor, and any other relevant information, to Professor Roger H. Stuewer, School of Physics and Astronomy, University of Minnesota, Minneapolis, Minnesota 55455. These letters should be received as soon as possible but no later than March 1, 1977. Other people interested in attending the Symposium are also invited to write to Professor Stuewer for further information.

MEETING OF SOCIETY FOR EXACT PHILOSOPHY (VICTORIA, BRITISH COLUMBIA,
MAY 24-27, 1977)

The Society for Exact Philosophy will meet at the University of Victoria, Victoria, British Columbia, May 24-27, 1977. Tentative speakers include Jeffrey Bub (University of Western Ontario), Kit Fine (University of California at Irvine), Ian Hacking (Stanford University), John Heintz (University of Calgary), Hughes Leblanc (Temple University), and Gary Miller (University of Victoria). Deadline for submitted papers is February 28, 1977. For further information, contact Professor Charles G. Morgan, Philosophy Department, University of Victoria, Victoria, British Columbia V8W 2Y2, Canada.

SYMPOSIUM ON SCIENTIFIC INSTRUMENTS: THEIR SOCIAL AND ECONOMIC
SETTINGS (NATIONAL MARITIME MUSEUM, GREENWICH, AUGUST 22-24, 1977)

The above Symposium, sponsored jointly by the National Maritime Museum and the British Society for the History of Science, will be held at Greenwich, August 22-24, 1977, immediately following the XVth International Congress of the History of Science at Edinburgh. Full details may be obtained from the Organising Secretary, Department of Navigation and Astronomy, National Maritime Museum, Greenwich, London, SE10 9NF, England.

MEETING OF AMERICAN CHEMICAL SOCIETY DIVISION OF HISTORY OF CHEMISTRY
(CHICAGO, AUGUST 28-SEPTEMBER 2, 1977)

In addition to general papers, the ACS Division of the History of Chemistry will be sponsoring two symposia. The first is entitled, "Archaeological Chemistry", and further information on it may be obtained from Dr. Giles Carter, Department of Chemistry, Eastern Michigan University, Ypsilanti, Michigan 48197. A special poster session is also planned. Discussions will also take place concerning the feasibility of establishing a sub-division of Archaeological Chemistry. The second is entitled "Chemotherapy", and further information on it may be obtained from Dr. Tonja Koepfel, Department of Physical Sciences, Ocean County College, Toms River, New Jersey 08753. Deadline for the submission of the standard ACS abstract forms is May 15, 1977. For general inquiries concerning Division programs, contact Professor O. B. Ramsay, Program Chairman, Division of the History of Chemistry, Department of Chemistry, Eastern Michigan University, Ypsilanti, Michigan 48197.

SECOND ANNUAL EUROPEAN STUDIES CONFERENCE
(OMAHA, OCTOBER 13-15, 1977)

The Second Annual European Studies Conference will be held October 13-15, 1977, at the Omaha Hilton Hotel, Omaha, Nebraska. Sponsored by the University of Nebraska at Omaha, this is to be an interdisciplinary meeting with sessions devoted to current research, research tools and techniques, and teaching methodology as well as traditional topics. Abstracts of papers should be submitted by May 1. These and all inquiries should be sent to Professor Orville Menard, Department of Political Science, University of Nebraska at Omaha, Box 688, Omaha, Nebraska 68101.

FOURTH ST. LOUIS CONFERENCE ON MANUSCRIPT STUDIES (ST. LOUIS, OCTOBER 13-15, 1977)

The Fourth St. Louis Conference on Manuscript Studies will be held at St. Louis University, October 13-15. An invitation has been extended for papers dealing with one of the four following aspects of the manuscript: Codicology, Illumination, Paleography and Texts. Those wishing to participate should request additional information from the Conference Committee, Vatican Film Library, Pius XII Memorial Library, 3655 West Pine, St. Louis, Missouri 63108.

HISTORY OF GEOLOGY NEWS AND ANNUAL MEETING
(SEATTLE, NOVEMBER 7-9, 1977)

A History of Geology Division of the Geological Society of America has now been approved by the Council of the Society. The first officers are: Chairman, Professor

Claude C. Albritton, Southern Methodist University, Dallas; Secretary, Dr. Clifford Nelson, Office of the Historian, U.S. Geological Survey, Reston, Virginia; First Vice President, Professor Gordon Winder, University of Western Ontario; Second Vice President, Professor Robert Dott, Jr., University of Wisconsin, Madison. At the Annual Meeting of the Geological Society in Denver, November 8-12, 1976, the Hydrogeology Division presented a Symposium on "History of Hydrogeology in America." A general session of the Society on History of Geology was attended by about 150 persons. In this session papers by geologists and historians, including an art historian, were presented.

For the next Annual Meeting in Seattle, November 7-9, 1977, a Symposium on "Geology of the Early Explorers in Western North America" is being organized by Professor Geroge W. White and Dr. Clifford Nelson, who have been appointed members of a Program Committee. For further information, contact Professor White, Department of Geology, 254 Natural History Building, University of Illinois at Urbana-Champaign, Urbana, Illinois 61801.

REPORT ON NEW HAMPSHIRE BICENTENNIAL CONFERENCE ON THE HISTORY OF GEOLOGY
(OCTOBER 15-19, 1976)

Professor Cecil J. Schneer, Department of Earth Sciences, James Hall, University of New Hampshire, Durham, New Hampshire 03824, reports that forty geologists and historians from points as widely separated as Saskatchewan and Paris, met at the University of New Hampshire October 15-19, 1976, for four days of seminar discussions of the History of Geology in America. The Conference opened Saturday morning with a public lecture by H. William Menard of Scripps Institute on the difficulties that accompanied the interpretation of the post-war oceanographic observations. Dr. Menard described the accumulation of observations contradicting the traditional concepts of permanent continents and ocean basins, culminating in the revolutionary concepts of drift through sea-floor spreading.

Discussions of the relationships of geology to art, literature and architecture in the early American republic were conducted by historians from Ohio, Iowa, Wisconsin, Columbia, and the Museum of Natural History of Paris. Conferees discussed 29 papers which had previously been distributed, on Guettard's geological map of North America; on the geological resources and ideas of revolutionary America; on the philosophical analysis of the theory of continental drift; the Canadian and the United States Federal and State geological surveys and their personnel; bibliographic resources and early attitudes toward geologic surveys; the development of paleontology and the great dinosaur expeditions of the last century; Louis Agassiz' anti-evolutionist notes; personalities and groupings of geologists in the 18th and 19th centuries; major American geological ideas and the influence of geodesy and the earth sciences on the American polymath C.S. Peirce. Scholars were on hand with slides, films and literature representing the historical-geological collections of the Hoover Library at Stanford University, the new history of science program of the United States Geological Survey, the program of restoration of the New Harmony, Indiana utopian community, and the history of geology program of the Open University of Edinburgh.

Sharp differences of opinion on such topics as the suitability of analogies with physics and physical models in the analysis of the development of geology provoked lively and even heated debate. Surprisingly, battle lines were drawn as frequently between conferees of the same disciplines, as between geologists and historians with accusations of whiggishness flying back and forth. Editors, reviewers and critics took their lumps as accounts of the less than perceptive reception of pioneering papers--on drift for example--were traded. The theory of the Hungarian as stochastic element in history, although advanced at more or less regular intervals through the four days, was not necessarily endorsed by the Conferees.

The discussions were not confined to the scheduled sessions held in the handsome Perrera-designed New England Center of the University of New Hampshire, but continued over meals and at a series of receptions. The usually unpredictable New England weather

was ideal for a day in the field billed as a Geo-foliage excursion and skimming the New England coast from the dunes at Plum Island and the McIntyre houses of Newburyport's High Street to the conically layered gabbro at Nubble Light and the primary structures Lower Paleozoic metasediments of Bald Head Cliff.

During the four days the visitors also had a chance to sample local crustacea and mollusea and to see the colonial restoration at Portsmouth. The end of the Conference found nearly all participants still on their feet and in good voice and better spirits. The visitors and their hosts at Durham separated with enthusiasm about the Conference and their future plans.

The meeting was convened at Durham on behalf of the U.S. National Committee on the History of Geology. The Geological Society of America and the History of Science Society cooperated in sponsoring the program which was supported in part by the National Science Foundation. The Conference was held in celebration of the national birthday and to produce a permanent commemorative of 200 years of geology in America. Plans are underway for publication of a Bicentennial Commemorative volume to incorporate the papers as revised in the light of the discussions. The volume will be announced as soon as it is published. Unfortunately, supplies of preprints are exhausted.

A similar interdisciplinary Conference on the History of Geology held at Rye Beach, New Hampshire in 1967 led to the publication in 1969 of 25 discussion papers from France, England, Germany, the Soviet Union and all parts of the United States under the title "Toward a History of Geology" (M.I.T. Press).

REPORT ON ROCKEFELLER ARCHIVE CENTER HILLCREST CONFERENCE
(NORTH TARRYTOWN, NEW YORK, DECEMBER 10, 1976)

A conference entitled "Trends in Biomedical Research, 1901-1976" was held at the Rockefeller Archive Center, North Tarrytown, New York, December 10, 1976. Its purpose was to examine the developments in biomedical research at the Rockefeller Institute for Medical Research and Rockefeller University between 1901 and 1976. Professor Joseph S. Fruton (Yale University) served as moderator. The program consisted of the following speakers and papers: (1) Robert S. Morison (Massachusetts Institute of Technology), "Frederick T. Gates, and the Purposes of Research at the Rockefeller Institute"; (2) Saul Benison (University of Cincinnati), "Historical Aspects of Clinical Research at the Rockefeller Institute before 1939"; (3) Abner McGehee Harvey (Johns Hopkins University), "Rufus Cole and the Role of the Rockefeller Hospital in Clinical Investigation"; (4) Michael Heidelberger (New York University), "From Laboratory to Clinic"; (5) Pauline Mazumdar (University of Toronto), "Karl Landsteiner and his colleagues"; (6) Maclyn McCarty (Rockefeller University), "Naval Reserve Unit I, Wartime Research at the Rockefeller Hospital"; (7) Edward H. Ahrens, Jr., (Rockefeller University), "Changing Patterns in Clinical Investigation"; and (8) Attallah Kappas (Rockefeller University), "The Hospital's Role Today and Tomorrow."

GRADUATE STUDIES AT THE INSTITUT D'HISTOIRE ET DE SOCIOPOLITIQUE
OF THE UNIVERSITE DE MONTREAL

The Institut d'histoire et de sociopolitique des sciences of the Université de Montréal has inaugurated a program leading to the Ph.D. degree in the history and sociopolitics of science. The course of study is two years for students who have already completed the M.Sc. or M.A. degree, or its equivalent, in a related field. A dozen students from Canada and several foreign countries are now pioneering the innovative program that integrates the history, sociology, and politics of science. Doctoral seminars are interdisciplinary and are taught collectively by experts in several fields. The program is designed to train graduates for careers in government and industry, as well as in more traditional academic settings. For further information, write to Le Directeur, Institut d'histoire et de sociopolitique des sciences, Université de Montréal, c.p. 6128, succursale A, Montréal, P.Q. H3C 3J7, Canada.

GUIDE TO BORIS P. BABKIN PAPERS AVAILABLE

Two graduate students at McGill University have prepared a thirty-seven page "Guide to the Papers of Boris P. Babkin." Babkin (1877-1950) was a physiologist who was also the student and biographer of Ivan P. Pavlov. The Babkin Papers, now housed in the Osler Library, consist of lecture notes, papers, and reprints in psychology; correspondence with Pavlov and his family; photographs, facsimiles, and papers used in writing Pavlov: A Biography (Chicago: University of Chicago Press, 1949); and a typescript of the biography. Free copies are available from Philip M. Teigen, Osler Library, McIntyre Medical Centre, McGill University, Montreal, Quebec H3G 1Y6, Canada.

VIDEOTAPE INTERVIEW WITH A.O.C. NIER AVAILABLE

An extensive videotape interview (five fifty-minute cassettes) with A.O.C. Nier, Regents' Professor of Physics, University of Minnesota, conducted by Roger H. Stuewer and Walter H. Johnson, Jr., will be available for rental in the near future. Please direct all inquiries to Mr. Donald Cain, Audio-Visual Library, University of Minnesota, 3300 University Avenue S.E., Minneapolis, Minnesota 55455.

NATIONAL ARCHIVES ACCESSIONS

The National Archives recently accessioned a group of computer files created by NSF between 1954 and 1971 which contain considerable information about American scientists in that period. These files include The National Engineers Register for 1964, 1967, and 1969; The National Register of Scientific and Technical personnel for 1954, 1958, 1960, 1962, 1964, 1966, 1968, and 1970; and The Employment Survey for Scientists and Engineers, 1971. For further information, please write to Charles Gellert, Machine-Readable Archives Division (NNR), National Archives and Records Service, Washington, D.C. 20408.

SPECIAL PHILOSOPHY OF SCIENCE ISSUE PLANNED ON VALUE ISSUES IN SCIENCE, TECHNOLOGY, AND MEDICINE

Professor Kenneth F. Schaffner, Editor-in-Chief of Philosophy of Science, wishes to announce a special issue of the journal. The special number, tentatively scheduled for December 1977, will be devoted to "Value Issues in Science, Technology, and Medicine." This theme will be broadly interpreted to include, for example, the relations of value theory and science, analyses of the aims and goals of science, decision-theoretic inquiries into utilities (especially epistemic utilities), value components of paradigms (or theories), philosophy of technology assessment, and those ethical and value aspects of medicine closely associated with medicine's scientific base. Contributors should follow standard instructions for submissions printed inside the back cover of the March 1976 issue of the journal. Essays must be received no later than May 1, 1977, to permit time for review. Manuscripts should be sent to Professor Kenneth F. Schaffner, 314 Loeffler Building, Department of History and Philosophy of Science, University of Pittsburgh, Pittsburgh, Pennsylvania 15260.

HISTORY OF ORNITHOLOGY IN THE WESTERN HEMISPHERE

The American Ornithologists' Union is sponsoring the publication of a book on the history of ornithology in the western hemisphere to honor its centennial in 1983. The work of ornithologists from all parts of the world in North and South America, Hawaii, and the waters between the southern tip of South America and Antarctica, and the work of Americans in those regions and elsewhere since 1492 will be included. A Centennial History Committee, with Professor Keir B. Sterling, Pace University, Pleasantville, New York, and Dr. Richard C. Banks, U.S. Fish and Wildlife Service, as Cochairmen is in process of being organized. Professor Sterling will be the author of the book, and anyone interested in contributing information for this work is asked to communicate with him.

NEW REPRINT SERIES IN NATURAL HISTORY

Arno Press of New York City will be publishing Biologists and Their World, a multi-volume series of reprinted books, monographs, journal articles and other materials dealing with the herpetology, entomology, botany, mammalogy and ornithology of Europe and America later this year. This collection will complement an earlier series, Natural Sciences in America, published in 1974. The advisory editor for both series is Professor Keir B. Sterling, Pace University, Pleasantville, New York. For further information, please write to Arno Press, 3 Park Avenue, New York, New York 10016.

ANNALI DELL'ISTITUTO E MUSEO DI STORIA DELLA SCIENZA DI FIRENZE

On January 1, 1976, the Institute and Museum of the History of Science began publishing the new journal, Annali dell'Istituto e Museo di Storia della Scienza di Firenze, the historical successor to the Annali del Museo Imperiale di Fisica e Storia Naturale di Firenze published from 1808-1810. The new Annali will be issued semi-annually, free to Friends of the Institute and Museum of the History of Science or to subscribers for \$25. Address inquiries to the Istituto e Museo di Storia della Scienza di Firenze, Piazza dei Giudici, 1, 50122 Firenze, Italy.

ENVIRONMENTAL REVIEW

Environmental Review, a journal combining the humanities and environmental science, began publication in November, 1976. Emphasis is placed upon an historical and cross-disciplinary approach towards the relation between man and nature. Publication will be under the auspices of the new American Society for Environmental History. Manuscripts may be submitted to Professor John Opie, Editor, Department of History, Duquesne University, Pittsburgh, Pennsylvania 15219. Books for review, and book reviews, should be sent to Professor Kent Shifferd, History/Environmental Studies, Northland College, Ashland, Wisconsin 54806. Shorter notes, news items, and reports on significant meetings should be submitted to Professor Roderick French, Department of Philosophy, George Washington University, Washington, D.C. 20052. Charter Subscriptions, including membership in the Society, for three issues (Fall, Winter, Spring) are Individual: \$11.00; Institutional: \$15.00; and Student: \$8.00. Send subscriptions to Environmental Review, College Hall, Duquesne University, Pittsburgh, Pennsylvania 15219.

VICTORIAN STUDIES BULLETIN

The Victorian Studies Bulletin is an international, interdisciplinary journal serving as a clearinghouse of information for people interested in Victorian Britain. For a free sample copy of the first issue and subscription information, write to Victorian Studies Bulletin, Lynne Sacher, Editor, 820 West End Avenue, New York, New York 10025.

BOOKS RECEIVED BY ISIS: SEPTEMBER-OCTOBER 1976

William Sims Bainbridge, The Spaceflight Revolution. A Sociological Study. x + 294 pp., tpls., bibl., index. New York: John Wiley, 1976. \$16.95.

Peter Baldry, The Battle Against Bacteria: A Fresh Look. A history of man's fight against bacterial disease with special reference to the development of antibacterial drugs. xii + 179 pp., 61 illus., name index, subject index. Cambridge/New York: Cambridge University Press, 1976. \$9.95.

Norman L. Biggs; E. Keith Lloyd; Robin J. Wilson, Graph Theory 1736-1936. xi + 239 pp., illus., bibl., index. Oxford: Clarendon Press; New York: Oxford Univ. Press, 1976. \$21.

Stanley A. Blumberg; Gwinn Owens, Energy and Conflict: The Life and Times of Edward Teller. xviii + 492 pp., illus., index. New York: Putnam's, 1976. \$12.95.

Peter Borscheid, Naturwissenschaft, Staat und Industrie in Baden (1848-1914). (Industrielle Welt, Band 17.) 242 pp., index. Stuttgart: Ernst Klett Verlag, 1976. DM 39 (paper).

Peter J. Bowler, Fossils and Progress. Paleontology and the Idea of Progressive Evolution in the Nineteenth Century. viii + 191 pp., illus., bibl., index. New York: Science History Publications, 1976. \$9.95.

Gert H. Brieger (ed.), Theory and Practice in American Medicine. Historical Studies from the Journal of the History of Medicine and Allied Sciences. xv + 272 pp. New York: Science History Publications, 1976. \$12 (cloth), \$4.95 (paper).

Lucas N. H. Bunt; Phillip S. Jones; Jack D. Bedient, The Historical Roots of Elementary Mathematics. xiii + 299 pp., illus., index. Englewood Cliffs, N. J.: Prentice-Hall, 1976. \$11.95.

Paul F. Cranefield, Claude Bernard's Revised Edition of His Introduction à l'étude de la médecine expérimentale. (The History of Medicine Series, Number 48.) xii + 163 pp. New York: Science History Publications, 1976. \$30 (\$25 prepaid).

Franco Crispini, Metafisica del senso e scienze della vita - Tommaso Cornelio. (Collana La Spirale, 28.) 173 pp., name index. Naples: Guida Editori, 1975. 4,000 lire (paper).

Glyn Daniel, A Hundred and Fifty Years of Archaeology. (First edition, 1950.) 410 pp., bibl., glossary, index. Cambridge, Mass.: Harvard Univ. Press, 1976. \$15.

David O. Edge; Michael J. Mulkay, Astronomy Transformed. The Emergence of Radio Astronomy in Britain. (Science, Culture, and Society: A Wiley-Interscience Series.) xvi + 482 pp., apps., subject index, name index. New York: John Wiley + Sons, 1976. \$25.

Jan Ehrenwald (ed.), History of Psychotherapy: From Healing Magic to Encounter. 589 pp., bibl., index. New York: Jason Aronson, 1976.

Allan Franklin, The Principle of Inertia in the Middle Ages. xiv + 119 pp. Boulder: Colorado Associated Universities Press, 1976. \$2.95 (paper).

Galenus Latinus. Vol. I: Burgundio of Pisa's Translation of Galen's ΠΕΡΙΚΡΑΣΕΩΝ. "De complexionibus." Ed. with intro. and indices by Richard J. Durling. (Ars Medica, II. Abteilung Griechisch-lateinische Medizin, Band 6, 1.) xxxii + 198 pp., 3 indexes. Berlin/New York: Walter de Gruyter, 1976. DM 148.

Galileo against the Philosophers in his Dialogue of Cecco di Ronchitti (1605) and Considerations of Alimberto Mauri (1606). In English translations with Introductions and Notes by Stillman Drake. xvii + 152 pp., bibl., index. Los Angeles: Zeitlin + Ver Brugge, 1976. \$32.50.

George E. Gifford, Jr. (ed.), Physician Signers of the Declaration of Independence. 164 pp., illus., index. New York: Science History Publications, 1976. \$10.

A. Rupert Hall; Norman Smith (eds.), History of Technology. First Annual Volume, 1976. vii + 186 pp. London: Mansell, 1976. \$22.50 (Distributed in the U.S. by International Scholarly Book Services, P.O. Box 555, Forest Grove, Ore.).

D. H. Hall, History of the Earth Sciences during the Scientific and Industrial Revolutions, with Special Emphasis on the Physical Geosciences. xi + 297 pp., bibl., index. Amsterdam/Oxford/New York: Elsevier, 1976. Dfl. 50; \$19.25 (paper).

F. R. Jevons, Knowledge and Power: Lectures by F. R. Jevons. Ed. by C. E. West. vii + 111 pp., index. Canberra: Australian National University Press, 1976. US \$8.70 (paper).

Yabuuti Kiyoshi (ed.), Chūgoku no kagaku (Chinese science). (Sekai no meicho (Great books of the world), Supplementary Series, 1.) 506 pp. Tokyo: Chūō kōron sha, 1975. Y 1500 = \$5.20.

Imre Lakatos, Proofs and Refutations. The Logic of Mathematical Discovery. Ed. by John Worrall and Elie Zahar. xii + 174 pp., bibl., name and subject indexes. Cambridge/New York: Cambridge Univ. Press, 1976. \$19.50 (cloth), \$4.95 (paper).

Milton Lomask, A Minor Miracle: An Informal History of the Natural Science Foundation. x + 285 pp., index. Washington, D. C.: National Science Foundation, 1976. \$2.75 (paper). Order from the Government Printing Office.

Russell McCormach (ed.), Historical Studies in the Physical Sciences. Annual Volume 7. xxxv + 489 pp. Princeton: Princeton Univ. Press, 1976. \$28.50.

Northwest Botanical Manuscripts. An Indexed Register of the Papers, 1867-1957, of Wilhelm Nikolaus Suksdorf, William Conklin Cusick, Charles Vancouver Piper, Rolla Kent Beattie, and Harold St. John in the Washington State University Library. 62 pp., 8 illus.,

correspondence index. Pullman: Washington State University Library, 1976.

Optische Lehre und Forschung im frühen 17. Jahrhundert, dargestellt vornehmlich an den Arbeiten des Joachim Jungius. Dissertation zur Erlangung des Doktorgrades des Fachbereichs Mathematik der Universität Hamburg. x + 686 pp., bibl., index. Hamburg: Karl Meyer, no date.

Charles S. Peirce, The New Elements of Mathematics. 3 vols. Ed. by Carolyn Eisele. Vol. I: Arithmetic. xi + 260 pp., frontis., apps., name and subject indexes. \$29.50. Vol. II: Algebra and Geometry. xxxi + 672 pp., frontis., apps., name and subject indexes. \$76. Vol. III/1: Mathematical Miscellanea. xxxix + 764 pp., frontis. Vol. III/2: Mathematical Miscellanea. pp. 765-1153, frontis., apps., name and subject indexes. \$128. The Hague/Paris: Mouton: Atlantic Highlands, N.J.: Humanities Press, 1976.

Karl Popper, Unended Quest: An Intellectual Autobiography. 255 pp., notes, bibl., index. La Salle, Ill.: Open Court, 1976. \$2.95 (paper).

The Various and Ingenious Machines of Captain Agostino Ramelli. Trans from the Italian and French with a biographical study of the author by Martha Gnudi. Technical annotations and a pictorial glossary by Eugene S. Ferguson. 604 pp., 195 plates, glossary, bibl., index. London: Scholar Press; Baltimore: Johns Hopkins University Press, 1976. \$100.

Duane H. D. Roller; Marcia M. Goodman, The Catalogue of the History of Science Collections of the University of Oklahoma Libraries. Vol. I: A-I. xii + 584 pp. Vol. II: J-Z. 608 pp. London: Mansell, 1976. £90; \$180.

Paolo Rossi, Francesco Bacone, Dalla Magia alla Scienza. xxxvi + 366 pp. Turin: Einaudi, 1974. 2,800 lire (paper).

Hunter Rouse, Hydraulics in the United States 1776-1976. ix + 238 pp., illus., index. Iowa City: Institute of Hydraulic Research, University of Iowa, 1976.

Kenneth Sayre, Cybernetics and the Philosophy of Mind. (International Library of Philosophy and Scientific Method.) xiii + 265 pp., bibl., index. Atlantic Highlands, N.J.: Humanities Press, 1976. \$15.75.

Frederick Suppe; Peter D. Asquith (eds.), PSA 1976. Proceedings of the 1976 Biennial Meeting of the Philosophy of Science Association. Vol. I: Contributed Papers and Special Sessions. xxiv + 312 pp. East Lansing, Mich.: Philosophy of Science Association, 1976. \$8.50 (cloth), \$5 (paper).

A. Landsborough Thomson, Half a Century of Medical Research. Vol. II: The Programme of the Medical Research Council (UK). xii + 402 pp., 12 illus., apps., bibl., name index, subject index. London: Her Majesty's Stationery Office, 1975. £10.

BOOKS RECEIVED BY ISIS: NOVEMBER-DECEMBER 1976

G. C. Ainsworth, Introduction to the History of Mycology. xi + 359 pp., 106 illus., bibl., name and subject indexes. Cambridge/New York: Cambridge Univ. Press, 1976. \$27.50.

R.G.W. Anderson; A.D.C. Simpson (eds.), The Early Years of the Edinburgh Medical School. A Symposium jointly organised by the Royal Scottish Museum and The Scottish Society of the History of Medicine in connection with the special exhibition 'Edinburgh and Medicine' and the 250th Anniversary of the Foundation of the Faculty of Medicine of the University of Edinburgh. Held in the Royal Scottish Museum, Edinburgh, on 26th June 1976. viii + 124 pp. Edinburgh: The Royal Scottish Museum, 1976. £3 (paper).

R.G.W. Anderson; A.D.C. Simpson, Edinburgh and Medicine. A Commemorative Catalogue of the Exhibition held at the Royal Scottish Museum, Edinburgh, June 1976-January 1977 to mark the 250th Anniversary of the Foundation of the Faculty of Medicine of the University of Edinburgh, 1726-1976. vii + 72 pp., 25 illus. Edinburgh: The Royal Scottish Museum, 1976. £1.75 (paper).

Aristotle's Metaphysics, Books M and N. Trans. with Intro. and Notes by Julia Annas. (Clarendon Aristotle Series.) 227 pp., bibl., gloss., index. Oxford: Clarendon Press; New York: Oxford Univ. Press, 1976. £6.25; \$13.

James R. Averill, Patterns of Psychological Thought: Readings in Historical and Contemporary Texts. (The Series in Clinical and Community Psychology.) xii + 603 pp., name and subject indexes. New York: Halsted Press, 1976. \$22.50.

R. Baker, New and Improved . . . Inventors and Inventions That Have Changed the Modern World. (The Science Reference Library.) 168 pp., illus., indexes. London: British Museum Publications, 1976. £3.50.

Philip L. Bereano (ed.), Technology as a Social and Political Phenomenon. viii + 544 pp. New York: John Wiley, 1976. \$13.95.

Richard Berendzen; Richard Hart; Daniel Seeley, Man Discovers the Galaxies. x + 228 pp., illus., bibl., index. New York: Science History Publications, 1976. \$15.95 (cloth), \$6.95 (paper).

Axel Anton Björnbo, Die mathematischen S. Marcohandschriften in Florenz. Nuova edizione a cura di Gian Carlo Garfagnini, con una premessa di Eugenio Garin. (Quaderni di Storia e Critica della Scienza, Nuova Serie, 8.) xviii + 163 pp., indexes. Pisa: Domus Galilaeana, 1976.

Niels Bohr, Collected Works. General editor, L. Rosenfeld. Vol. 3: The Correspondence Principle (1918-1923). Ed. J. Rud Nielsen. xii + 702 pp., index. Amsterdam/New York/Oxford: North-Holland, 1976. Dfl 275; \$105.95.

Joseph H. Boyes, On the Shoulders of Giants: Notable Names in Hand Surgery. xii + 222 pp., illus., index. Philadelphia: Lippincott, 1976. \$20.

Stephen G. Brush, The Kind of Motion We Call Heat: A History of the Kinetic Theory of Gases in the 19th Century. (Studies in Statistical Mechanics, Vol. VI.) Vol. I: Physics and the Atomists. xxxix + 300 pp., illus., index. Vol. II: Statistical Physics and Irreversible Processes. xxxix + pp. 301-769, bibl., index. Amsterdam/New York/Oxford: North-Holland, 1976. \$83.95; Dfl. 210.

Fred M. Bullard, Volcanoes of the Earth. Revised edition. 579 pp., illus., glossary, bibl., index. Austin: Univ. of Texas Press, 1976. \$26.95. (The introductory chapters include a history of volcanology.)

J. L. Cloudsley-Thompson, Insects and History. 242 pp., 35 illus., bibl., index. New York: St. Martin's Press, 1976. \$18.95.

Patrick Collard, The Development of Microbiology. vii + 201 pp., illus., name and subject indexes. Cambridge/New York: Cambridge Univ. Press, 1976. \$15.95.

Copernicus: On the Revolutions of the Heavenly Spheres. A new translation from the Latin, with intro. and notes, by A. M. Duncan. 328 pp. London: David and Charles; New York: Barnes and Noble, 1976. \$26.50.

David R. Drew, Science Development: An Evaluation Study. A Technical Report presented to the National Board on Graduate Education. (Technical Report Number Four.) xvi + 183 pp. Washington, D.C.: National Academy of Sciences, 1975 (paper).

René J. Dubos, The Professor, the Institute, and DNA. Oswald T. Avery, His Life and Scientific Achievements. 238 pp., 21 illus., chronology, apps., index. New York: Rockefeller Univ. Press, 1976. \$14.50.

The Autobiography of John Fitch. Ed., with Intro. and Notes by Frank D. Prager. (Memoirs of the American Philosophical Society, Vol. 113.) 215 pp., 15 illus., index. Philadelphia: American Philosophical Society, 1976. \$7 (paper).

Tore Frängsmyr, Upptakten av istiden. Studier i den moderna geologins framväxt. [The Discovery of the Ice Age] (Lychnos-Bibliotek, 29.) 188 pp., bibl., index, English summary. Stockholm: Almqvist + Wiksell, 1976.

Clive E. Handler (ed.), Guy's Hospital, 250 Years. vi + 232 pp., illus. London: Guy's Hospital Gazette, 1976. £2 (paper).

Michael E. Hoare, The Tactless Philosopher: Johann Reinhold Forster (1729-1798). x + 419 pp., apps., illus., bibl., index. Melbourne (Australia): The Hawthorn Press, 1976. \$15.95.

ISIS Cumulative Bibliography. A Bibliography of the History of Science formed from ISIS Critical Bibliographies 1-90, 1913-1965. Ed. Magda Whitrow. Vol. III: Subjects. xciv + 678 pp. London: Mansell, 1976. £28; \$56. (Available in North America from Mansell, 22 South Broadway, Salem, NH 03079.)

Saul Jarcho (ed.), Essays on the History of Medicine. Selected from the Bulletin of the New York Academy of Medicine. (The History of Medicine Series, 47.) xi + 446 pp., illus., index. New York: Science History Publications, 1976. \$15.

Robert Kilwardby, O.P., De Ortu Scientiarum. Ed. by Albert G. Judy, O.P. (Auctores Britannici Medii Aevi, IV.) lxi + 255 pp., indexes, bibl. In Latin. London: The British Academy; Toronto: Pontifical Institute of Mediaeval Studies, 1976. £18.

Chang Kwang-Chih, Early Chinese Civilization. Anthropological Perspectives. (Harvard-Yenching Institute Monograph Series, Vol. 23.) xv + 229 pp., 21 illus., bibl., glossary, index. Cambridge, Mass./London: Harvard University Press, 1976. \$12.50.

Hermann Lampe, Die Entwicklung und Differenzierung von Fachabteilungen auf den Versammlungen von 1828 bis 1913. Bibliographie zur Erfassung der Sektionsvorträge mit einer Darstellung der Entstehung der Sektionen und ihrer Problematik. (Schriftenreihe zur Geschichte der Versammlungen deutscher Naturforscher und Ärzte, Band II.) viii + 301 pp., index. Hildesheim: Verlag Dr. H. A. Gerstenberg, 1975. DM 98.

Lyell Centenary Issue. Papers delivered at the Charles Lyell Centenary Symposium, London 1975. (The British Journal for the History of Science, July 1976, Vol. IX, Pt. 2, No. 32.) pp. 91-242. Ashford, Kent: Headley Brothers, The Invicta Press, 1976. £4; \$12.

Ernst Mayr, Evolution and the Diversity of Life. Selected Essays. ix + 721 pp., index. Cambridge, Mass./London: Belknap Press of Harvard Univ. Press, 1976. \$20.

Patrick Moore, Comets: An Illustrated Introduction. x + 149 pp., illus., tpls., glossary, index. New York: Scribner's, 1976. \$7.95.

R. J. Morris, Cholera 1832: The Social Response to an Epidemic. 228 pp., bibl., index, maps. New York: Holmes and Meier, 1976. \$16.

Joseph N. Nicollet on the Plains and Prairies. The Expeditions of 1838-39 With Journals, Letters, and Notes on the Dakota Indians. Trans. from the French and ed. by Edmund C. Bray and Martha Coleman Bray. 294 pp., index. St. Paul: Minnesota Historical Society Press, 1976. \$14.50.

D. C. Phillips, Holistic Thought in Social Science. vii + 149 pp., bibl., index. Stanford, Calif.: Stanford Univ. Press, 1976. \$8.50.

Albrecht Quentin, Naturkenntnisse und Naturanschauungen bei Wilhelm von Auvergne. (Arbor Scientiarum, Beiträge zur Wissenschaftsgeschichte, Reihe A: Abhandlungen, Band V.) xiv + 167 pp., bibl., index. Hildesheim: Verlag Dr. H. A. Gerstenberg, 1976. DM 52.

Constance Reid, Courant in Göttingen and New York. The Story of an Improbable Mathematician. 314 pp., illus., index. New York/Heidelberg/Berlin: Springer-Verlag, 1976. \$12.80.

LOGAN CLENDENING TRAVELING FELLOWSHIP IN THE HISTORY OF MEDICINE

Applications are invited for the Logan Clendening Traveling Fellowship in the History of Medicine, which is tenable for three months during 1977. The Fellowship is for \$1,000 and is open to registered medical students (or college seniors accepted for medical school) of any recognized medical or osteopathic school in the United States or Canada. This Fellowship memorializes Dr. Logan Clendening (1884-1945), and will enable medical students to follow at least two or his abiding interests--travel and medical history. Applicants may elect to travel anywhere in the world for the purpose of studying any aspect of medical history of interest to them. The special application form, which must be returned not later than March 15, 1977, may be obtained from Robert P. Hudson, M.D., Chairman, Department of the History of Medicine, The University of Kansas Medical Center, Kansas City, Kansas 66103. Applicants will be notified of results by April 15, 1977.

REGIONAL ECONOMIC HISTORY RESEARCH PROGRAM

The Regional Economic History Research Center of the Eleutherian Mills-Hagley Foundation announces an interdisciplinary research program in the economic history of the Mid-Atlantic states, 1750-1850. The project will focus on the transition from the rural, agrarian, settlement era to the early phase of an industrial, urban society, paying particular attention to the social context and consequences of that transition. The Center invites the participation of economic, social, and intellectual historians, as well

as historians of science and technology, agriculture, labor, and others. In addition, the Center seeks interested scholars in other disciplines, such as economics, sociology, anthropology, and geography. Researchers will be in residence at the Eleutherian Mills Historical Library. Research stipends include Senior Postdoctoral Fellowships (maximum per academic year, \$20,000) and Junior Postdoctoral Fellowships (\$15,000 maximum). In addition, for both postdoctoral and predoctoral researchers, the Center offers grants for stays of less than one semester, as well as summer stipends. These grants are available from July 1, 1977, through June 30, 1980. This project is supported by a grant from the National Endowment for the Humanities. Applications may be submitted at any time after January 1, 1977, but those wishing to begin research before October 1977 should complete the application process by April 15, 1977. For additional information about the Center and its program, and for fellowship application forms, write to Glenn Porter, Director, Regional Economic History Research Center, Eleutherian Mills-Hagley Foundation, Greenville, Wilmington, Delaware 19807.

ASSISTANTSHIPS IN M.S. PROGRAM IN SCIENCE, TECHNOLOGY AND VALUES
AT RENSSELAER POLYTECHNIC INSTITUTE

The Center for the Study of the Human Dimensions of Science and Technology at Rensselaer Polytechnic Institute is accepting applications for Fall 1977 admission to its interdisciplinary Master of Science program in Science, Technology and Values. Students can design individualized pre-Ph.D. curricula from among more than two dozen courses in the areas of the history of science and technology, philosophy of science, sociology of science, sociology of medicine, biomedical ethics, economics of science and technology, history and philosophy of mathematics, and science policy. Terminal degree curricula can be developed in four major areas of concentration: Human Values, Management Communications, Socio-Economic Processes, and the Social Context of Science and Technology. Applicants must hold a B.S. or B.A. degree with a minimum of 30 semester credits in engineering, or physical, biological, or social science. Applications for teaching or research assistantships must be received by March 1, 1977. For more information and application forms, write to Professor Robert Baum, Director, Human Dimensions Center, Rensselaer Polytechnic Institute, Troy, New York 12181. R.P.I. is an equal opportunity/affirmative action employer.

FELLOWSHIPS AND GRANTS RECEIVED

The National Science Foundation awarded research grants in the History and Philosophy of Science between July 1975 and September 1976 which included the following: (1) A.E. Shapiro (University of Minnesota), "Origins and Development of the Modern Atomic Theory of Light"; (2) D.H. Hall (Boston University), "Endocrinology, 1890 to 1930: Scientific Development And Social Ramifications"; (3) N. Reingold (History of Science Society), "Symposium on the Sciences in America: A Bicentennial Retrospective to be held in Boston Massachusetts during February 1976"; (4) G.E. Allen (Washington University), "The Use and Misuse of Scientific Research: The Case of Genetics and Eugenics in the United States"; (5) H. Hoagland and J. Reed (American Academy of Arts and Sciences), "Conferences on the Scientific Study of Population Dynamics in the United States to be held in Boston in March and October, 1977"; (6) R.S. Cowan (SUNY, Stony Brook), "The Impacts of Technology on Society: The Case of Household Technology in the United States, 1900 to 1950"; (7) C. Gillmor (Wesleyan University), "A Study of the History of Ionospheric Physics"; (8) S. Weart and J.N. Warnow (American Institute of Physics), "Documentation of the Revolution in Astrophysics and a History of Contemporary Cosmology"; (9) E.T. Layton (University of Minnesota), "The Interaction of Science and Technology in 19th-Century America"; (10) M.A. Finocchiaro (University of Nevada), "A Case Study of Logic and Scientific Rationality"; (11) A.I. Fine (University of Illinois, Chicago Circle), "Einstein's Interpretation of Quantum Theory and its Implications for Contemporary Issues in the Foundations of Physics"; (12) M.M. Sokal (Worcester Polytechnic Institute), "Preparation of A Critical Edition of James McKeen Cattell's European Papers"; (13) J.T. Edsall and W.J. Bell (American Academy

of Arts and Sciences), "Survey of Sources for the History of Biochemistry and Molecular Biology"; (14) G. B. Kauffman (California State University, Fresno), "Science, Industry, Government and Society: The Case of Emil Fischer"; (15) J.M. Perkins (Miami University), "Innovations in Applied Etymology: A Study of Cultural Influences on Technological Development"; (16) W.T. Sullivan (University of Washington), "A History of Radio Astronomy"; (17) M.B. Adams (University of Pennsylvania), "Evolution and Genetics in Post-Revolutionary Russia, 1917-1930"; (18) M.P. Winsor (American Academy of Arts and Sciences), "The Institutionalization of Biological Sciences in America: A Case Study"; (19) R.S. Westman (University of California, Los Angeles), "Scientific Generation and Innovation: The Diffusion of Scientific Theories"; (20) P.K. Feyerabend (University of California, Berkeley), "Scientific Change"; (21) D.P. Jones (Oregon State University), "American Chemists and the Geneva Protocol"; (22) E.C. Moore (Indiana University), "Preparation of a Chronological and Annotated Edition of the Writings of Charles S. Peirce"; (23) F. Burkhardt (American Council of Learned Societies), "Definitive Edition of Charles Darwin Correspondence"; (24) J. Stachel (Boston University), "Quantum Logical Approaches to the Interpretation of Quantum Mechanics"; (25) Woodruff T. Sullivan, III (University of Washington), "A History of Radio Astronomy"; (26) Dudley Shapere (University of Maryland), "Observation, Theory and Objectivity in Science"; (27) Richard Schallenberg (Virginia Polytechnic Institute), "A History of the Electric Battery: A Case Study in Technological Innovation"; (28) Martin Schagrin (SUNY, Fredonia), "The Pressure of Light: A Case Study"; (29) James McGuire (University of Pittsburgh), "The Concept of Absolute Space and Time in the Development of Physics"; (30) Wilhelm Magnus (with Bruce Chandler) (Polytechnic Institute of New York), "Development of Combinatorial Group Theory"; (31) H. Kyburg and P. Asquith (Philosophy of Science Association), "Research Problems in the Philosophy of Science"; (32) Gerald Holton (Harvard), "Thematic Analysis as a Technique in Historical Studies of Science"; (33) O. Gingerich and David King (American Research Center in Egypt), "Arabic Contributions to the Development of the Exact Sciences"; (34) Arthur Donovan (University of West Virginia), "The Development of Modern Geology"; (35) Herbert Bailey (Princeton University Press), "Preliminary Editing of the Correspondence of A. Einstein."

In addition, the following students received NSF support for their doctoral dissertation research: James E. Force (Washington University) and James Maienschein (Indiana University).

Warren Van Egmond (Indiana University) has been awarded a NATO Postdoctoral Fellowship in Science for 1977-78 in order to conduct research on a proposed biography of François Viète and prepare an English translation of his mathematical works. He will work in association with the Centre Alexandre-Koyré, École Pratique des Hautes Études, in Paris.

AWARDS AND HONORS

Owen Gingerich (Harvard University) has been awarded the John F. Lewis prize of the American Philosophical Society in recognition of his paper "From Copernicus to Kepler: Heliocentrism as Model and as Reality," given at the American Philosophical Society Copernicus Symposium in April, 1973, and published in their Proceedings, volume 117, no. 6.

George B. Kauffman (California State University, Fresno) has been awarded the L. A. Chugaev jubilee diploma and bronze medal by the N. S. Kurnakov Institute of General and Inorganic Chemistry of the USSR Academy of Sciences for his scholarly work on the chemistry of coordination compounds.

Ernst Mayr (Harvard University) has received an Alexander von Humboldt Award, which will allow him to be in residence at the University of Würzburg for six months (February to August, 1977), with side visits to Tübingen, Heidelberg, Frankfurt, Regensburg, and other universities.

Jane M. Oppenheimer (Bryn Mawr College) has been given a Lindback Foundation Award for excellence in teaching by the Bryn Mawr Faculty. She also received an Honorary Sc.D. from Brown University in June.

APPOINTMENTS AND PROMOTIONS

William C. Eamon has been appointed Assistant Professor of History at New Mexico State University, Las Cruces, New Mexico.

Warren Van Egmond has been appointed Visiting Assistant Professor in the Department of History and Philosophy of Science at Indiana University for the Winter term, 1977.

Nathan Sivin has been appointed Professor of Chinese Culture and of the History of Science in the Department of Oriental Studies, with additional appointment in the Department of the History and Sociology of Science, at the University of Pennsylvania, effective July 1, 1977.

DISSERTATIONS IN PROGRESS OR RECENTLY COMPLETED

Note: If available, please supply the Dissertation Abstracts reference number in the future when submitting announcements on dissertations completed.

Johns Hopkins University

Craig B. Waff, "Universal Gravitation and the Motion of the Moon's Apogee: The Establishment and Reception of Newton's Inverse-Square Law, 1687-1749" (completed; DAI 37/4, No. 76-22, 959).

Université de Montréal

Roger Bertrand, De la géographie des variétés de l'homme à la zoologie de l'espèce humaine. Etude de deux problématiques de l'anthropologie française, 1750-1930 (M.Sc., completed).

François Blanchard, "L'institution de la paléontologie au Muséum d'histoire naturelle de Paris en 1853" (M.Sc., completed).

Louise Dandurand, "Les congrès scientifiques internationaux: incidences sociologiques et politiques de leur distribution géographique (M.Sc., completed).

Raymond Duchesne, Le développement de la communauté scientifique québécois et ses relations avec le gouvernement provincial, 1920-1965 (M.Sc., completed).

Oregon State University

Margaret J. Clarke, "The Federal Government and the Fixed Nitrogen Industry, 1915-1926" (completed).

Oxford University

Elizabeth C. Patterson, "Mary Somerville and the cultivation of science: 1851-1840" (completed).

Alice T. Stroup, "Botanical research and its background at the 17th-century Académie Royale des Sciences" (completed).

Princeton University

Daniel Paul Serwer, "The Rise of Radiation Protection: Science, Medicine and Technology in Society, 1896-1935" (completed).

Yale University

Merriley Borell, "Origins of the Hormone Concept: Internal Secretions and Physiological Research, 1889-1905" (completed).

REQUEST FOR JOB INFORMATION

Individuals in colleges, universities, and other institutions having knowledge of possible or definite job openings are urged to relay such information to the Secretary of the Society, Dr. Roger H. Stuewer, as soon as possible for publication in the Newsletter. Such sharing of job information is consistent with the general sentiment that members of the HSS expressed on the desirability of open listing of available positions.

JOB OPENINGS

The positions listed below are new openings that have been brought to the attention of the Secretary. Other new openings should also be brought to his attention as soon as possible. All inquiries should be addressed to the institution having the opening, and only serious and qualified persons should apply. It is assumed that the positions listed are in fact open at the time of publication. The Society, however, can assume no responsibility for the accuracy or currency of the listing.

1. Auburn University, Auburn, Alabama 36830.

Position: Chairman, Department of History.

Description: Applicants for the chairmanship should possess appropriate qualifications at the Associate or Full Professor level, and have a strong background in teaching, research, and publication. Prior administrative experience is of course desirable, though not an absolute requirement. The salary offered will be commensurate with rank and qualifications. The deadline for applications is February 15, 1977.

Note: Auburn University is an Equal Opportunity/Affirmative Action Employer.

Contact: Sent vitae, three letters of recommendation, and reprints or other appropriate supporting materials to Professor W. David Lewis, Hudson Professor of History and Engineering, 7030 Haley Center.

2. Eisenhower College, Seneca Falls, New York 13148.

Description: The Division of Science and Mathematics of Eisenhower College will have an opening in the fall of 1977 for a historian of science who is also trained in chemistry. The duties of the new person will be to teach beginning chemistry, one advanced chemistry course, and to participate in an interdisciplinary general education program as a historian of science. It is necessary that the applicant be formally trained in the history of science, and it is desirable that she or he be capable of handling materials from the ancient and medieval period. Eisenhower College is a four-year liberal arts college located in the Finger Lakes region of New York State. The college emphasizes and appreciates excellence and experience in teaching.

Contact: Dr. Paul Curtis, Director of the Division of Science and Mathematics.

3. Virginia Polytechnic Institute and State University, Blacksburg, Virginia 24061.

Position: Rank and salary open. Appointment to become effective September 1, 1977.

Description: Permanent appointment in History of Science. The person selected will teach nine hours per quarter, basically in our three-quarter survey course in history of science. Biology is the most popular of the sciences here at Virginia Tech. While it would be preferable to hire an historian of science whose training and interests are biology-oriented, we do not insist on that criterion. Only applicants with the doctorate in hand will be considered.

Note: Virginia Tech is an Equal Opportunities/Affirmative Action employer.

Contact: Professor James I. Robertson, Jr., Head, Department of History.

4. Virginia Polytechnic Institute and State University, Blacksburg, Virginia 24061.

Position: Temporary one-year post in history of technology. Instructor or assistant professor level.

Appointment: to become effective September 1, 1977.

Description: The person selected will assist in our three-quarter course on History of Science. In addition, he or she can offer some specialized work in History of Technology, including offerings on the M.A. level. Preference will be given to applicants with the doctorate. Salary is competitive.

Note: Virginia Tech is an Equal Opportunities/Affirmative Action employer.

Contact: Professor James I. Robertson, Jr., Head, Department of History.

5. Center for History of Physics, American Institute of Physics, New York, New York 10017.

Description: An opening is available for a research fellow to work on a project to study documentation of postwar physics at government contract laboratories, in order to seek out and help preserve historically valuable records. The fellow will be employed for 10 months beginning fall of 1977 to conduct an in-depth study of records at Brookhaven National Laboratory. (Additional funding is being sought to extend the project.) The job involves working closely with administrators, scientists, archivists and others to survey existing records, study the history of the institution in order to identify gaps in the collection, analyze preservation procedures, and assist in considering procedures and guidelines for evaluating scientific records for use in historical research. The fellow will spend extensive periods working on-site at Brookhaven. We seek a historian or archivist with a physics background or a physicist with a history background. Experience in working with archival materials or scientific records would be valuable; a PhD is desirable. Salary will depend on qualifications. AIP is an equal opportunity employer. Those interested should send a vita and brief letter of application to Ms. Joan N. Warnow, Associate Director.



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