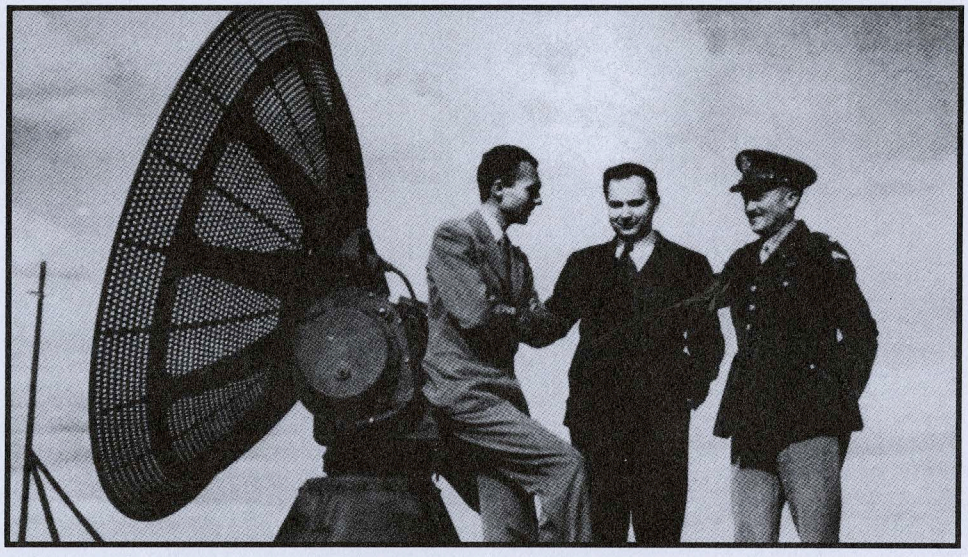
Center for the History of Electrical Engineering

Newsletter No. 27 Fall 1991

MIT's Radiation Laboratory: *An Oral-History Project*



L.L. Davenport, I.A. Getting, Col. A. H. Warner next to an SCR-584 antenna

In June 1940, as German armies raced through France forcing British withdrawal and French capitulation, Vannevar Bush received President Roosevelt's approval of a plan to coordinate civilian research for military ends. The resulting National Defense Research Committee (NDRC) selected, as one of its areas of concern, radio detection, limiting itself to detection using microwaves since longer-wave radar was already being developed by Army and Navy laboratories. In September 1940 a British scientific mission, headed by Henry Tizard, arrived in the United States with the newly invented cavity magnetron, a device for generating microwaves. Tizard's mission set in train the events that led to NDRC's establishment of an independent laboratory to develop microwave radar. The Massachusetts Institute of Technology was chosen as the site and 'Radiation Laboratory' as the deliberately misleading name.

From its establishment in November 1940 until the end of 1945, the Rad Lab made great contributions to radar technique and microwave theory. Military hardware, methods of air-traffic control, industrial production techniques, and even consumer products are all part of its legacy. Moreover, the story of the Rad Lab is an important part of any full account of the development of present relations between scientists, engineers, government officials, and the military. The success of the Rad Lab contributed to the great increase in the postwar decades of sponsored and mission-oriented research; indeed, the Rad Lab itself has served as a prototype of an institution for achieving rapid technological advance. And many of the Rad Lab alumni went on to careers in industry and academia and profoundly affected industrial research and science- and engineering-education.

The IEEE Microwave Theory and Techniques Society commemorated the 50th anniversary of the Rad Lab with special sessions at its annual meeting in Boston 11-14 June 1991, and more than one hundred Rad Lab alumni attended. The IEEE History Committee and the IEEE Center for the History of Electrical Engineering organized an oral-history project to take advantage of this exceptional opportunity to draw on the memories of people who worked at the Rad Lab. During the week of the MTT-S meeting, 39 Rad Lab alumni were interviewed. Three other interviews have already been conducted and more will be done in the coming months to bring the number of interviews to approximately 50.

The interviews have been directed toward particular issues that have up to now received little attention from historians and are poorly documented in existing archival materials. These issues include the international context for radar development (including the prewar work on radar in the United States and the British influence on the creation of the Rad Lab), the work of the Magnetron Group, the management and social organization of the Rad Lab, the relationship between the military and the Rad Lab and between industry and the Rad Lab, and the experience of women at the Rad Lab. Ken Bainbridge, Britton Chance, Lee Davenport, Ivan Getting, Ernest Pollard, Ed Purcell, Norman Ramsey, Helen Thomas, George Valley, and Jerome Wiesner are a few of the distinguished people already interviewed. The interviewers are James Brittain and John Bryant of the History Committee and William Aspray, Andrew Goldstein, and Frederik Nebeker of the Center for the History of Electrical Engineering.

The interviews will be fully transcribed and carefully edited, including editing by the interviewees. Abstracts and a cumulative index will be prepared, and the transcripts will be made available to researchers, including engineers, historians, journalists, and students.■

CENTER NOTES

Call For Photos

The Center, in order to increase its usefulness as a resource for photographs, is undertaking to expand its photo library. The collection, currently containing over 10,000 photos, includes shots of famous figures in electro-technology history and historical and contemporary electric and electronic apparatus. The Center annually receives numerous of requests from scholars and publishers to use images from the collection. It will be able to serve these interests better with a broader collection of images, culled from the scrapbooks of engineers involved with the development of new technologies. The Center will gladly consider any donation of photographs, color or black and white, that have subjects relating to electo-technology. Contact the Center for more information.

The Newsletter reports on the activities of the Center and on new resources and projects in electrical history. It is published three times each year by the Center for the History of Electrical Engineering.

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The Newsletter is made possible by a grant from the IEEE Foundation.

Electrical History Fellowship Offered

Applications are currently being accepted for the 1992-93 Fellowship in Electrical History. Funded by a grant from the IEEE Life Members Fund, the Fellowship is for either one year of full-time graduate work in the history of electrical science and technology at a college or university of recognized standing, or for up to one year of independent research for a recent Ph.D. graduate in the same field. The stipend is $14,000.

The Fellow is selected on the basis of a complete description of the proposed research, college transcripts, letters of recommendation, and additional information supplied on the application form. Students with undergraduate degrees in engineering as well as those having degrees in the sciences or humanities are invited to apply. The deadline for receipt of applications for the 1992-93 academic year is 1 February 1992. Application forms may be obtained from the Center for the History of Electrical Engineering.■

Graduate Assistants Appointed

The Center was fortunate to benefit from the service of Diane Sommerville as a graduate assistant during the past academic year. Diane left the Center in June to continue work on her Ph.D. dissertation. When the new academic year begins in September, two new graduate students of history, Jonathan Nashel and Eric Boyles, will each begin working fifteen hours a week at the Center. Nashel earned his BA in history from Grinnell College in 1983 and his MA, again in history, from Rutgers in 1988. He is writing his dissertation in the history of American foreign [olicy. Boyles is just beginning his graduate study of history. He completed his BS at the University of Wisconsin in December of 1990, writing a thesis that considered the social and political construction of technological systems in America in the late nineteenth century.■

The Institute for the History of Technology Publishes First Issue of Newsletter

The Institute for the History of Technology and Industrial Archaeology has begun issuing a newsletter. The first issue was mailed out in the spring with a cover date of Winter 1991. The eight-page newsletter describes the Institute, its programs and staff.

The Institute for the History of Technology was established in 1989 to support public and private programs and projects concerned with the history of technology, industrial archeology, and the preservation of engineering works. Supplementing the full time staff, which numbers nearly a dozen employees, are six graduate students of history at the University of West Virginia, with which the Institute shares a strong bond. The Institute seeks to publish significant project results in monograph form or as articles for journals in related fields.

The work of the History of Technology section of the Institute is focused on developing a history of American engineering as a background for specific historical studies of industry in the Appalachian region and beyond. The Preservation of Engineering Works section will eschew study of so-called "high style" and "architecturally significant" structures such as Mount Vernon or Monticello in favor of studying factories, transportation systems, worker housing, and other aspects of life directly related to the Industrial Revolution. Present projects include study to provide a historical context for the anticipated decline of the Northern West Virginia coal industry, producing measured drawings and restoration recommendations for the Historic Structure Report for the Chesapeake and Ohio Railroad and Passenger Depot, and preparing a nomination for the Vance Farm House for the National Register of Historic Places.■

SPEAKER'S BUREAU

Historical Speakers Bureau

The Center for the History of Electrical Engineering established the IEEE Historical Speakers Bureau in 1991. The primary purpose of this program is to make it easier for Sections, Chapters, and other IEEE entities to identify and locate qualified speakers on historical topics of interest to electrical engineering professionals and students. The program also enables the IEEE to spread the word about electrical engineering history outside its membership.

The speakers are professional historians or engineers who have volunteered their time to share their knowledge of history. Each of them has a strong knowledge in the area of electrical engineering history covered in their lecture. Effort is taken to provide speakers from many different technical subject areas and from many different geographic regions of the United States. If the program is successful in the United States, it will be expanded to other parts of the globe where there is IEEE activity.

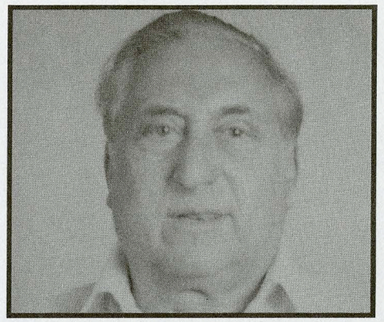
How The Bureau Works

Listed below are the speakers who have agreed to serve in 1991-92. If your IEEE organization is interested in scheduling a lecture, you should contact the speaker directly. The group sponsoring the lecture is responsible for the speaker's travel and per diem expenses. You may contact the speakers at any time, but we recommend booking three months in advance.

Organizations not affiliated with the IEEE also may use the Historical Speakers Bureau. However, they must first obtain the permission of the Center for the History of Electrical Engineering before contacting the individual speaker, and an honorarium is customary in these cases. (An honorarium is optional when the lecture is sponsored by an IEEE entity.)

In order for the Center to monitor the program, assure its quality, and better determine historical interests of IEEE members, we ask that each IEEE group that engages a speaker inform us of that fact. The Center would like to learn also about the attendance at each lecture and how it was received.

1991-92 Speakers



Albert Abramson is a television historian and consultant. He has published two books on the history of television, Electronic Motion Pictures (Berkeley: University of California Press, 1974; reprinted by Arno in 1974) and The History of Television, 1880-1941 (Jefferson: McFarland, 1987), and has just completed a biography entitled Vladimir K. Zworykin: Father of Television, His Life and Times, to be published in 1992. Following service in the U.S. Army Air Forces in World War II, Mr. Abramson attended the University of Southern California. Upon graduation, he joined the CBS Television Network in Hollywood in 1952 and spent the next 35 years as a television cameraman, video tape editor, and audio sound man, and worked on almost everything connected with the technical side of television. He retired in 1987. Mr. Abramson holds patents for three-dimensional television without glasses and for a super high brightness television projector that will project television pictures on a forty foot screen with motion picture brightness. Mr. Abramson has been a historical consultant to RCA, the Ampex Museum, the UCLA/ATAS Television Archives, Life Magazine, and HBO Television network.

Lecture topics:

- History of television from its beginnings to HDTV

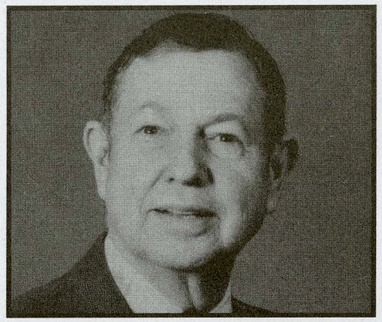
Address: 3318A Via Carrizo
Laguna Hills, CA 92653
Phone: 714 770 7354

Jane Mork Gibson is a historian of technology who works as a private consultant. She received the B.A. and M.A. degrees from the Department of History and Sociology of Science at the University of Pennsylvania. She has served as an advisor on various exhibits, archival research projects, films, and historical editing projects. Her master's thesis on "The International Electrical Exhibition of 1884 and the National Conference of Electricians" examines the event that stimulated the founding of the American Institute of Electrical Engineers (the beginnings of the IEEE). Ms. Gibson's work has involved the industrial history of the nation, with a special emphasis on Philadelphia, and she is active in many related organizations, e.g. as a National Director of the Society for Industrial Archeology.

Lecture topics:

- The International Electrical Exhibition of 1884 and the National Conference of Electricians (Ms. Gibson is willing to slant this lecture in different ways, e.g. to emphasize the state of technology, the founding of AIEE, professionalization of electrical engineering, or competitive testing of incandescent lamps and dynamos)
- Philadelphia's Answer to Pearl Street Station: Design and Operation of Samson Street Central Station by William D. Marks in 1889

Address: 32 Rex Avenue
Philadelphia, PA 19118
Phone: 215 242 4971



Stephen L. Johnston is an electrical engineer with a specialty in radar, microwaves, and related subjects. He holds the BSEE and MSEE degrees from Georgia Institute of Technology. During World War II he served in the U.S. Army Signal Corps in the South Pacific war area. From 1951 until 1980 he was employed at the U.S. Army Missile Command at Redstone Arsenal, Alabama. After retirement from Federal Civil Service, he became Editor-in-Chief of the International Radar Directory and is a consultant. He is the author of Radar Electronic Counter-Countermeasures (Artech House 1979, and Robert Krieger 1985) and Millimeter Wave Radar (London, Collins Professional Technical Books, 1987). He is the author of two patents and numerous articles. For many years he has been active in IEEE activities, the Association of Old Crows Electronic Warfare Society, and various activities associated with the history of radar.

Lecture topics:

- History of radar, microwaves, and eletronic warfare (various topics, including the Aircraft Warning System installed in Hawaii during World War II)

Address: 4015 Devon Street
Huntsville, AL 35802
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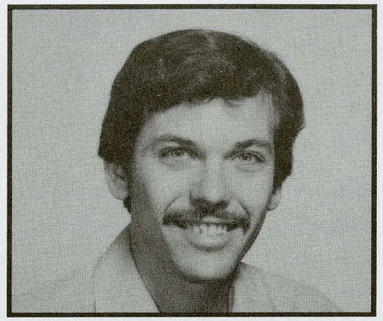
Fax: 205 288 2369



Henry E. Lowood is a historian of science and technology with a special interest in Silicon Valley. He received his A.B. from the University of California, Riverside, and an M.A. in history, an M.L.I.S., and a Ph.D. in history from the University of California, Berkeley. He is presently employed as Bibliographer of the History of Science and Technology Collections and Curator of Germanic Collections in the Stanford University Libraries. He has held Rockefeller Foundation, Deutscher Akademischer Austauschdienst, and NSF fellowships and has taught history of science and technology at Berkeley, Stanford, and San Jose State University. His various historical and bibliographic publications on science and technology include The Silicon Valley: a Research Guide for Historians of Science and Technology (Garland, forthcoming).

Lecture topics:

- Stanford University and the Rise of Silicon Valley
- Fred Terman and the Engineering of Stanford University
- Building the Archives of Silicon Valley
- The History of Technical Publishing.

Address: Stanford University Libraries
Stanford, CA 94305
Phone: 415 723 4342

C. Dianne Martin is a computer scientist and educator. She received an M.S. degree in computer science from the University of Maryland and an Ed.D. in teacher education from The George Washington University. She is currently employed by the Department of Electrical Engineering and Computer Science at The George Washington University. For the past ten years she has been actively involved in the area of computers in education. She is the coauthor of Bits 'n Bytes About Computing: A Computer Literacy Primer and LOGOWORLDS (Computer Science Press). She is the coeditor of Case Studies in Computer Aided Learning (Falmer, 1990) and editor of In Search of Gender-Free Paradigms for Computer Science Education (National Educational Computer Conference and the International Society for Technology in Education). She is active in IEEE, the ACM Special Interest Group for Computers and Society, and the International Society for Technology in Education. Her current research interests include use of hypermedia in qualitative research, history and social impact of computer technology, and ethics education in computer science.

Lecture topics:

- The Myth of the Awesome Thinking Machine
- Comparison of Soviet and American Attitudes Towards Computers
- Facing the Computer Ethics Dilemma

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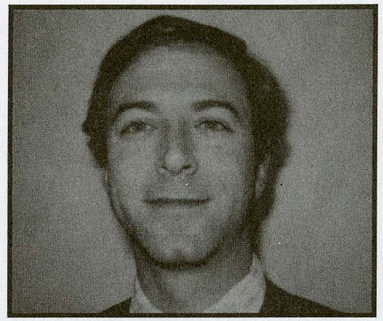

Eric Schatzberg is a historian of science and technology. He is currently employed as Postdoctoral Fellow at the Center for History of Electrical Engineering and teaches in the History Department at Rutgers University. He has a B.S. in engineering from Swarthmore College and an M.A. and a Ph.D. in history and sociology of science from the University of Pennsylvania. His dissertation, Ideology and Technical Change: The Choice of Materials in American Aircraft Design Between the World Wars, is being revised for publication by Princeton University Press. Before completing his graduate education, Dr. Schatzberg worked for several firms in the electric power industry. His current research involves the social and technical history of urban electrical transportation systems.

Lecture topics:

- Social and Technical History of the Electric Trolley

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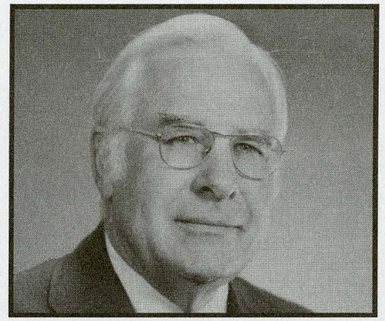

Charles R. Wright is an electrical engineer specializing in power engineering. He graduated from Pittsburgh State University in 1941 with a B.S. degree in education and continued his education after the war in the University of Colorado Extension in Denver. During World War II, he served in the U.S. Army Air Corps. He joined the Public Service Company of Colorado in 1945, where he served until his retirement in 1983. He was a supervisor of Electric Distribution Standards and Distribution Training. During his work in Standards, he was credited with three inventions, two pole line hardware items and a fiberglass street light pole. He also supervised the development of a method for treating Douglas fir poles. Mr. Wright has been active in IEEE activities and in the history of electrical engineering for many years.

Lecture topics:

- The Life of Nikola Tesla
- Taming the West With AC Power
- The Great AC/DC War.

Address: 720 Everett Street
Lakewood, CO 80215
Phone: 303 233 5553

Bayla Singer is a historian of technology. She holds the B.A. in science teaching and botany from Cornell University, the M.A. in physiology from Georgetown University, and the Ph.D. in history and sociology of science from the University of Pennsylvania. She was Curator for the IEEE-Franklin Institute Centennial Exhibit at the Franklin Institute Science Museum in Philadelphia. Her research in electrical history ranges widely and includes the work of Benjamin Franklin and his friends, the electric automobile, the healing powers of electricity, electrical parlor games, and the history of heat, light, power, and communication.

Lecture topics:

- Benjamin Franklin and His Friends
- Herbert Hoover and Rural Electrification in America
- The Early Electric Automobile
- Innovation, Design, and Marketing of Electrical Products
- When Times Change and Artifacts Don't
- Electricity as a Symbol of Progress, 1890-1915
- Real and Imagined Benefits of Electrotherapeutics

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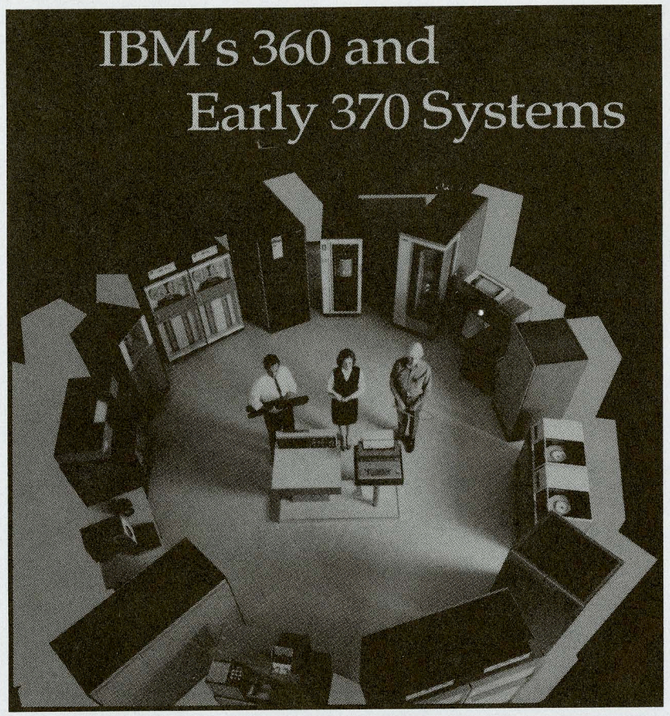
PUBLICATIONS

Books



Emerson W. Pugh, Lyle R. Johnson, and John H. Palmer, IBM's 360 and Early 370 Systems. Cambridge, MA: MIT Press, 1991.

This is the second book in a series telling the technical history of IBM's products. This volume covers the period 1960 to 1975, during which time the IBM System/360 computers — undoubtedly the most influential group of computers to be developed in modern history — were conceived and produced. The volume also tells the story of the successor group of computers, the 370 system, and the failure at the end of this period with an ambitious new system known as FS.

Considered in careful detail are the histories of many of the important innovations made during the course of the development of these systems: semiconductor memories, cache memory architecture, and new storage technologies such as the Winchester drive and the floppy disk. Other topics receiving detailed consideration include the move from transistors to integrated circuits, the need for software and new memory devices to support these system developments, the conceptualization and partial realization of a unified product line, and the special problems of building and marketing high-end computers.

Meticulous scholarship based on an examination of published reports, many company documents, and interviews with over a hundred participants give the book a technical detail and correctness that is unlikely to be surpassed — and also a volume that is more likely to find use as an encyclopedic reference than as a historical monograph. More than in the predecessor volume, this work considers managerial and marketing issues, but it is clearly strongest on matters of technical history.

The authors are all employed by IBM's research division and were all involved in the writing of the first volume.■

Pascal Griset (1991), Les révolutions de la communication, XIX° - XX° siècle (Hachette, Paris), 256 pp. F 79,00.

Griset, taking a geopolitical approach to the subject, sees the history of modern communications, including the telegraph, the telephone, photography, cinema, radio, the press, and television, as occurring in two phases. In the first, from the mid 19th century until World War II, England's leading role was successfully challenged by the United States, France, and Germany. In the second phase, an age of electronic and global communications, the United States secured a dominant position that has only recently come to be challenged, notably by Japan. Griset's objective goes beyond describing the spread of new communication technologies to discerning their political, economic, social, and cultural effects.

Pascal Griset is an historian at Institut d'Histoire Moderne et Contemporaine (CNRS); he has also written, with Alain Beltran, Histoire des techniques, XIX° - XX° siècle (1990).■

Other Books:

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Fellowships, Grants and Seminars Announced

Dibner Library Resident Scholar Program

The Smithsonian Institution Libraries Dibner Library Resident Scholar Program will offer two short-term study grants for 1992 with stipends of $1,500 per month for a term of one to three months to do research in the Dibner Library of the History of Science and Technology and other library collections of the Smithsonian. Scholars are expected to be in residence at the Smithsonian Institution. Collection strengths lie in the physical sciences, mathematics, and applied sciences and technologies, including electronics, railroad engineering, chemical industries, textiles, tunnelling and bridging, as well as a collection of 230,000 trade catalogs. The award is open to pre- and post-doctoral scholars. Criteria for evaluation of applicants are quality of proposal and evidence of ability to carry out proposed research. Deadline for applications is 1 November 1991; awards will be announced by 31 December. For application materials, write to Resident Scholar Program, Smithsonian Institution Libraries NHB 22, Washington DC 20560; telephone: (202) 357-2240.■

National Humanities Center

The National Humanities Center in North Carolina announced its fellowship program for 1992-1993. The Center supports advanced study in history, languages and literature, philosophy, and other fields in the humanities. Each year it awards 35-40 fellowships to scholars of demonstrated achievements and to promising younger scholars. Fellows are expected to pursue their own research and writing in residence at the Center. Scholars from any nation may apply; most awards run for an academic year. Representatives from the natural and social sciences, the arts, the professions, and public life may be admitted if their work has humanistic dimensions. As the Center cannot in most instances replace full salaries, applicants are urged to seek partial funding in the form of sabbatical salaries or grants. Application deadline for the 1992-1993 academic year is 15 October 1991. For application material, write to: Fellowship Program, National Humanities Center, P.O. Box 12256, Research Triangle Park, NC 27709-2256, USA.■

National Endowment for the Humanities

The National Endowment for the Humanities is offering several programs that might be of interest:

Travel to Collections: Assists individuals use research collections with travel, lodging, and photoduplication costs; stipend is $750. Application deadline is 15 July for travel after 1 December 1991; 15 January 1992 for travel after 1 June 1992.

Summer Stipends: Provides two months of full-time support for study and research. In most cases, faculty members must be nominated by their institutions. Stipend is $4,000. Application deadline is 1 October 1991 for 1992 awards.

NEH Fellowships: Provides 6 to 12 months of full-time study and research that will make a significant contribution to the humanities. Maximum stipend is $30,000. Application deadline is 1 June 1991 for 1992-1993.

For information and application materials for any of the above, write Division of Fellowships and Seminars, Room 316, NEH, 1100 Pennsylvania Avenue NW, Washington, DC 20506.■

Royal Institute of Technology

The Department for the History of Science and Technology, Royal Institute of Technology in Stockholm encourages graduate students in the history of science and technology from any country except Sweden to apply for the Lars Hierta Fellowship. This new award will permit one recipient each year to spend a month in Stockholm. The primary requirement will be two talks: one on the recipient's research and another on the program at the recipient's home institution. The fellow will be encouraged to join the activities of the department and pursue his/her research using the collections of the Royal Institute. Applicants need not be working on a dissertation topic, precedence will be given to students working in the history of technology. The fellowship provides round-trip plane fare from the recipients home institution, as well as room and board at a student hostel for one month. In addition, the recipient receives a diploma and a small honoraria to permit travel elsewhere in Scandinavia to other other graduate departments, technological museums, and libraries. Applications for the 1992 Lars Hierta Fellowship should be no more than two typed pages, and should be received before 1 October 1991. Address applications to Professor Svante Lindqvist, Department of History of Science and Technology, Royal Institution of Technology, S-100 44 Stockholm, Sweden, Fax: int+46 8 24 62 63.■

Register of Western Union Collection Issued

The Smithsonian Institution has issued a register of the Western Union Telegraph Company Collection as a softbound book. The 94 page book, prepared by Robert S. Harding of Archives Center of the National Museum of American History, itemizes the Smithsonian Institution's collection of Western Union materials covering the years 1848 to 1963. The collection includes material concerning the general history of the telegraph, the history of the Western Union Telegraph Company, administrative records of Western Union, correspondence, notebooks, patents, scrapbooks, telegrams, the Western Union Telegraph Museum, reference works, and photographs. The register includes a full listing of the contents of the 111 boxes held by the Smithsonian and is richly illustrated with black and white photographs.■

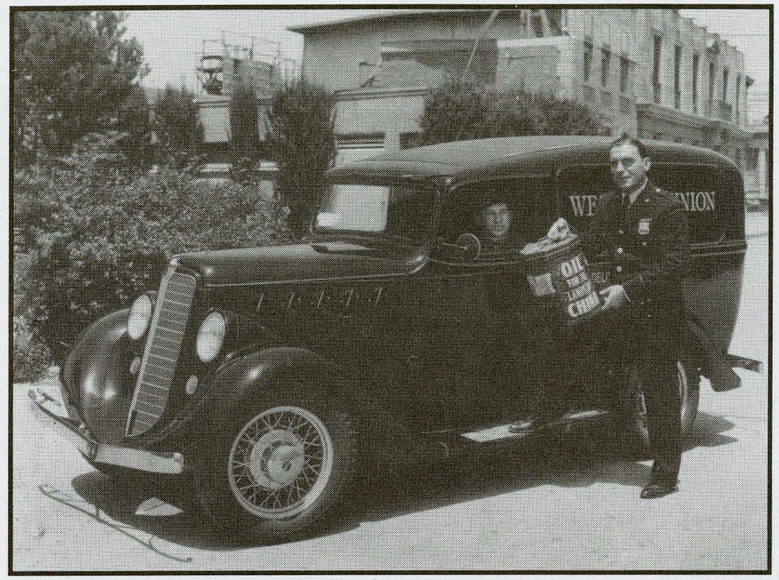


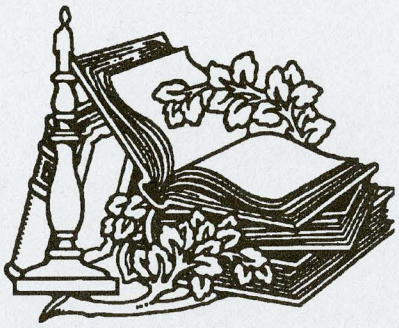
Photo from the Smithsonian Collection
Photo courtesy of Smithsonian Institution

Conservation Booklet Released

A booklet concerning the conservation of large industrial artifacts has been distributed to preservationists in the interest of promoting sound curatorial practices. Written by a panel of advisors drawn from the National Park Service, universities, museums, historical associations and preservation groups, the booklet contains many specific recommendations for the interpretation, presentation, and care of large industrial artifacts. Along with valuable preservation techniques, stress is placed on elaborating the context of an industrial artifact—the landscape and cityscape in which it functioned, and the site's place in the nation's industrial system—in order to provide a richer interpretation of the artifact. The booklet was prepared under the authority of the Southwestern Pennsylvania Heritage Preservation Commission, which is overseeing the National Park Service's American Industrial Heritage Project.■

ASA Archives Established at the University of Mississippi

John Kopec, Chairman of the Acoustical Society of America's Committee on Archives and History, has announced the establishment of the ASA Archives in Physical Acoustics at the National Center for Physical Acoustics at the University of Mississippi. The facilities and services of the Center were offered by Dr. Lawrence Crum, the Center's interim Director who will also serve as curator of the new ASA Archives. The Center will provide storage and care of any and all documents and materials in the area of physical acoustics donated to the Acoustical Society of America. Kopec stated that the ASA Archives in Physical Acoustics will join the recently established ASA Archives in Architectural Acoustics located at the Riverbank Acoustical Laboratory Museum in Geneva, Illinois. The Committee on Archives and History is seeking additional archive sites for each of the society's major technical areas so that important scientific papers and archival material, not already committed to universities, libraries, and other locations, may be preserved and made available to future generations of acoustical scientists and historians. For further information on the ASA Acoustical Archives program contact John W. Kopec, Riverbank Acoustical Laboratory, 1512 Batavia Avenue, Geneva IL 60134, (708) 232-0104, or, for information on the new Physical Acoustics Archives contact: Dr. Lawrence A. Crum, The University of Mississippi, National Center for Physical Acoustics, Coliseum Drive, University MS 38677, (601) 232-5889.■



Call for Papers

The program committee of the Society for the History of Technology repeats its call for papers for the 1992 meeting in Uppsala. Proposals are welcome in all areas of the history of technology, broadly defined. Especially welcome are proposals for full sessions and group or individual proposals that examine non-western topics, gender, comparative studies, international studies, and studies or sessions involving one or more culture. The committee encourages sessions that stimulate international perspectives and collaborations in the history of technology. The program committee also invites proposals for presentations in alternative formats, including carefully prepared audio-visual or computer demonstrations. The proposal should clearly describe formats (including length and dimensions) and equipment. All proposals must include five copies of a 150-words abstract and a one-page curriculum vitae; single-paper proposals require only the abstract and c.v. Session proposals should include the theme of the session, an abstract of each paper, and a c.v. for each participant, including chair and commentator. All proposals are due 1 October 1991. Submit proposals to the 1992 program chair, Håkon With Anderson, Center for Technology and Society, University of Trondheim, N-7055 Dragvoll, Norway, Telephone: 47 7 591789, Fax: 47 7 591327, e-mail: hakon.anderson@avh.unit.mo Preliminary inquiries are welcome.■

NEH Supports Preservation Projects

The NEH Office of Preservation supports projects to preserve the intellectual content of the many resources important to the study of our cultural heritage, including books, journals, manuscript and archival collections, maps, photographs, objects of materials culture, and so on. Programs include an accelerated effort to support library preservation efforts, the U.S. Newspaper Program, and the National Heritage Preservation Program. Application deadlines are 1 June for projects beginning the following January and 1 December for projects starting the following July, except for the National Heritage Preservation Program — that deadline is 1 November. For more information, contact NEH Office of Preservation, Room 802, 1100 Pennsylvania Avenue NW, Washington DC 20506; telephone: (202) 786-0570.■

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