Oral History Guide in Progress

The Center for the History of Electrical Engineering is preparing a guide to oral history interviews relating to electrical science and technology. The guide is based on the results of a survey, conducted with support from the IEEE Life Member Fund, of 238 repositories in the U.S. Descriptions of more than 1,200 interviews have been entered into a database and editing and verification of the information has begun. It is planned to publish the guide late in 1989, but the Center staff will be happy to assist researchers with specific requests at any time during the project.

A brief listing of some of the interviews included in the guide illustrates the range of topics, individuals, and organizations tapped by oral history projects.

**Electric Light & Power**
- Thomas A. Edison Project
- Minnesota Powerline Construction Oral History Project
- Rural Electric Story
- Tennessee Valley Authority

**Electrical Engineering Education**
- James R. Killian, Jr.
- MIT Physical Science Study Committee

**Electronics**
- John Bardeen
- Electronic Entrepreneurs
- Hewlett-Packard Co.
- Jack Kilby

**Radar**
- Cavity Magnetron and Radar Development
- Klystron Developments
- Robert A. Watson-Watt

**Research**
- Lawrence Berkeley Laboratory
- Los Alamos Scientific Laboratory

*Lee de Forest was interviewed for the Radio Pioneers project. He is shown here operating radio receiving apparatus in 1921.*

*Construction of TVA's Norris Dam*

*Charles Stark Draper, a pioneer in inertial guidance systems.*
Cavendish History Project

The Department of History and Philosophy at Cambridge University is planning a research project on the history of the Cavendish Laboratory and British physics during the late-nineteenth and early-twentieth centuries. Participants will include department professors Simon Schaffer, Andrew Warwick, and Jim Bennett. Their initial goal is to organize a database of biographical information on workers at the Cavendish from the laboratory's founding in 1871 to 1894, when changes in regulations concerning the admission of new researchers to the faculty went into effect. A register of archival and published material relevant to the Cavendish during the period 1871-1904 will also be compiled. In addition, the project staff plans to collect material pertinent to the role of Cavendish workers in the formation of research laboratories, such as the National Physical Laboratory, at other institutions during the period.

Research Support Available from Hagley, AIP, CBI

The Hagley Museum and Library has advertised in its 1989-90 fellows and grants for the study of business economics, science, technology, and history. Applications are invited for advanced, research, and, research fellowships for independent study in Hagley's fields of interest. The Center for the History of Business, Technology, and Society offers fellowships to support research fellowships. Applications must either be working toward a graduate degree in the history of business or have 2 years of experience in the field. The deadline is 15 January 1989.

Research fellowships are offered to support doctoral work. Up to two per year are available. At the Hagley, the amount of $1,500 is available to applicants studying for a degree at Columbia, Maryland, New Jersey, and eastern Pennsylvania. A residential dissertation fellowship is available for the amount of $3,000 per year, with a stipend of $1,500, to be open to students in doctoral programs at any university in the U.S. or abroad. The stipend, however, must demonstrate the strong pertinence of Hagley’s collections to the dissertation topic and at least twelve months in residence at Hagley. All dissertations are expected to be completed by 15 May 1989. Applications are due 15 January 1989.

For further information, contact the Department of History and Philosophy of Science, University College, Galileo’s Way, Cambridge, CB2 3RH, England.

IEEE History Committee 1988


Briebs...
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The Center for the History of Electrical Engineering

The Friends of the IEEE Center for the History of Electrical Engineering study the development and understanding of electrical engineering's history and impact on society through support of the Center's programs. The number of friends has doubled this year and we would like to thank each of you for your contribution to the Friends Fund of the IEEE Foundation. The roster of friends, as of 30 September, follows.

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Exhibitions and Museums... 

Scientific Instruments at Uppsala University

Sven Widmalm
Uppsala University

In the autumn of 1739, a shipment of scientific instruments from London arrived in Uppsala. The instruments were to be used by Samuel Klingenstein, then professor in geometry, for demonstrating experiments to students. The role of experimental physics in the university curriculum was thereby officially recognized, even though it would take another decade before a professorship in the subject was established.

When Klingenstein became the first professor of experimental physics in Sweden in 1750, Newtonian science had finally gained official approval, since the new chair was to be devoted especially to "Newton's discoveries in physics." Klingenstein conducted experiments mainly in electricity, a tradition successfully continued by his pupil, Johan Carl Wilcke, who was employed at the Academy of Sciences in Stockholm. In Uppsala, Klingenstein's immediate successors, Samuel Duræus and especially Zacharias Nordmark, vastly increased the university's collection of instruments. In the mid-1790s, Nordmark made a suggestion, quite novel at the time, that the collection should be used not only for educational purposes, but also for scientific research.

Compared to the Continent or Britain, the development of laboratory-based physical research was slow in Sweden. During the first half of the nineteenth century, the physicists in Uppsala educated students and performed research on a small scale, now in the backwater of the "second scientific revolution." From the 1860s, the situation changed, due, for example, to the work of Anders Jonas Angström, and his son Knut. Physical research in Uppsala now gained esteem for its excellence in precision measurement, based on advanced instrument technology.

Today, some of these instruments, collected over the first 150 years of institutionalized experiments in physics in Sweden, are on display at the Department of Physics at Uppsala University. Among them are items such as a well-preserved air pump, several machines for electrical experiments, and a chromatic compound microscope by Culpeper—all circa 1740. From the later years, we have a beautiful set of Coulomb brass conductors for the demonstration of the distribution of electric charge (1831), one of the first commercially-produced Daguerre cameras (by Giroux, ca. 1840), several early electrical motors and galvanometers, early X-ray tubes, and, of course, instruments pertaining to the photometric work of the Angströms, such as Anders Jonas's spectrometer from 1862 and several of Knut's pyrheliometers from the early-twentieth century.

The instrument collection at Uppsala University is described by Arne Eld Sandström in "The Uppsala Cabinet of Physics" (Kungliga Vetenskapssamhällets I Uppsala Aarbok 25, 1983-84). The latest issue of Kosmos (1987, edited by Torsten Lindqvist), a publication of Svenska Fysikersamfundet (Swedish Association of Physicists), is dedicated to the history of physics; it may be ordered from Almqvist & Wiksell Periodical Co., Box 658, S-101 28 Stockholm.

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