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FERMI NATIONAL ACCELERATOR LABORATORY

FermiNews

UNIQUE HISTORY/ARCHIVE PROGRAM ON SITE

Lillian Hoddeson, Fermilab's part-time historian of physics, poses with theorists (left to right) Yoichiro Nambu and Satio Hayakawa at a wine buffet organized by Joanie Bjorken during the International Symposium on the History of Particle Physics held at Fermilab in 1980 (see story by Lillian Hoddeson). The gentlemen on the right in the photograph are Jagdish Mehra and Peter Galison, historians of modern physics.



(Photo courtesy of Ryuji Yamada)

by Rene Donaldson

Dr. Lillian Hoddeson loves her job, and it isn't just because she is at Fermilab one-quarter time! Lillian is an historian of physics who has been helping Fermilab since 1978 to create an archival collection on history of accelerators and particle physics, which includes Fermilab's early history. Lillian is a member of the History Committee which was recently revived to assist her program. The committee's major concern is that the documentation of major events in accelerator history are rapidly deteriorating or being misplaced, and they want to contribute toward preserving these resources for use by physicists, historians, and other scholars and writers. The rest of Lillian's time is spent in Urbana, Illinois, as the research head of the U. S. part of an international team (Urbana, Munich, Birmingham, Paris) that has received grants to preserve and write the history of solid-state physics.

While Lillian was a graduate student in physics research at Columbia University, she became interested in physics history; however, it wasn't until after she received
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by Lillian Hoddeson

The Fermilab history/archive program is unique because it has a strong historical as well as archival function, and its goals extend beyond Fermilab.

At the time I joined Fermilab (January, 1978), my primary objective was to preserve the documentation of the history of accelerators for future use. I began to collect papers pertinent to both the history of Fermilab and other accelerator laboratories and to conduct tape-recorded interviews with past and present Fermilab personnel and physicists at other laboratories. A number of pioneering accelerator physicists, including M. Stanley Livingston, John Blewett, Edwin McMillan, Donald Kerst, and Herbert Anderson, were invited to visit and give lectures on their earlier achievements. Such visits provided an occasion for interviews and recorded historical luncheon discussions (see photo on next page).

However, as the archival work progressed, it became clear that the gathering of documentation is most effectively carried out if it is combined with research and
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HISTORIAN OUTLINES ARCHIVAL PROGRAM



Stanley Livingston (second from right), Fermilab's first Associate Director, reminisces on accelerator history with members of the history committee (left to right) Lillian Hoddeson, Fermilab's first Deputy Director Edwin Goldwasser, and Arthur Roberts.

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historical writing--just as the availability and accessibility of documents and oral recollections makes it possible to write about historical developments, studying the events helps to identify the documents which are of historical importance. Historical work serves the scientific community by enabling it to see work in perspective, helping to increase motivation and sharpen judgment for future directions.

The most ambitious of our history efforts has been the International Symposium on the History of Particle Physics held at Fermilab in May 1980. This symposium, organized with Dr. Laurie Brown from Northwestern University, considered the early roots of particle physics in the 1930s and 1940s, especially cosmic rays and quantum electrodynamics. Many Fermilab physicists and approximately 100 visitors from other institutions, both U. S. and abroad, met with and heard formal talks by essentially all the major figures in the early period of particle physics who were still able to attend, including Paul A. M. Dirac, Victor Weisskopf, Carl Anderson, Herbert Anderson, Robert Serber, Satio Hayakawa, Bruno Rossi, Gilberto Bernardini, Julian Schwinger, Willis Lamb, and Robert Marshak. The interest of the scientific community in such activities is attested to by the

number of follow-up particle physics history symposia, including one in Paris and a prospective one in Japan, and by the large number of participants attending with their own funding. The proceedings will be published this spring by Cambridge University Press as a book **The Birth of Particle Physics**.

The archival goal of Fermilab's history program is to gather and maintain as complete as possible a collection of source material relating to all aspects of the development and work of Fermilab over the years and to identify and preserve where practicable important documents on accelerator and particle physics in general. Archival documents include letters, reports, notebooks, memoranda, manuscripts, unpublished talks, material published but issued in small numbers, photographs, and original first-person recollections by participants. Since documents not gathered systematically tend to be misplaced or destroyed, a continuing effort to gather and preserve documentation is necessary. We are presently assembling relevant documents at the rate of 10 feet of shelf space per year. Tape-recorded interviews with accelerator physicists and figures at Fermilab are being added at an average rate of 10 per year.

(cont'd. on pg. 3)

SHAW'S "DON JUAN IN HELL" TO PLAY IN MARCH

by Jane Green

The relationship between the sexes and the achievement of self-fulfillment are the focus of George Bernard Shaw's heady comedy, "Don Juan in Hell." This play, in its critically acclaimed production by the Chicago City Theatre, will be presented in Ramsey Auditorium at 8 p.m. on Saturday, March 19.

HELP SAVE LAB'S HISTORY

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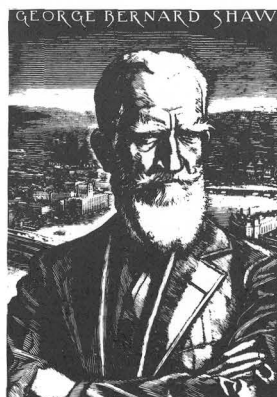
I would like to appeal to all **Fermi-news** readers to contribute to our growing history collection. The material need not yet be old, for example, documents about recent decisions or the start of new facilities (such as the Infant Center) are historic and will be in a very few years of great value to those trying to reconstruct the events. If you have or know of such material, I would appreciate your sending me a short note or phoning me on ext. 3401 (if you cannot reach me on site, please leave a message and I will get back to you on my next visit to Fermilab). I cannot overemphasize how important your cooperation with our history effort will be to those who will wish to write accurately about the exciting developments at Fermilab, including those occurring now.



Dick Carrigan (right), chairman of the History Committee, talks to Paul A. M. Dirac at the Bjorken's home during the International Symposium on the History of Particle Physics, organized by Lillian Hoddeson and Laurie Brown in 1980. Dirac, the father of relativistic quantum mechanics and the idea of antimatter, may well be the most famous living physicist.

(Photo courtesy of Ryuji Yamada)

Producing Director Joseph Ehrenberg was praised for his "intelligent interpretation of Shaw's clever script," as well as



his "superb performance" as Satan in the company's 1979 presentation of the drama. He will recreate his role in the Chicago City Theatre production at Fermilab. Shaw's interpretation of Don Juan is based on Mozart's Don Giovanni, the cavalier seducer of women. The play itself opens with Don Juan's

arrival in hell, depicted as an elegant art deco drawing room. There Don Juan confronts a trio: Satan, Dona Anna, the object of Juan's earthly desires, and the genial Commander, Dona Anna's father. Originally, the play was the third act dream scene in Shaw's "Man and Superman," but explodes onto the stage as a full evening of theater, packed with ideas and drama. As one critic noted of the work, Shaw "was a devil at keeping us involved."

Admission to the program is \$5, and tickets are now available at the Information Desk in the atrium of Wilson Hall, ext. 3353. Phone reservations are held for five days.

PHYSICIST TURNS HISTORIAN

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her Ph.D. that she had a chance to pursue her interest. As an assistant professor at Barnard College of Columbia, Lillian worked with experimentalist Professor Samuel Devons to create a history of physics laboratory. Subsequently she began to specialize in history of modern physics.

With these credentials, Lillian was delighted when Director Emeritus Robert Wilson asked her to assist Fermilab. After all, it isn't every day that a physicist gets a chance to preserve the history of an accelerator that is just "beginning."

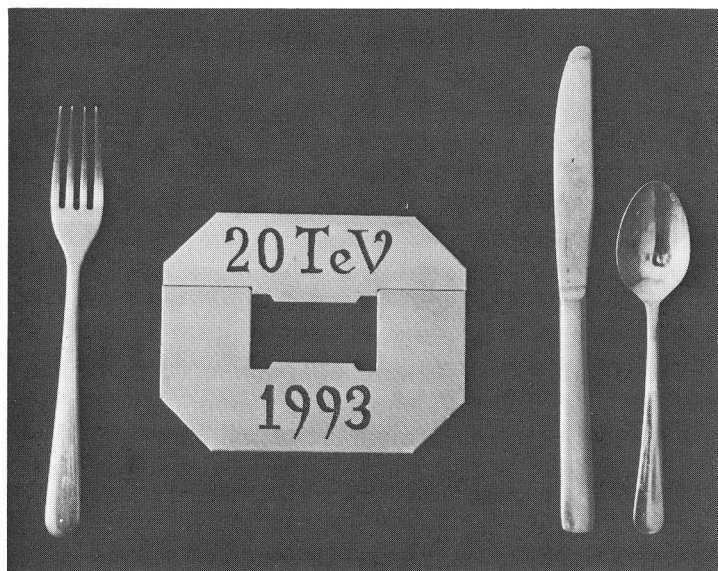
PORTER EXHIBITS ANTARCTICA, ICELAND PHOTOGRAPHS

by Sandra Cox

Eliot Porter has loaned to Fermilab's second floor gallery a collection of his Antarctica and Iceland photographs. Porter selected these pictures of seemingly cold places from the many, many varied subjects that he has photographed during his career. The artist stated that the photographs of Iceland were taken during the summer.

Porter's professional interest in photography was encouraged in 1938 when he had an exhibition at An American Place Gallery. At that time Alfred Stieglitz and Ansel Adams advised him to devote his full time to photography. Eliot Porter was awarded two Guggenheim Fellowships to photograph birds, and his pictures have appeared in a number of books on wildlife, including **Living Birds of the World** and **Land Birds of America**. His interest in conservation led to several projects with the Sierra Club, such as the book about Glen Canyon that was produced just before the area was submerged by a dam project on the Colorado River. Unlike most photographers using color, Porter makes his own separation negatives and dye transfer prints so that the color values of the final print are fully under his control. In 1979/80 Porter was honored by the first one-man exhibition of color photographs ever presented at the Metropolitan Museum of Art.

In addition to the 50 prints displayed in the main gallery, there is a copy of the limited edition, **Portfolio II, Iceland**, mounted on the wall facing the Research Division. The exhibit will remain on display until February 28.



COMPUTER OWNERS UNITE

by Duane Plant

A quick count of home-owned computers in the area of the Cross Gallery revealed 16. Most of the people in this area knew the others had computers, but they wanted to know other people who own computers.

Recently, a visit to a local retail store netted five names of computer owners. All of these "new finds" were located in one area of the Village and all were unknown to the people in the Cross Gallery. Since meeting, these two groups have made new friends, exchanged ideas, and learned from each other.

There must be 30 or 50 more home-computer owners in Fermiland--where? Also, the possibility of a computer club is being discussed. If you have a home computer and want to know other people with computers of the same kind, call me on ext. 4385 with the information and I will compile and distribute a list. So far, eight types of machines are represented.

PSYCHIATRIC BENEFITS INCREASED

Fermilab has increased the Outpatient Psychiatric Benefits included in the Connecticut General major medical plan effective January 1, 1983. The new coverage for outpatient psychiatric benefits will be 50% of the per visit charge, as long as it is reasonable and customary, after the major medical deductible has been met. The old coverage for these expenses allowed a maximum payment of \$15 per visit. The annual outpatient psychiatric maximum of \$750 has not changed.

Any questions regarding this benefit should be directed to the Employee Benefits Office, ext. 3395.

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