



Lord Kelvin and his assistant conducting an experiment with an azimuth mirror. From Kelvin the Man: a Biographical Sketch by His Niece, by Agnes Gardner King (London: Hodder and Stoughton, [1925]). This and some pictures in later pages were found in books that are being microfilmed under the Niels Bohr Library's Program to preserve brittle books for posterity. Photo courtesy AIP Emilio Segrè Visual Archives.

Oral History Interviews Advance Understanding of the History of Recent Astronomy

by W. Patrick McCray, Associate Historian, Center for History of Physics

Historians have a number of resources available to them to help reconstruct past events — correspondence, annual reports, and meeting minutes all make up part of the historical record. Often missing from these records, however, is information about scientists' personal experiences and recollections. For this reason, oral history interviews can offer a unique insight (and one that is often missing in the modern historical

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Project to Document History of Physicists in Industry Completes First Year

Industrial R&D remains the least documented of the three major theaters — academic, government, and corporate — of scientific research in America. Addressing this problem head-on, the History Center's three-year Project to Document the History of Physicists in Industry completes its first year this November. The study, like other documentation research work that the Center has undertaken, is designed to develop strategies and recommendations for saving hard-to-preserve records in the history of science, as well as to fill gaps in the existing historical record by conducting oral history interviews with scientists.

During this first phase of the study, we are concentrating on structured interviews with bench scientists, R&D managers, and information professionals at leading corporate labs. Using standard question sets, we are probing how research projects got started, how scientists and science managers communicated and worked with one another, what kinds of records have been created in the course of research projects and how scientists have used them, and what becomes of records when they are no longer active. Special areas of interest include the effects of e-mail and electronic record-keeping on communications, and the current role of the once ubiquitous laboratory notebook and other traditional records. These question-set interviews average about two hours in length. Along the way we are taking the opportunity to ask scientists about their education and career paths and inquire about such questions as how the organization and funding of industrial R&D has changed over the past several decades.

Project staff spent the first several months doing background research, selecting the 15 companies that we are inviting to participate in the study, and developing question sets. Gaining corporate permission to interview scientists was also an important activity, with gratifyingly cooperative responses. We began field work in March, and as of this writing we have conducted interviews with 33 scientists and R&D managers and 15 archivists, records managers and librarians at six major industrial labs: IBM, Xerox, Corning, General Electric, Eastman Kodak, and Lucent Technologies. During the next three months we are scheduled to visit the central R&D laboratories of Texas Instruments, Exxon Mobil, and 3M.

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(Project to Document... continued from page 1)

While it's too early to begin drawing any concrete findings, the initial interviews have been very informative and some initial patterns are beginning to emerge. A number of the scientists and information professionals have been frank in discussing a breakdown in record-keeping practices as electronic records supplant paper ones. In some labs, the traditional laboratory notebook has fallen by the wayside without being replaced by effective electronic equivalents. Many researchers also describe another effect of electronic communications and especially e-mail: a decrease in face-to-face interaction with coworkers, while long-distance collaboration has become easier. Differences are as prominent as similarities. As just one example, all high-tech companies are facing a tough economic environment today, but the effects of the current economic malaise on the companies that we're studying—and on their R&D programs—vary markedly. As we complete the early interviews, we are reviewing and revising the question sets. Once the project is completed and we have analyzed these interviews for the purposes of the study, we will add them to the collections of the Niels Bohr Library (with the permission of the interview subjects) for the use of future scholars.

As we move into the second year of the study we will expand project activities. In addition to pursuing the structured interviews we will start conducting longer, autobiographical oral history interviews with a small group of especially influential industrial physicists and R&D managers. We will also begin



Corning physicist Doug Allan (left) reviews one of his laboratory notebooks with AIP project historian Tom Lassman, May 2003. Photo courtesy AIP Emilio Segrè Visual Archives.

studying public and private archival programs that currently collect and preserve the history of industry, and the project historian will continue work on a historiographical essay on American industrial research. For questions or additional information please contact project director Joe Anderson (rja@aip.org, 301-209-3183) or project historian Tom Lassman (tlassman@aip.org, 301-209-3167).

New Web Exhibit and Book Details the Discovery of Global Warming



*The Discovery of Global Warming
...on the Web, on CD, and also in print.*

A new Web exhibit, “The Discovery of Global Warming,” has been created by Spencer Weart, Director of the AIP History Center, at www.aip.org/history/climate. It is aimed at scientists, historians, and others interested in the history of climate science from the 1890s to the present. Comprising some two dozen essays with illustrations and bibliography, the Web site is roughly equivalent to a thick scholarly book. However, the essays are not meant to be read in any particular order.

Mirroring the complex nature of geophysics history itself, the texts run in parallel, interconnected with over 700 hyperlinks. Meanwhile Weart has published a short, linear narrative of the story, suitable for students and the general public, with Harvard University Press.



(Oral History Interviews... continued from page 1)

record, dominated increasingly by evanescent electronic communications) into someone's life. To help better understand the changes that the astronomical community has experienced in the past quarter-century, I have been conducting a series of lengthy biographical interviews for the AIP Center for History of Physics with a diverse array of prominent scientists. Christopher Smeenk, now assistant professor at UCLA, cooperated in the effort by interviewing several scientists active in cosmology, a scientific specialty that he was particularly interested in.

The inspiration for this series of interviews was the Sources for History of Modern Astrophysics project (SHMA) conducted by the History Center in the 1970s. Led by David DeVorkin (now a historian at the National Air and Space Museum) and Spencer Weart, the Center's Director, the SHMA project resulted in over 400 hours of interviews with over 100 astronomers. DeVorkin and Weart interviewed such prominent scientists as Subrahmanyan Chandrasekhar, Martin Schwarzschild, and Allan Sandage. But since the SHMA project ended, an entirely new generation of astronomers and astrophysicists has matured and come to the fore. Compelling "new" research topics such as dark matter, gravitational waves and lenses, black holes, and the large-scale structure of the universe have become increasingly evident. Meanwhile, astronomical research practice itself has changed in profound ways. Team-based research and large-scale collaborations among observers and theorists are more common. Numerous recent interviewees described the emergence of multi-wavelength astronomy, in which researchers combine data collected from several different telescopes observing the same objects at diverse parts of the electromagnetic spectrum. Finally, astrophysicists and high-energy physicists have collaborated more frequently as research on the "very large" and the "very small" has coalesced in several fruitful ways.

After consulting with other scientists as well as science journalists and historians, we created a list of potential interviewees.

One goal I had was to capture a broad section of the astronomical community, so we endeavored to be as inclusive as possible — instrument makers, theoretical cosmologists, observational astronomers, and even a few science managers were interviewed. Because the demographics of the astronomy community have changed considerably since SHMA was done, I also interviewed several women scientists. A typical interview was about four to five hours in length and covered diverse aspects of the person's life, from their education and training to issues of how they organized and carried out their research activities, along with their participation in important scientific collaborations or committee work.

To date, we have done over thirty interviews. Most of these are still in the process of being checked for accuracy and edited — doing oral history is both time-consuming and costly — but several have already been added to the archival collections of the Neils Bohr Library. Examples include: Sidney Wolfe (the first woman director of the National Optical Astronomy Observatory), Helmut Abt (editor of *The Astrophysical Journal* for over two decades), Christopher McKee (researcher on interstellar matter and a co-chair of the most recent NAS decadal survey for astronomy), and Robert Fugate (a leading developer of adaptive optics technologies).

Personally speaking, the interviews we conducted were quite helpful in helping me write my forthcoming book on the recent history of telescopes (*Giant Telescopes: Astronomical Ambition and the Promise of Technology*; Harvard University Press, 2004). Of particular interest to me were interviews with experienced observational astronomers such as John Huchra and Wal Sargent about how they learned their craft and how the nature of being an "observer of the cosmos" had changed during their careers. I hope that these and the other interviews will become a valuable resource for future historians of science who are interested in the lives and research of astronomers in the last few decades of the 20th century.

The history of our planet's climate is the most important clue to its possible future. Over the past few decades, scientists have gradually realized that the climate has sometimes changed with catastrophic abruptness. Many experts worry that greenhouse gas emissions could provoke another such shift. Left: The most detailed data come from ancient ice. Cores drilled at Camp Century, Greenland, in 1964 revealed temperatures back into the last ice age. Photo by David Atwood, U.S. Army-ERDC-CRREL (Cold Regions Research and Engineering Laboratory), courtesy Herb Ueda. Right: An independent source of temperature and other data has been analysis of plankton shells in cores extracted from the deep sea, as in this operation on Lamont's research vessel Vema in the 1960s. Photo courtesy Lamont Doherty Earth Observatory.





Jim Carothers (second from right), who founded the LLNL Archives, was a physicist during the Lab's earliest days. Here he looks at a Project Plowshare test with Edward Teller (far left). Photo courtesy Lawrence Livermore National Laboratory.

although this structure was sometimes through administrative departments and sometimes through technical/scientific organizations. Two of the seven report to administrative departments, and one to the communications department. The number of levels between the archives program and the director of the institution ranged from three to five.

All of the surveyed labs were funded through overhead. Budgets ranged from \$300,000 to \$1.75 million, but only three of the seven labs provided financial information.

Collection size ranged from 1,500 cu. ft. to 5,000 cu. ft. for archives only. Total archival holdings for six of the seven labs (one institution could not distinguish records from archives) is approximately 19,500 cu. ft.; average collection size is 3,250.

Staff for the institutions that include records functions ranged from 1.75

Full-Time Equivalents to 12.5 FTEs. Staff for archives only ranged from 1.5 to 4 FTEs. The number of FTEs per 1,000 cubic feet of materials, including both records and archives, ranged from 0.2 to 0.7 FTE/1,000 cu. ft. of material, with an average of 0.4. The average number of FTEs for records only was 0.3 FTE/1,000 cu. ft. and 0.45 for archives only. These numbers must be taken as rough estimates since both the amount of material and staffing numbers are approximations and the types of materials managed vary.

Research requests from all sources ranged from 7.5 to 200 per month. The average number of monthly requests per institution is 45. If the institution serving 200 requestors per month is eliminated from the total, the average number of requests is 14.5 per month.

The conclusion that I draw from this information is that the national laboratory archives are a heterogeneous lot. I would also speculate that the nature of our collections and demands of our clientele require higher levels of staffing than is typical in many other types of archives. Perhaps this comparison is a candidate for further study.

We are most likely to learn the best methods of discovering truth, by examining how truths, now universally recognized, have really been discovered.

—William Whewell

Survey of National Laboratory Archives

by Maxine Trost, Laboratory Archivist, Lawrence Livermore National Laboratory

Lawrence Livermore National Laboratory has had an archives since 1981, when physicist and personnel administrator Jim Carothers became the Lab's first archivist. By 2001, when LLNL appointed its first professional archivist, the Archives occupied a 5,000-square-foot facility with some 3,500 cu. ft. of records and artifacts. With increased interest in the Laboratory's history growing from the celebration of its 50th anniversary in 2002, the Lab archives came to the notice of the Director's Office, and a revitalization and modernization ramped up.

As one of the first steps in the process, we undertook an informal survey of similar institutions to gather information about how our sister labs organized and managed their archives. We looked at seven national laboratories that do government contract work. Four of the seven handle classified as well as unclassified documents. Three of the four institutions have records and archives programs that function as a single unit (our data for those programs includes both functions except as otherwise noted).

One of our principal questions was about the archives' placement in their organization. We found most institutions (four) report to some variety of information management function,

Columbia, Celebrating 250th Anniversary, Expands Physical Sciences Archives

By Marilyn H. Pettit, Director, Columbia University Archives-Columbiana Library

Columbia University in the City of New York, founded in 1754 by royal charter as King's College, became "Columbia College" in 1784 and "Columbia University" in 1897 as it

moved to its present location, Morningside Heights in Northern Manhattan. The move to a new, spacious campus signaled growth and development in a coming-of-age period for American universities, as specialized graduate study and research lodged firmly within University settings. As Columbia University prepares to celebrate its 250th anniversary in 2003-2004, its students on all campuses hail from all fifty states and 100 foreign countries. The Columbiana collection of manuscripts and memorabilia, dating from 1883, merged with a newly-founded University Archives in 1990,

with a mission to collect and preserve the records of the University's administrative and faculty offices, student activities, and relevant neighborhood organizations. (Health Sciences has a separate archives on its own campus.) Most collections are accessible to qualified researchers, although administrative and Trustee records are restricted for periods following creation. Archives-Columbiana houses more than 6,000 cubic feet of records, including 4,000 cubic feet of archival records, 500 cubic feet of subject files, and a photo collection of about 35,000 positives and 60,000 negatives. The Archives services 1,600 research requests each academic year.

At Columbia's founding, no such discipline as "physics" existed, but the physical world was a world of wonder for those who termed themselves "natural philosophers." Columbia's

Physics Department came of age in 1896 when one of the initial buildings constructed on the new campus was "the physics building," now Fayerweather Hall. Michael Pupin (1858-1935, Columbia 1883) and Francis Bacon Crocker (1861-1921, Columbia 1882), professors of "electro-mechanics" and electrical engineering in the School of Mines and Engineering, raised money for laboratories and research after having initially worked in a building so small that students termed it "the cowshed." Pupin ultimately migrated from Engineering into the Faculty of Pure Science.



Columbia's President, former General of the Army Dwight D. Eisenhower, at the dedication of the Nevis (Westchester County) Cyclotron, May 2, 1950, with Prof. I. I. Rabi, Visiting Prof. Hideki Yukawa, and Prof. John R. Dunning. Photo courtesy Columbia University Archives - Columbiana Library.

The **Manhattan Project**, the **Radiation Laboratory**, and the **Nevis Cyclotron** were but a few projects emerging from departmental work during and after World War II, and the Archives houses records bearing on those projects. The collections now being arranged and described include the records of the **Department of Physics**, 1900-1985, and the Papers of Professor Emerita **Chien-shiung Wu**, 1946-1985. The Archives also holds astronomical observatory records dating from the beginnings of the **Astronomy Department** in the 1880s; Lewis Morris Rutherford's four 1865 views of the moon; and a

set of very early salted prints. The Archives hopes to attract further collections from Columbia's physical science departments, institutes, and faculty.

For further information the Web site is www.columbia.edu/cu/columbiana, e-mail archives-columbiana@columbia.edu, telephone (212) 854-3786.



Columbia's "new" Physics Laboratory building at its opening, 1927. The building was afterward named for Prof. Michael Pupin. Designed by the famous architectural firm McKim, Meade and White to cohere with the design of other campus buildings, the Pupin Physics Laboratories was declared a national landmark in 1965. Photo courtesy Columbia University Archives - Columbiana Library.



President Carter inspecting a solar heating panel installed on the roof of the White House. Photo courtesy Jimmy Carter Library.

Resources for History of Science Research in the Jimmy Carter Library

by Albert Nason, Archivist

The four years of the Carter administration (January 1977–January 1981) were an era of transition in the nation’s outlook toward the physical sciences. The soaring oil costs of the 1970s led to interest in fuel efficiency and new sources of energy, while also leading to budget constraints that curtailed other projects, such as space exploration. Typical of the shift in scientific interests was the instigation of development of a reusable space shuttle—the idea being that, if the USA was going to have spacecraft, these would have to be at least reusable ones rather than one-shot-only contrivances.

Weather and environmental issues also loomed larger, as natural disasters like the Mount St. Helens volcanic eruption and technological accidents like Three Mile Island occurred. Several years of the late Seventies brought unusually cold weather while, ironically, fears of climatic change and global warming were being voiced. Jimmy Carter, trained as a naval engineer at the U.S. Naval Academy and with post-graduate courses in nuclear science, brought more knowledge and interest in hard science to the Oval Office than is generally the case, and put his primary focus on the creation of the Department of Energy (DOE).

The Science and Technology Advisor to President Carter was geoscientist Frank Press, who also served as Director of the Office of Science and Technology Policy (OSTP). He was assisted by Laurence H. Linden, Senior Policy Analyst, OSTP. This office dealt with policy issues, physical sciences, and environmental and natural resources issues. The files of this of-

fice cover research and development programs, national energy policies, industrial innovation, and scientific and technological exchange agreements with the newly recognized People’s Republic of China. (Even before the U.S. gave diplomatic recognition, China had begun sharing weather data, atmospheric radiation data, and satellite launch information on the USSR from Sinkiang observation bases.) The **files of Frank Press as Science and Technology Advisor** to President Carter are open to researchers. (Papers concerned strictly with his OSTP duties are archived in the National Archives at College Park, Maryland.) The records from his office, including those of Laurence H. Linden, amount to 18 boxes of paperwork (about 9 linear feet). The subjects touched on include nuclear policy, Three Mile Island, alcohol fuels and synthetic fuels, earthquake prediction, hazardous wastes reduction research, basic research in various fields of military and civilian use, satellite communications, and enhanced radiation research (neutron bomb). Some of this material is security classified and unavailable for research.

The largest set of files in the Jimmy Carter Library is the **White House Central Files (WHCF)** which is divided by topics, each signified by a two-letter abbreviation. The WHCF files in the **Atomic/Nuclear Energy division (AT)** include reports and correspondence on nuclear proliferation, the Clinch River Breeder Reactor, and the Three Mile Island nuclear accident. The WHCF files on **Disasters (DI)** contain correspondence between the Domestic Policy Staff and the Federal Emergency Management Administration (FEMA). FEMA was concerned with both natural and manmade disasters, and topics include oil spills, toxic wastes, Love Canal, and Three Mile Island. Natural disasters include floods, droughts, blizzards, hurricanes, and earthquakes. Much material on the volcanic explosion of Mount St. Helens and its possible effect on weather is here. Natural disasters in other countries (Romania, China, Turkey, and Pakistan) are also documented. The WHCF **Health Series (HE)** has material on air pollution, hazardous wastes, and effects on health of the eruption of Mount St. Helens, as well as cancer rates among civilians and military personal as a lingering effect of nuclear tests in the 1950s.

The WHCF **Outer Space Series (OS)** is composed of correspondence between the National Aeronautics and Space Administration and various executive offices, including the Office of Management and Budget and the National Security Council. Annual reports to Congress from the President’s staff, those to the President from his Science and Technology Adviser, progress reports on the Space Shuttle, and letters from the public are here. The letters include some from UFOlogists, since

Carter had made the campaign promise to make public any reports on aliens and flying saucers, and this evoked a large response among UFO fans.

The WHCF **Sciences Series** (SC) consists primarily of correspondence to the President and responses by the Domestic Policy Staff. Some subjects covered are renewable energy sources (solar, geothermal, ocean thermal, biomass), atmospheric investigation projects (climate changes, acid rain, storm predictions), and oceanographic activities. Other topics include proposals and reports on nuclear arms proliferation, basic research in science and technology, and correspondence on a National Solar Energy Institute.

Perhaps the leading accomplishment of the Carter administration in scientific fields was the creation of a cabinet-level Department of Energy in 1977. The **James R. Schlesinger papers** deal with the political, organizational, and scientific issues in the creation of the DOE. Files at the Carter Library deal only

with the setting up of the agency, while the working files of the DOE are stored at the National Archives. The DOE was partly the result of reorganizing several smaller and overlapping agencies, and partly the result of trying to solve the energy crunch of the late 1970s. Many proposals, both political and technological, by public and private groups, are available here.

Material on the above topics includes technical reports, administrative memoranda, and correspondence on legislation linked to the various projects. The Carter Library has been open to researchers since 1987. Approximately half the files of the Carter White House have been processed and are now available to researchers. The Carter Presidential Library is located in Atlanta, Georgia. A Web site is maintained at www.jimmycarterlibrary.org. The e-mail address is Carter.Library@nara.gov. Postal inquiries should be addressed to Jimmy Carter Library, 441 Freedom Parkway, Atlanta, GA 30307.

Other News of Interest

A **Society for the History of Astronomy** is being formed in Britain. To find out more about the society, visit their Web site at www.shastro.org.uk or get in touch with Stuart Williams by e-mailing him at secretary@shastro.org.uk.

The **California Institute of Technology** and the **Francis Bacon Foundation** are pleased to request nominations for the first Francis Bacon Award in the history of science, the history of technology, or historically-engaged philosophy of science. The Francis Bacon Prize is offered biannually in the amount of \$20,000, and will be awarded to an outstanding scholar whose work continues to have a substantial impact on any of the three fields. Deadline is **December 1, 2003**. For more information, please visit www.hss.caltech.edu/humanities/fbaward, e-mail: clare@hss.caltech.edu or write to Clare Brown, Secretary to the Bacon Committee, Baxter 228-77, Caltech, Pasadena, CA 91125.

A number of new **Web exhibits** on the **history of physics, astronomy, and geophysics** have appeared in the last year and some older ones have come to our attention. Our links page is updated regularly as we add new items. We also must delete some old ones that are no longer available, and give new URLs (Web addresses) for those that relocate. We suggest you check our links page about twice a year for such items, which we do not list in this Newsletter. See www.aip.org/history/web-link.htm.

Center for History of Physics E-Mail List: Stay updated by joining our e-mail list. Learn when new Web exhibits are posted online, when the *Newsletter* is ready, when we've found new resources and links, added new syllabi and more. Notices are always brief and never contain advertising. Your e-mail address will never be shared outside the History Center. For more information, please visit www.aip.org/history/web-news.htm.



George Uhlenbeck and Abraham Pais working on a paper together. Photo courtesy AIP Emilio Segrè Visual Archives, Uhlenbeck Collection.

Abraham Pais Award for the History of Physics Established

The American Physical Society (APS) through its Forum on the History of Physics and the American Institute of Physics (AIP) through its Center for History of Physics have established an award to recognize outstanding scholarly achievements in the history of physics, named after the late physicist and historian Abraham Pais. The Forum and Center have achieved the initial fundraising goal of \$100,000 to endow the Award; it is hoped to increase this endowment. To be given annually starting in 2005, the Award will consist of \$5,000 and a certificate citing the contributions of the recipient, plus an allowance for travel to an APS meeting to receive the award and deliver an invited lecture on the history of physics.

The Award fund will be administered by APS through a five-member selection committee which will include an AIP representative. Information on selection criteria, and guidelines for nominators, are posted on the Web at www.aps.org/praw/history.

MEETINGS

■ **The American Meteorological Society's Presidential History Symposium**, held on **January 13, 2004** in Seattle, Washington is calling for papers. The 84th Annual Meeting is being organized around the broad theme of "prediction." This past century, the overarching challenge to the atmospheric and related sciences has been to predict weather and climate. These sciences, perhaps more than any others, are tested on a daily basis through the forecasting of the various elements of the Earth's environment. Numerical weather prediction is widely regarded to be among the foremost scientific accomplishments of the 20th century. Especially significant advances have been made in atmospheric and oceanic forecasting of weather and climate systems over the past 20 years. For more information, please visit www.ametsoc.org or contact the History Committee Chairperson, Dr. Kristine Harper, 946 NW Circle Blvd., #306, Corvallis, OR 97330-1410, e-mail: kharper@proaxis.com.

■ **The American Physical Society's Forum on the History of Physics** invites scholars to present papers at the APS annual meeting which will be held **May 1-4, 2004** in Denver, Colorado. Graduate students, young scholars and non-APS members are especially encouraged to attend; the APS meeting itself provides an opportunity to meet notable scientists and science managers. Funding may be able to defray costs of travel and registration fees, especially for graduate students. The deadline for abstract submissions is **January 9, 2004**. Scholars who wish to give papers that present the history of physics and its interaction with culture, education, and physics research should

Below: Ether-Drift Interferometer, as used by Morley and Miller in 1903-1905 — The experiments made with this instrument, in Cleveland, gave negative results: no ether-drift was found. Einstein called these experiments decisive and based his entire theory upon the failure to measure an ether-drift by Michelson and Morley in 1887, and by Morley and Miller in 1904. From: Gravitation Versus Relativity, by Charles Lane Poor (New York; London: G.P. Putnam's Son's, 1922). Photo courtesy AIP Emilio Segrè Visual Archives.



contact Patrick McCray (pmccray@history.ucsb.edu). This should be done well before the January deadline to ensure proper submission of abstracts via the APS's new web-based system. Non-APS members who wish to present papers are welcome and arrangements will be made on an individual basis to help with the abstract submission process. Additional information about the APS and its meetings is at www.aps.org.

■ **From Beaufort to Bjerknes and Beyond: Critical Perspectives on Observing, Analyzing and Predicting Weather and Climate, July 5-9, 2004**, Polling Monastery, Weilheim, Germany. The **International Commission on History of Meteorology (ICHM)** calls for papers for an international conference. The year 2004 marks the anniversary of a number of important developments in atmospheric and marine sciences, including the wind force scale of Admiral Francis Beaufort (1804), the founding of the British Met Office (1854), publication of the paper "Weather forecasting as a problem in mechanics and physics" by Vilhelm Bjerknes (1904), and the establishment of operational numerical weather prediction (1954). Proposals for critical, historically-informed papers and sessions on understanding, predicting, and controlling weather and climate may be sent to any member of the program committee: Cornelia Lüdecke (C.Luedecke@lrz.uni-muenchen.de), Jim Fleming (jrflem@colby.edu), Tsukahara Togo (eug@cs.cla.kobe-u.ac.jp), or Vladimir Jankovic (vladimir.jankovic@man.ac.uk). The conference will be held in the baroque-style former monastery of Polling,



Above: Einstein, Paul Ehrenfest, Paul Langevin, Heike Kammerlingh-Onnes, and Pierre Weiss at Ehrenfest's home, Leyden, the Netherlands. From Einstein, His Life and Times, by Philipp Frank (New York: A.A. Knopf, 1947). Photo courtesy AIP Emilio Segrè Visual Archives.

an idyllic village between Munich and the Bavarian Alps. It is near Hohenpeißenberg, which has maintained a continuous meteorological record since 1781, when it was a station of the Societas Meteorologica Palatina. Today the mountain hosts a meteorological observatory of Deutscher Wetterdienst and a basis station of the Global Atmospheric Watch. For more information, please contact Cornelia Lüdecke or Hans Volkert (Hans.Volkert@dlr.de). For more information, please visit www.meteohistory.org for conference updates.

■ **Fifth British-North American Joint Meeting of the British Society for History of Science, the Canadian Society for History and Philosophy of Science, and the History of Science Society, August 5-7, 2004**, Halifax, Nova Scotia, Canada. The program committee invites proposals for sessions on the theme of "Circulation Knowledge." The theme has been chosen to encourage contributions on the circulation of scientific knowledge between North America and Europe, and between these regions and elsewhere in the world; the formation of scientific knowledge through geographical displacement in the course of exploration, migration, trade, and fieldwork; the circulation of knowledge among scientific disciplines and research fields, and between science and other cultural domains; the circulation of scientific knowledge between expert practitioners and public audiences; the formation of scientific knowledge by translation between different languages, media, and forms of publication; and the part played in the creation of scientific knowledge by circulating texts, metaphors, images, objects, and artifacts. For further details, visit www.hssonline.org or contact the HSS Executive Office at info@hssonline.org or the members of the program committee: Geoff Bunn (bunng@hope.ac.uk), Lesley Cormack (lesley.cormack@ualberta.ca), or Jan Golinski (jan.golinski@unh.edu).

■ **The Matthew Fontaine Maury Workshop in the History of Oceanography** will be held from **September 1 to 3, 2004**, in Barrow, Alaska (dates are still tentative). The theme for Maury IV is "The History of Polar Oceanography". Historians of science, maritime, environmental, military, and other historical specialists who deal with the ocean sciences are invited to submit paper proposals. The Maury Workshops make every effort to cover the travel, lodging, and food expenses of its participants. Participation is by invitation only, based on acceptance of a paper abstract and short c.v., due by **December 1, 2003**. Completed papers are due by **August 1, 2004**, for pre-circulation. For information, please contact Dr. Helen Rozwadowski at helen.rozwadowski@uconn.edu or Dr. David van Keuren at vankeuren@utopia.nrl.navy.mil.

■ **The 22nd International Congress of History of Science, July, 2005** will be held in Beijing, China. For additional information, please visit: <http://2005bj.ihns.ac.cn>.

GRANTS & FELLOWSHIPS

■ The Center for History of Physics of the American Institute of Physics has a program of grants-in-aid for research in the



Young Max Planck. From Schöpfer des neuen Weltbildes: grosse Physiker unserer Zeit. Bonn: Athenäum-Verlag, 1952. Photo courtesy AIP Emilio Segrè Visual Archives.

history of modern physics and allied sciences (such as astronomy, geophysics, and optics) and their social interactions. Grants can be up to \$2500 each. They can be used only to reimburse direct expenses connected with the work. Preference will be given to those who need part of the funds for travel and subsistence to use the resources of the Center's Niels Bohr Library in College Park, Maryland (easily accessible from Washington, DC), or to microfilm papers or to tape-record oral history interviews with a copy deposited in the Library. Applicants should either be working toward a graduate degree in the history of science (in which case they should include a letter of reference from their thesis adviser), or show a record of publications in the field. To apply, send a vitae, a letter of no more than two pages describing your research project, and a brief budget showing the expenses for which support is requested to: Spencer Weart, Center for History of Physics, American Institute of Physics, One Physics Ellipse, College Park, MD 20740; phone 301-209-3174; fax: 301-209-0882; e-mail sweart@aip.org; or visit www.aip.org/history/web-grnt.htm.

■ **The International Union of the History and Philosophy of Science/ Division of History of Science (IUHPS/DHS)** invites submissions for the first **DHS Prize for Young Scholars** to be presented in 2005. The DHS Prize will be awarded by IUHPS/DHS every four years to four young historians of science for their successful doctoral dissertations, completed after July



Drawn by Heike Kamerlingh-Onnes, view of his laboratory.



Self-Portrait of Heike Kamerlingh-Onnes.

From Het Natuurkundig laboratorium der Ruiksuniversiteit te Leiden in de jaren 1904-1922: Gedenboek aangeboden aan H. Kammerlingh Onnes, (Leiden: E. Ijdo, 1922). Photo courtesy AIP Emilio Segrè Visual Archives.

2001, which represent significant contributions to the history of science. It is distributed as one prize in each of the following fields of focus: Western civilization, Islamic civilization, Far Eastern civilization, South Asian civilization, Ancient civilizations (not included in the above categories). Submission deadline: **August 31, 2004**. To be eligible, applicants must have a doctoral degree on the subject of history of science awarded in or after July 2001. For further information, please write: IUHPS/DHS President's Office (Prof. Dr. E. Ihsano_lu), P.O. Box 24, Be_ikta_, 80692 Istanbul, Turkey; fax: 90-212-258 43 65; phone 90-212-260 07 17; e-mail: ircica@superonline.com.

■ **The Chemical Heritage Foundation** offers travel grants for research at the **Beckman Center for the History of Chemistry**, the **Othmer Library** and its associated facilities. Applicants are also encouraged to explore other resources in the Philadelphia area including the University of Pennsylvania and the American Philosophical Society. For a list of the different types of fellowship opportunities available, please see the Web site at www.chemheritage.org and click on "Grants and Awards," e-mail fellowships@chemheritage.org or write to CHF Travel Grants, Chemical Heritage Foundation, 315 Chestnut Street, Philadelphia, PA 19106; phone: 215-925-2222 x 271; fax: 215-925-1954; e-mail: travelgrants@chemheritage.org.

■ **The Andrew W. Mellon Travel Fellowship Program of the University of Oklahoma** is intended to assist scholars at both pre-doctoral and post-doctoral levels. The program is designed to provide travel expenses and a reasonable per diem to researchers who reside outside the central Oklahoma area, and who have well-defined research projects that can be served by

the holdings of the History of Science Collections. Proposals will be evaluated three times each year, with **deadlines for submission October 15, February 15, and May 15**. For information, please contact: The Andrew W. Mellon Travel Fellowship Program, The University of Oklahoma, Bizzell Library, 401 West Brooks, Room 521, Norman, OK 73019; e-mail: mogilvie@ou.edu, kmagruder@ou.edu; or visit <http://libraries.ou.edu/etc/histsci/MellonFAQ.asp>.

■ **The National Science Foundation** has issued an announcement for proposals, titled, "Societal Dimensions of Engineering, Science and Technology: Ethics and Values Studies, and Research on Science and Technology." The announcement number is NSF 97-28. Target dates for proposal submissions are **February 1 and August 1**, yearly. You can get the new program guidelines electronically by sending an e-mail to stisserve@nsf.gov. In the text of the message, write "get nsf9728.txt" and you will be sent a copy. For general information about how to get NSF materials, send a separate e-mail and in the text write "get nsf9564.txt." The NSF Home Page address is www.nsf.gov. SDEST is a program in the Division of Social, Behavioral and Economic Research in the NSF Directorate for Social, Behavioral and Economic Sciences. The WWW address for SDEST is www.nsf.gov/sbe/ses/sdest/start.htm. On that page you can click on the announcement number and for a general page of suggestions for applicants. You can find further information on Directorate and Division programs by going up the Web address chain.

■ **The Center for the History of Business, Technology, and Society, Hagley Museum and Library**, Delaware. Sponsored by

the H. B. du Pont Memorial Fund, these fellowships offer a maximum stipend of \$1500 per month and last from two to six months. Applicants must be from out-of-state, degree candidates and persons seeking support for degree. In addition, short term grants-in-aid support visits to Hagley for research in the imprint, manuscript, pictorial, and artifact collections. They are designed to assist researchers with travel and living expenses while using the collections. Stipends are for a minimum of two weeks and a maximum of eight weeks at no more than \$1000 per month. Application deadlines: **March 31, June 30, and October 31**. For further information on these or other fellowship programs and an application packet, please write to Dr. Philip Scranton, Director, Center for the History of Business Technology, and Society, Hagley Museum and Library, PO Box 3630, Wilmington, DE 19807; phone: 302-658-2400; fax: 302-655-3188; e-mail: crl@strauss.udel.edu.

■ **The US Department of Energy's "Glenn T. Seaborg Fellowship in Nuclear History"** will focus on the atomic age, from its birth to the present, and is intended to provide quality scholarship for broad public distribution. The Seaborg Fellowship is open to all recent American History majors currently enrolled in a doctoral program in the United States. To learn more, please contact Chief Historian Skip Gosling, U.S. Department of Energy, Room 7E-054 Forestal Building, 1000 Independence Ave. SW, Washington, D.C. 20585; e-mail: skip.gosling@hq.doe.gov.

■ **The American Philosophical Society** offers grants and fellowships. The deadline for Franklin Research Grants is **December 1, 2003**. Decisions are reached in late January and in March. For more information, write: Franklin Research Grants, American Philosophical Society, 104 South 5th Street, Philadelphia, PA 19106; phone: 215-440-3429, e-mail: eroach@amphilsoc.org. Deadline for the Library Resident Research Fellowships is **March 1, 2004** for decision by May. For more information, visit www.amphilsoc.org or write: Library Resident Research Fellowships, American Philosophical Society Library, 105 South 5th Street, Philadelphia, PA 19106; phone 215-440-3443; e-mail: jjahern@amphilsoc.org.

■ **The Center for History of Science at the Royal Swedish Academy of Sciences** offers stipends for scholars interested in doing archival research in the historical archives of the Royal Swedish Academy of Sciences. For further information, contact the Center for History of Science, Kunsliga Vetenskapsakadmiens, Box 50005, S-104 05 Stockholm, Sweden; e-mail centrum@cfvh.kva.se, or visit www.cfvh.kva.se.

■ **The University of Wyoming**, through its International Archive of Economic Geology, announces the availability of the Bernard L. Majewski Research Fellowship. The fellowship provides a \$2,500 stipend in support of research of archival collections at the University's American Heritage Center—a repository that has made an extensive effort to gather papers of important scientists from around the United States. For more information, contact Matthew Grafel, University of Wyoming,

International Archive of Economic Geology, PO Box 3924, Laramie, WY 82071-3924; phone 307-766-3704 or 307-766-6506.

■ **The Dibner Institute for the History of Science and Technology** invites applications to its two fellowship programs for the academic year 2004-2005: the Senior Fellows program and the Postdoctoral Fellows program. The Institute's primary mission is to support advanced research in the history of science and technology, across a wide variety of areas and a broad spectrum of topics and methodologies. The deadline for receipt of applications for 2004-2005 is **December 31, 2003**. For further information, please visit <http://dibinst.mit.edu> or write: Trudy Kontoff, Program Coordinator, Dibner Institute for the History of Science and Technology, MIT E56-100, 38 Memorial Drive, Cambridge, MA 02139; phone: 617-253-6989; fax: 617-253-9858; e-mail: dibner@mit.edu

■ **California Institute of Technology Biot Archives Research Funds**. The Maurice A. Biot Archives Fund and other funds provided by the Archives offer research assistance up to \$1000 to use the collections of the Archives of the California Institute of Technology. For the Biot award, preference will be given to those working in the history of technology, especially in the fields of aeronautics, applied mechanics and geophysics. For further information on holdings and on-line resources, please visit www.caltech.edu/~archives or write: Archivist, 015A-74, California Institute of Technology, Pasadena, CA 91125. The application deadline is **December 31 and June 30** of each year.

■ Each year, the **Bakken Library and Museum in Minneapolis** offers Visiting Research Fellowships and Research Travel Grants for the purpose of facilitating research in its collection of books, journals, manuscripts, prints, and instruments. The focus of the Bakken's collection is on the history of electricity and magnetism and their applications in the life sciences and medicine. Significant holdings include the works of natural philosophers, scientists, physicians, electro-therapists, and electrophysiologists of the 18th, 19th, and early 20th centuries. Related materials include mesmerism and animal magnetism, 19th-century ephemera concerning alternative electromedical therapies, and trade catalogs. The instrument collection includes electrostatic generators, magnetoelectric generators, induction coils, physiological instruments, recording devices, and accessories. Deadline for all 2004 applications is **February 16, 2004**. For more information, please visit the Bakken Library and Museum's Web site at <http://thebakken.org>, for more details, or contact Elizabeth Ihrig, Librarian, The Bakken Library and Museum, 3537 Zenith Avenue South, Minneapolis, MN 55416, USA; phone: 612-926-3878, x227; Fax: 612-927-7265; e-mail: ihrig@thebakken.org.

"The historical approach to understanding of scientific fact is what differentiates the scholar in science from the mere experimenter."

—E. G. Boring

Recent Acquisitions of the Niels Bohr Library

BOOKS

This year the Niels Bohr Library was fortunate in receiving a large number of valuable book donations, significantly adding to the size and scope of the collection. It is the thoughtful consideration of our donors that has made the library outstanding in its field. One welcome gift was a collection of natural philosophy and physics textbooks from **Thomas W. Sills**. A large collection of books donated by **Milton Katz**, including *A Treatise on Optics* by David Brewster, significantly enhanced the library's coverage of optics. **Elroy O. LaCasce** and **David Roberts** have made several much-appreciated contributions to the collection from their libraries, as has **Charlie Holbrow**, who generously donated a large collection of textbooks — one of the first, but surely not the last, additions in this medium, whose archival durability remains under study. Finally, the **United States Naval Observatory Library** (an outstanding repository for astronomical books of all eras) kindly allowed us to take a number of astronomy books that were duplicates or no longer needed there.

The Niels Bohr Library is also extremely grateful for donations of books from **Marc H. Brodsky**, **William Bigler**, **Stephen G. Brush**, and **Gerald Holton** as well as **Bertram Schwarzschild**, **Edward Lee**, and **Patrick McCray**.

As usual, we are also purchasing hundreds of new and used books thanks to help from the Friends of the Center for History of Physics, and especially the charitable endowment from the Brodsky Foundation.

PHOTOS

We have received donations of photographs from **Miriam Sarachik**, **Abner Shimony**, **Charles Holbrow**, **William Brinkman**, **Robert Dickinson**, **Herbert Ueda**, **David Rubincam**, **Chester C. Langway, Jr.** and **Syukuro Manabe**. We continue to receive portraits as requested from the **AIP Member Society Presidents** for the Gallery and addition to the archives. **Malcolm Tarlton** donated a stamp of **Niels Bohr**, and **James Warden** sent us an artistic shot of **Abdus Salaam** at the Oriental Institute in Chicago. Photographs from the **William F. Meggers Collection** are being set aside as it is processed and will be catalogued into the photo collection when it is finished. We have also scanned over 300 photographs of illustrations in the brittle books that were chosen for the microfilming project, and added these scans to the photo collection.

MANUSCRIPT MATERIALS

Our collections continue to grow with new and interesting additions sent by old friends and new supporters. A good example is a microfilm copy of the Laboratory records and

notebooks of the prominent physicist **C. T. R. Wilson** for the years 1895-1940, received from the Royal Society (4 reels). Our attention was drawn to these fascinating notebooks by Earle Williams of MIT, and the microfilming was funded by AIP. A more unusual example of additions is the records of the **Cleveland Physics Society** from the years 1945-1968, the year the group disbanded and joined the Ohio Physical Society. These were given to us by **David G. Proctor**, who served as both Secretary and President of the group (0.25 lin. ft.). The **History of AURA (Association of Universities for Research in Astronomy)** project records, consisting of eighty oral interviews in tape and transcript form, plus related documentation, were donated by **Frank K. Edmondson**. This collection dates from 1978 through 1991, and covers both Kitt Peak National Observatory and Cerro Tololo Inter-American Observatory (3.0 lin. ft.). We received the 2003 essays submitted to the **Gravity Research Foundation** for their annual prize from **George Rideout** (0.5 lin. ft.). **Gerald Holton** was the generous donor of some additions to our records on the **Project on the History of Recent Physics** dating from 1962-1971 (0.5 lin. ft.).

The **Conference on the Foundations of Quantum Mechanics** at Xavier University took place in 1962. In 2002 it was celebrated with the reproduction of the transcripts as PDF files on CD-ROM and titled **Commemorating the 40th Anniversary: 1962-2002**. We received two copies from **John B. Hart** and **Joseph Brinkman**. The Library is now regularly receiving and storing "archival" materials in CD-ROM format, although the archival durability of this medium remains under study, and it is likely that significant work will be needed eventually to ensure that such materials can be read indefinitely into the future.

In the past year we've received some new additions to various records of AIP member societies. These include records of the **American Astronomical Society, Solar Physics Division** for 1977-1996 donated by **John H. Thomas** (3.5 lin. ft.). **W. Lawrence Croft** thoughtfully sent us some letters from 1972-1976 as part of the records of the **American Physical Society, Southeastern Section** (19 pp.). Records of 2001 for the **American Vacuum Society** arrived from **Yvonne Towse** (1.0 lin. ft.). The Niels Bohr Library is also, of course, the repository for AIP's own records. From **AIP's Office of the Executive Director**, we retrieved files of the **Physics Management Fellows** from **Margaret Wiley** from the years 1995-2000 (4.0 lin. ft.).

A collection of **Biographical materials on John Aloysius O'Keefe** from the years 1938-2003 came to us from **David Rubincam** (0.25 lin. ft.). **Mark Montroll** sent us a set of notes for a lecture by **Richard Feynman**. The notes on Feynman's "**A New Approach to Quantum Electrodynamics**" came from a summer symposium at the University of Michigan, where they were taken down by **Morton Fuchs** and **R. J. Riddell, Jr.** in 1949 (57 pp.). We also received **Biographical materials and writings** of

George P. Woollard from 1973-2003, which were donated by Valerie M. Godley (1 folder).

MANUSCRIPT BIOGRAPHIES AND INSTITUTIONAL HISTORIES

Our Manuscript Biographies Collection continues to acquire unusual and unique materials. AIP's former Executive Director **Bill Koch** sent us a copy of his family history: "**Their Family Story: Bill and Becky Koch**" both in print and on CD-ROM (2002; 1 vol.; 1 CD-ROM) — another example of this new "archival" format. From **Friedrich Buch** we received a transcript of an address given by **Hans Reiche** to the Albert Einstein Society in Bern, Switzerland, titled "**My Recollection of Einstein**" (1990; 10 pp.). **Al Wattenberg** donated a transcript of a colloquium on the **Centennial of the birth of Enrico Fermi** (2002; 20 pp.). We received a copy of a **Jurusan Fisika catalog**, an Indonesian physics department course listing (in Indonesian) from **Richard L. Hanau** (1999; 34 pp.). The **History of the Society of Rheology from 1924-1944**, compiled by **Eugene C. Bingham** of Lafayette College was donated by **John C. Miller** (1944; 10 pp.).

OTHER AUDIO-VISUAL MATERIALS

Our Audio-Visual collection has received a few interesting additions in the last year. These include a videotaped oral history interview: **Hans Bethe and David Mermin Discuss the Early History of Solid State Physics**, with a cassette of the audio track, February 25, 2003, donated by **Glen Palmer** of Cornell University. **Ron Meininger** of NIST sent us two videocassettes. **Stone Cold Science: Bose-Einstein condensation and the weird world of physics a billionth of a degree from absolute zero** is a lecture at NIST by Nobel laureate **Eric Cornell** in 2002. The second tape is of **William D. Phillips**, who gave a colloquium at NIST on January 24, 1998 entitled **Almost Absolute Zero: the story of laser cooling and trapping of atoms**. We received a

videocassette copy of a television production entitled **Radio-active: The Story of Marie Curie** (2003) from Judy Ruzlylo of Episode 18 Productions.

FINDING AIDS

We no longer receive as many printed or typescript finding aids as in the past, for archives are increasingly making them available online. Our International Catalog of Sources (ICOS) provides links to the online finding aids of many collections in physics and allied fields; it can be reached from our Web site at www.aip.org/history.

We did receive some additions to our collection of printed and typescript finding aids, a collection that is especially useful to people who visit the Niels Bohr Library at an early stage in planning their research. The Special Collections of the Milton S. Eisenhower Library at the Johns Hopkins University has sent us the finding aids for three collections: the **Papers of William G. Fastie, 1916-2000 (1937-1997)**; the **George Stock Benton Collection (1950-1989)**; and the **Papers of Leon Madansky, 1923-2000 (1941-1997)**. And Center staff completed the finding aid for our own **Multi-Institutional Collaboration projects I, II, and III**. The finding aid is currently available in paper format, and will be made available electronically next year.

For the following, we did not receive printed copies, but rather references (URLs) to their locations online. You can find the URLs as links in the version of this article on our Web site, at www.aip.org/history/newsletter/fall2003/recent.htm, as well as in the ICOS.

Six new finding aids from State University of New York at Albany Archives are available electronically. They are the papers of **Vincent J. Schaefer**, **Alfred H. Woodcock**, **Eugene McLaren**, **Roger Cheng**, and **Raymond Falconer** as well as the **State University of New York at Albany records, 1967-1971**. Churchill College has completed the finding aid for the **Francis Thomas Bacon** papers. **Princeton University** has made two finding aids available from their Science Department: the records of the **Department of Physics** and of the **Astrophysical Sciences Department**. The **William A. Higinbotham** papers finding aid is available online from the Charles Babbage Institute, Center for the History of Computing at the University of Minnesota Libraries. The University of London has made available the finding aid for the **Doris L. Reynolds** papers. The finding aid for the papers of **Sir Bernard Lovell** is made available by the Imperial War Museum in London. There is a finding aid for the papers of **Sir Arthur Vick**, housed at University of Warwick, England. An inventory for the records collection of the **British Society of Rheology** (an ongoing collection beginning in 1940) is now available. The papers of **Abdus Salam**, located in Trieste, Italy, have an online finding aid.



T. A. Edison ("The Old Man"), playing baseball, circa 1920. Photograph by W.F. Meggers, photo courtesy AIP Emilio Segrè Visual Archives, W.F. Meggers Collection.



Meggers at work, National Bureau of Standards, circa 1919. Photograph by W.F. Meggers, photo courtesy AIP Emilio Segrè Visual Archives, W. F. Meggers Collection.

Recent Publications of Interest

compiled by Tanya Levin

Annals of Science, vol. **60**, no. 2 (April 2003) includes Antoni Malet, "Kepler and the Telescope," 107-136. Vol. **60**, no. 3 (July 2003) features Buhm Soon Park, "'The Hyperbola of Quantum Chemistry': The Changing Practice and Identity of a Scientific Discipline in the Early Years of Electronic Digital Computers, 1945-1965," 219-248.

Archive for History of Exact Sciences, vol. **57**, no. 1 (January 2003) includes Shaul Katzir, "The Discovery of the Piezoelectric Effect," 61-91. Vol. **57**, no. 4 (May 2003) features Bruce Pourciau, "Newton's Argument for Proposition 1 of the Principia," 267-311, and J. Bruce Brackenridge, "Newton's Easy Quadratures 'Omitted for the Sake of Brevity,'" 313-336. Vol. **57**, no. 5 (July 2003) includes A.E.L. Davis, "The Mathematics of the Area Law: Kepler's Successful Proof in Epitome Astronomiae Copernicanae (1621)," 355-393, and Helge Kragh, "Magic Number: A Partial History of the Fine-Structure Constant," 395-431.

The British Journal for the History of Science, vol. **36**, no. 1 (March 2003) features David N. Livingstone, "Science, Religion and the Geography of Reading: Sir William Whitla and the Edi-

torial Staging of Isaac Newton's Writings on Biblical Prophecy," 27-42. Vol. **36**, no. 2 (June 2003) includes Ron Naylor, "Galileo, Copernicanism and the Origins of the New Science of Motion," 151-181, and Rienk Vermij, "The Formation of the Newtonian Philosophy: The Case of the Amsterdam Mathematical Amateurs," 183-200.

Bulletin of the Atomic Scientists, vol. **59**, no. 1 (Jan/Feb 2003) includes William Bur and Jeffrey Kimball, "Nixon's Nuclear Play," 28-37. Vol. **59**, no. 2 (March/April 2003) includes Dan Stober, "No Experience Necessary," 56-63. Vol. **59**, no. 3 (May/June 2003) features Peter Hayes and Nina Tannenwald, "Nixing Nukes in Vietnam," 52-59, and Arjun Makhijani, "Nuclear Targeting: The First 60 Years," 60-65. Vol. **59**, no. 4 (July/August 2003) includes Berjt Carlsen, "How Ulam Set the Stage," 46-51.

Centaurus, vol. **44**, no. 3-4 (2002) features M. Nakane and C.G. Fraser, "The Early History of Hamilton-Jacobi Dynamics 1834-1837," 161-227, and J.R. Christianson, "The Legacy of Tycho Brahe," 228-247.

CERN Courier, vol. **43**, no. 4 (May 2003) includes Daniel Denegri, "When CERN Saw the End of the Alphabet," 26-30. Vol. **43**, no. 5 (June 2003) features Shawna Williams, "The Ring on the Parking Lot," 16-18. Vol. **43**, no. 6 (July/August 2003) includes "The Legacy of the Bubble Chamber," 19-20.

Endeavour, vol. **27**, no. 1 (March 2003) includes Volker R. Remmert, "In the Sign of Galileo: Pictorial Representation in the 17th-Century Copernican Debate," 26-31.

Historical Studies in the Physical and Biological Sciences, vol. **33**, no. 2 (2003) includes Seiya Abiko, "On Einstein's Distrust of the Electromagnetic Theory: The Origin of the Light-Velocity Postulate," 193-216, Joseph-James Ahern, "'We Had the Hose Turned on Us!': Ross Gunn and the Naval Research Laboratory's Early Research into Nuclear Propulsion, 1939-1946," 217-236, Laura A. Bruno, "The Bequest of the Nuclear Battlefield: Science, Nature, and the Atom During the First Decade of the Cold War," 237-260, H.M. Collins, "LIGO Becomes Big Science," 261-298, Arne Schirrmacher, "Experimenting Theory: The Proofs of Kirchhoff's Radiation Law Before and After Planck," 299-336, Stefan L. Wolff, "Physicists in the 'Krieg der Geister': Wilhelm Wien's 'Proclamation,'" 337-368, Chen-Pang Yeang, "The Study of Long-Distance Radio-Wave Propagation, 1900-1919," 369-404.

History and Technology, vol. **19**, no. 2 (2003) features Stephen Twigg, "A Baffling Experience: Technology Transfer, Anglo-American Nuclear Relations, and the Development of the Gas Centrifuge, 1964-1970," 151-163.

History of Science, vol. **41**, part 2, no. 132 (June 2003) includes Helge Kragh and Robert W. Smith, "Who Discovered the Expanding Universe?," 141-162, and Katrina Dean, "Inscribing Settler Science: Ernest Rutherford, Thomas Laby and the Making of Careers in Physics," 217-240.

ISIS, vol. **94**, no. 1 (March 2003) includes Catherine Westfall, "Rethinking Big Science: Modest, Mezzo, Grand Science and the Development of the Bevalac, 1971-1993," 30-56.

Journal for the History of Astronomy, vol. **34**, part 1, no. 114 (Feb. 2003) features Michael Hoskin, "Herschel's 40 ft. Reflector: Funding and Functions," 1-32. Vol. **34**, part 2, no. 115 (May 2003) includes Simon Olling Rebsdorf, "Bengt Strömgren: Growing Up with Astronomy, 1908-1932," 171-200.

Journal of Astronomical History and Heritage, vol. **6**, no. 1 (June 2003) includes Donald E. Osterbrock, "Don Hendrix, Master Mount Wilson and Palomar Observatories Optician," 1-12, Gilbert E. Satterthwaite, "Airy's Zenith Telescopes and the Birth-Star of Modern Astronomy," 13-26, Mary T. Brück, "An Astronomer Calls: Extracts from the Diaries of Charles Piazzi Smyth," 37-45, and Mary T. Brück, "The C41/ICHA Transits of Venus Working Group 2: Lord Lindsay's Transit of Venus Expedition to Mauritius 1874," 64.

Notes and Records of The Royal Society of London, vol. **57**, no. 1 (2003) features R.W. Jones "Dalton's Unfortunate Choice," 15-33, J.S. Rowlinson, "Le Sage's *Essai de Chymie Mécanique*," 35-45, and N.N. Greenwood and J.A. Spink, "An Antipodean Laboratory of Remarkable Distinction," 85-105.

Physics in Perspective, vol. **5**, no. 1 (2003) includes A. Schirrmacher, "Planting in his Neighbor's Garden: David Hilbert and Early Göttingen Quantum Physics," 4-20, H. Goenner, "Albert Einstein and Friedrich Dessauer: Political Views and Political Practice," 21-66, L. Hoddeson and A. Kolb, "Vision to Reality: From Robert R. Wilson's Frontier to Leon M. Lederman's Fermilab," 67-86, and B. Bederson, "Physics and New York City," 87-121. Vol. **5**, no. 2 (2003) features R.H. March, "Physics at the University of Wisconsin: A History," 130-149, G. Hon, "From Propagation to Structure: The Experimental Technique of Bombardment as a Contributing Factor to the Emerging Quantum Physics," 150-173, and J.R. Goodstein, "A Conversation with Lee Alvin DuBridg - Part I," 174-205.

Physics Today, vol. **56**, no. 7 (July 2003) includes Lawrence Badash, "Marie Curie: In the Laboratory and on the Battlefield," 37-43. Vol. **56**, no. 8 (August 2003) includes Spencer Weart, "The Discovery of Rapid Climate Change," 30-37.

Physics-USpekhi, vol. **46**, no. 4 (April 2003) features S.K. Betyaev "On the History of Fluid Dynamics: Russian Scientific Schools in the 20th Century," 405-432.

Physics World, vol. **16**, no. 1 (Jan. 2003) includes Gary Taubes, "Carlo Rubbia and the Discovery of the W and Z," 23-28. Vol. **16**, no. 3 (March 2003) includes Hugh Huxley, "The Cavendish Laboratory and DNA," 29-36.

Science in Context, vol. **16**, no. 1/2 (June 2003) includes Silvan S. Schweber, "J. Robert Oppenheimer: Proteus Unbound," 219-242, and Cathryn Carson, "Objectivity and the Scientist: Heisenberg Rethinks," 243-269.

Science & Education, vol. **12**, (2003) includes Gerald Holton, "What Historians of Science and Science Educators Can Do for One Another," 603-616.

Studies in History and Philosophy of Science, vol. **34A**, no. 2 (June 2003) features Paolo Palmeri, "Mental Models in Galileo's Early Mathematization of Nature," 229-264, and Maria Rosa Antognazza, "Leibniz and the Post-Copernican Universe. Koyré Revisited," 309-327.

Studies in History and Philosophy of Modern Physics, vol. **34B**, no. 2 (June 2003) includes Peter Holland and Harvey R. Brown, "The Non-relativistic Limits of the Maxwell and Dirac Equations: The Role of Galilean and Gauge Invariance," 161-187, Steven French, "Scribbling on the Blank Sheet: Eddington's Structuralist Conception of Objects," 227-259, Michael Stöltzner, "The Principle of Least Action as the Logical Empiricist's *Shibboleth*," 285-318, and E.B. Davies, "Quantum Mechanics Does Not Require the Continuity of Space," 319-328. Vol. **34B**, no. 3 (Sept. 2003) features Charles H. Bennett, "Notes on Landauer's Principle, Reversible Computation, and Maxwell's Demon," 501-510.

Technology and Culture, vol. **44**, no. 1 (Jan. 2003) includes Frank N. Laird, "Constructing the Future: Advocating Energy Technologies in the Cold War." Vol. **44**, no. 2 (April 2003) features Thomas C. Lassman, "Industrial Research Transformed: Edward Condon at the Westinghouse Electric and Manufacturing Company, 1935-1942."

There are ancient cathedrals which, apart from their consecrated purpose, inspire solemnity and awe. Even the curious visitor speaks of serious things, with hushed voice... The labor of generations of architects and artisans has been forgotten, the scaffolding erected for their toil has long since been removed, their mistakes have been erased, or have become hidden by the dust of centuries. Seeing only the perfection of the completed whole, we are impressed as by

some superhuman agency. But sometimes we enter such an edifice that is still partly under construction; then the sound of hammers, the reek of tobacco, the trivial jests bandied from workman to workman, enable us to realize that these great structures are but the result of giving to ordinary human effort a direction and a purpose.... Science has its cathedrals, built by the efforts of a few architects and of many workers.

—Gilbert N. Lewis and Merle Randall

Documentation Preserved

Compiled by *Katherine Hayes*

This is our regular survey of archives and other repositories with information for historians and others. Many of these are new deposits not yet processed, but we also include collections that were accessioned years ago but not previously reported here. Please contact the repository for information on restrictions to access.

All the information here is entered in our online International Catalog of Sources for History of Physics and Allied Sciences. PLEASE NOTE: This column is published in its full extended form, as in previous years, as part of our online newsletter. Please see the latest issue online at www.aip.org/history/web-news.htm.

ABDUS SALAM INTERNATIONAL CENTRE OF THEORETICAL PHYSICS. LIBRARY. STRADA COSTIERA, 11-34014, TRIESTE, ITALY. CONTACT: LIBRARIAN.

Papers of **Abdus Salam, 1926-1996**. Papers transferred to International Centre of Theoretical Physics from National Cataloguing Unit for the Archives of Contemporary Scientists (NCUACS).

More UK Survey Records

This is the 2nd set of results from the survey of archival repositories in the United Kingdom that we are sponsoring jointly with the National Cataloguing Unit for the Archives of Contemporary Scientists, University of Bath.

BRITISH LIBRARY. DEPARTMENT OF MANUSCRIPTS. 96 EUSTON ROAD, LONDON NW1 2DB, ENGLAND. CONTACT: ARCHIVIST.

Addition to the Papers of **Charles Babbage, 1791-1871**. 1806-1871. 24 volumes.

Papers of **Arthur James Balfour, 1st Earl of Balfour, 1848-1930**. 1868-1936. 280 volumes; 1348 lin. cm. Admission with Reader's Pass, obtainable by personal applicants.

Notebooks, etc. of **D. E. (David Edward) Hughes, 1831-1900**. 1860-1897. 40 lin. cm. (11 volumes). Admission by Reader's Pass, obtainable by personal applicants.

Letters of scientists, mainly to **John Tatlock**. 1858-1908. 23 folios. Admission by Reader's Pass, obtainable by personal applicants.

CAMBRIDGE UNIVERSITY LIBRARY. DEPARTMENT OF MANUSCRIPTS AND UNIVERSITY ARCHIVES. WEST ROAD, CAMBRIDGE, CH3 9DR, ENGLAND. CONTACT: ARCHIVIST.

Experimental notebooks on ice of **J. (James) McConnell, 1860-1890**. 1887-1974. 1 box. Open for consultation by holders of a Reader's Ticket valid for the Manuscripts Reading Room.

CHURCHILL COLLEGE. ARCHIVES CENTRE. CAMBRIDGE CB3 0DS, ENGLAND. CONTACT: ARCHIVIST.

Papers on the development of radar of **E. G. Bowen**. 1935-1978. 12 boxes. Open to researchers with a prior appointment and two forms of identification.

Papers of **B. C. Browne**. 1949. 1 file. Open to researchers with a prior appointment and two forms of identification.

Papers of **W. E. Burcham, 1913-**. 1933-1999. 6 boxes. Collection is open for research. A prior appointment and two forms of identification are required.

Papers of **James MacDonald Cassels, 1924-1994**. 1967-1996. 5 boxes. Open to researchers with a prior appointment and two forms of identification.

Photographs and papers of **William Joseph Condren, 1900-1975**. 1939-1954. 3 boxes. The collection is open to researchers. A prior appointment and two forms of identification are required.

Papers of **V. E. (Vernon Ellis) Cosslett, 1908-1990**. 80 boxes. The majority of the collection is open for research. A prior appointment and two forms of identification are required.

Papers of **P. A. M. (Paul Adrien Maurice) Dirac, 1902-1984**. 1924-1971. 9 boxes. A prior appointment and two forms of identification are required.

Papers of **Nicholas Kemmer, 1911-1998**. 1940-1994. 6 boxes. Open to researchers with a prior appointment and two forms of identification.

Papers of **A. G. (Alfred Gavin) Maddock**. 1939-1945. 2 boxes. Collection is currently not available for research.

Papers of **William Hunter McCrea**. 62 boxes. Collection is open for research. A prior appointment and two forms of identification are required.

Papers of **B. (Bruno) Pontekorvo, 1913-1993**. 1917-1957. 2 boxes. Collection is open only to researchers who have obtained prior permission from the depositor. Contact archives.

Correspondence of **Ernest Rutherford, 1871-1937**. 1 box. Collection is open for research. A prior appointment and two forms of identification are required.

Papers of **Sir Martin Ryle, 1918-1984**. 65 boxes. Some sections of the collection are open to researchers. A prior appointment and two forms of identification are required.

Papers of **Ronald G. Stansfield**. 1936-1937. 3 files. Open to researchers with prior appointment and two forms of identification.

Memoir and papers of **William Lawrence Wilson, 1912-1993**. 1 box. Collection is open for research. A prior appointment and two forms of identification are required.

IMPERIAL WAR MUSEUM. DEPT. OF DOCUMENTS. LAMBETH ROAD, LONDON SE1 6HZ, ENGLAND. CONTACT: KEEPER.

Papers of **Sir Bernard Lovell, 1913-**. 1939-1994. 6 boxes.

Papers of **J. G. (John George) Trump, 1907-1985**. 1944-1945. 400 pages.

INSTITUTION OF ELECTRICAL ENGINEERS. ARCHIVES DEPT. SAVOY PLACE, LONDON WC2R 0BL, ENGLAND. CONTACT: ARCHIVIST.

Collection of **Sir Clifford Paterson, 1879-1948**. 1939-1945. 1 archive box. Collection not fully cataloged.

PUBLIC RECORD OFFICE (GREAT BRITAIN). KEW, RICHMOND, SURREY TW9 4DU, ENGLAND. CONTACT: ARCHIVIST.

Records of the **Aeronautical Research Council (Great Britain)**. 1909-1980.

Records of the **Atomic Weapons Research Establishment (Great Britain)**. 1944-1986.

Records of **Meteorological Office, Great Britain**. 1818-1977.

Records created or inherited by the **Ministry of Supply, Great Britain** and successors, the **Ordnance Board**, and related bodies. 1939-1988. 29 Series.

Records of the **National Physical Laboratory (Great Britain)**. 1902-1993.

Records of the **Science and Engineering Research Council (Great Britain)**. 1956-1981.

Records of the **United Kingdom Atomic Energy Authority** and its predecessors. 1939-1999.

ROYAL HOLLOWAY COLLEGE LIBRARY. UNIVERSITY OF LONDON. EGHAM HILL, EGHAM, SURREY, ENGLAND. CONTACT: COLLEGE ARCHIVIST.

Papers of **William Hunter McCrea, 1904-1999**. 1935-1992. 45 large boxes. Open to all registered users of the Royal Holloway Archives.

ROYAL INSTITUTION OF GREAT BRITAIN. LONDON, ENGLAND. CONTACT: KEEPER OF COLLECTIONS.

Papers of **Sir George Porter, 1920-**. 1938-1999. 121 boxes.

ROYAL SOCIETY. LIBRARY. 6 CARLTON HOUSE TERRACE, LONDON SW1Y 5AG, ENGLAND. CONTACT: MRS. J. M. CORDON.

Papers of **John Canton, 1718-1772**. 1740-1772. 3 lin. ft.

Papers of **P. A. M. (Paul Adrien Maurice) Dirac, 1902-1984**. 1953-1981. 1 box.

Papers of **Sir Alfred Charles Glyn Egerton, 1886-1959**. 1898-1970. 27 lin. ft.

SCIENCE MUSEUM (GREAT BRITAIN). LIBRARY. IMPERIAL COLLEGE ROAD, LONDON SW7 5NH, ENGLAND. CONTACT: ARCHIVIST.

Draft report on certain optical and other instruments in the Paris [Universal] Exhibition by **Sir David Brewster, 1781-1868**. 1856. 53 pp., plus title page, on thirty one leaves; 23.5x19 cm. Holograph signed.

Letters to G. D. Liveing by **James Dewar (1842-1923)**. 1895-1907.

◀ MYSTERY PICTURE

This photo is from the landmark National Academy of Sciences' Conference on Quantum Mechanics held at Shelter Island, NY in June 1947. The conference is sometimes called the birthplace of modern quantum electrodynamics. Left to right: D. MacInnes, Karl Darrow, _____, Robert Oppenheimer, Victor Weisskopf.

Can anyone identify the mystery man in the middle?



Records of **Falmouth Observatory**. 1887-1896. 1 file.

9 letters to G. D. Liveing by **Sir William Huggins (1824-1910)**. 1904-1906. 9 leaves. Holograph signed.

Papers of **Anthony Nemet, 1909-**. 1955-1957. 1 box.

Papers of **G. L. (Gordon Leonard) Rogers, 1916-**. 1936-1980. 14 boxes.

UNIVERSITY OF LIVERPOOL. SYDNEY JONES LIBRARY. P.O. BOX 123, LIVERPOOL L69 3DA, ENGLAND. CONTACT: ARCHIVIST.

Lectures, practical notes, etc. from **Allan E. Callow**'s degree program in chemistry at Liverpool. 1933-1938.

Lecture notes and related papers on physics courses at University of Liverpool of **Alan H. Jupp**. 1962-1964.

Papers assembled in the course of **Charles David King**'s research for his University of Liverpool Ph.D. thesis, 'Chadwick, Liverpool and the Bomb' (1997). 5 files, 2 envelopes, 1 tube. There will be further accessions to this deposit.

Oral history interview with **Joseph Rotblat, 1908-**. 1992-1993. Transcript. Interview conducted by C. D. King.

UNIVERSITY OF WARWICK. UNIVERSITY LIBRARY. MODERN RECORDS CENTRE. COVENTRY CV4 7AL, ENGLAND. CONTACT: ARCHIVIST.

Papers of **Sir Francis Arthur Vick, 1911-1998**. 1887-1998. 1.2 cu. meters. Some material is restricted or closed and requires permission for access. See finding aid for details.

GLASGOW UNIVERSITY. ARCHIVE SERVICES. 13 THURSO STREET, GLASGOW G11 6PE, SCOTLAND. CONTACT: DUTY ARCHIVIST.

Papers of **T. W. Aitken**. 1956-1962. 0.15 meters

Papers of **William Cochrane, 1910-1972**. 1921-1971. 1.9 meters.

Papers of **Philip Ivor Dee, 1904-1983**. 1946-1972. 0.65 meters.

Papers of **Sir John Currie Gunn, 1916-2002**. 1940s-1980s. 17.3 meters.

Papers of **Hugh Russell Letham Lamont, 1915-**. 1933-1937. 1 box.

Papers of **William Meikleham, 1770/71-1846**. 1792-1821. 0.05 meters (1 folder).

Papers of **Terence Reginald Forbes Nonweiler, 1925-**. 1961-1975. 0.25 meters.

UNIVERSITY OF ABERDEEN. DEPT. OF SPECIAL LIBRARIES AND ARCHIVES. KING'S COLLEGE. ABERDEEN AB 9 ZUB, SCOTLAND. CONTACT: READING ROOM.

Papers of **David Thomson, 1817-1880**. 1799-1894. 26 volumes and 4 folders. Open.

UNIVERSITY OF WALES, ABERYSTWYTH. HUGH OWEN LIBRARY. PENGLAIS, ABERYSTWYTH, DYFED SY23 3DZ, WALES. CONTACT: ARCHIVIST.

Records of the **British Society of Rheology**. 1940-ongoing. 0.15 cubic meters.

Records of the **University of Wales, Aberystwyth. Dept. of Physics**. [ca. 1877]-ongoing. 0.3 cubic meters.

BROWN UNIVERSITY. THE JOHN HAY LIBRARY. UNIVERSITY ARCHIVES. PROVIDENCE, RI 02912 USA. CONTACT: MARTHA L. MITCHELL.

Papers of **Carl Barus, 1856-1935**. 1869-1935, n.d. 3.8 lin. ft. Portions of the collection are not processed.

Lecture notes of **Brown University faculty**. 1814-1961. 4.2 lin. ft.

Papers of **Alexis Caswell, 1799-1877**. 1824-1877. 0.4 lin. ft. (277 items).

Papers of **J. W. L. (James Whitbread Lee) Glaisher, 1848-1928**. 1870-1884. 275 items.

Papers relating to Bern Porter by **James Erwin Schevill, 1920-**. 1943-1992. 2 cu. ft.

INSTITUTE FOR ADVANCED STUDY. HISTORICAL STUDIES—SOCIAL SCIENCE LIBRARY. PRINCETON, NJ 08540, USA. CONTACT: LISA COATS.

Records of the **Electronic Computer Project (ECP)**, Institute for Advanced Study (Princeton, N.J.). 1940-1967. 7 cu. ft. No access to items for 30 years from their date of production.

JOHNS HOPKINS UNIVERSITY. SPECIAL COLLECTIONS, MILTON S. EISENHOWER LIBRARY. 3400 N. CHARLES ST., BALTIMORE, MD 21218, USA. CONTACT: MARGARET BURRI.

Papers of **George Stock Benton, 1917-1999**. 1950-1989. 13 boxes and 1 oversize item.

Papers of **William George Fastie, 1916-2000**. 1937-1997. 14.5 lin. ft. (18 boxes).

Papers of **Leon Madansky, 1923-2000**. 1941-1997. 2.75 lin. ft. (4 boxes).

NATIONAL CENTER FOR ATMOSPHERIC RESEARCH/UNIVERSITY CORPORATION FOR ATMOSPHERIC RESEARCH. ARCHIVES. PO BOX 3000, BOULDER, CO 80307-3000, USA. CONTACT: DIANE RABSON.

Oral history interview with **David Atlas**. Interview conducted by R. Serafin on 30 September 1987. Forms part of the American Meteorological Society Recorded Interview Project. AMS approval required for access.

Oral history interview with **Walter M. Elsasser, 1904-**. Interview conducted by J. T. Kiehl, 12 March 1986. Forms part of the American Meteorological Society Recorded Interview Project.

Oral history interview with **Tetsuya Theodore Fujita**. Interview conducted by Richard Rotunno, 25 February 1988. Forms part of the American Meteorological Society Recorded Interview Project. AMS approval required for access.

42 years of research on atmospheric disturbances with **Tetsuya Theodore Fujita**. 1988 February 24. Forms part of the American Meteorological Society Recorded Interview Project. AMS approval required for access.

Oral history interview with **E. B. (Eric Bradshaw) Kraus, 1913**. Interview conducted by Chester Newton on October 28 and November 6, 1987. Forms part of the American Meteorological Society Recorded Interview Project. AMS approval required for access.

Oral history interview with **Julius London, 1917-**. Interview conducted by Warren Washington and J. Kiehl on 21 May 1987. Forms part of the American Meteorological Society Recorded Interview Project. AMS approval required for access.

Oral history interview with **Chester W. Newton, 1920-**. Interview conducted by J. C. Fankhauser and M. A. Shapiro on 13 March 1990. Forms part of the American Meteorological Society Recorded Interview Project. AMS approval required for access.

Oral history interview with **Norman A. Phillips, 1923-**. Interview was conducted on 2-3 October 1989 by Tony Hollingsworth, Warren Washington, Joe Tribbia, and Akira Kasahara for the American Meteorological Society tape recorded interview project.

Oral history interview with **Herbert Riehl, 1915-**. Interview conducted by Joanne Simpson on 9 September 1989. Forms part of the American Meteorological Society Recorded Interview Project. AMS approval required for access.

Oral history interview with **Joanne Simpson**. Interview conducted by Margaret LeMone on 6 September 1989. Forms part of the American Meteorological Society Recorded Interview Project. AMS approval required for access.

Oral history interview with **Joseph Smagorinsky**. Interview conducted by John Young on 15 May 1986. Forms part of the American Meteorological Society Recorded Interview Project. AMS approval required for access.

Oral history interview with **Philip Duncan Thompson**. Interview

conducted by J. Tribbia and A. Kasahara on 15-16 December 1987. Forms part of the American Meteorological Society Recorded Interview Project. AMS approval required for access.

ROCKEFELLER ARCHIVE CENTER. 15 DAYTON AVE., POCANTICO HILLS, NORTH TARRYTOWN, NY 10591-1598, USA. CONTACT: LEE R. HILTZIK.

Papers of **Abraham Pais, 1918-2000**. 36 cu. ft. Collection is closed to researchers pending processing.

STATE UNIVERSITY OF NEW YORK AT ALBANY, ARCHIVES, UNIVERSITY LIBRARIES, B-43, 1400 WASHINGTON AVENUE, ALBANY, NEW YORK 12222, USA. CONTACT: GEOFF WILLIAMS.

Papers of **Charles Luther Andrews, 1908-**. 1936-1967. 0.75 cu. ft.

Papers of **Roger Cheng**. 1966-2000. 3.0 cu. ft.

Papers of **Raymond Falconer**. 1942-1999. 97 cu. ft. Much of the collection is currently unavailable until treated for mold and mildew.

Papers of **Eugene McLaren**. 1959-1987. 3.5 cu. ft.

Records of the **State University of New York at Albany, Atmospheric Sciences Research Center**. 1959-1984. 5 cu. ft.

Records of the **State University of New York at Albany, Center for the Study of Science and Society**. 1967-1971. 2.33 cu. ft.

Papers of **Alfred H. Woodcock**. 1930-1995. 7.25 cu. ft.

SYRACUSE UNIVERSITY. ARCHIVES AND RECORDS MANAGEMENT. E. S. BIRD LIBRARY, SYRACUSE, NY 13244. CONTACT: EDWARD L. GALVIN.

Papers of **Joseph W. (Joseph Woodrow) Weinberg, 1917-2002**. 1947-1982. 5 archives boxes.

UNIVERSITY OF MINNESOTA. CHARLES BABBAGE INSTITUTE. CENTER FOR THE HISTORY OF COMPUTING. UNIVERSITY OF MINNESOTA LIBRARIES, MINNEAPOLIS, MN 55455, USA. CONTACT: ELISABETH KAPLAN.

Papers of **William A. Higinbotham**. 1948-1955. 0.1 cu. ft. (1 box).

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This *Newsletter* is a biannual publication of the Center for History of Physics, American Institute of Physics, One Physics Ellipse, College Park, MD 20740; phone 301-209-3165; fax 301-209-0882; e-mail chp@aip.org or nbl@aip.org. Editor: Spencer R. Weart. The *Newsletter* reports activities of the Center and Niels Bohr Library, and other information on work in the history of physics and allied fields. Any opinions expressed herein do not necessarily represent the views of the American Institute of Physics or its Member Societies. This *Newsletter* is available on request without charge, but we welcome donations (tax-deductible) to the Friends of the AIP Center for History of Physics (www.aip.org/history/friends.htm). The *Newsletter* is posted on the Web at www.aip.org/history/web-news.htm, where you can sign up for e-mail announcements to learn when new Web exhibits, resources, or *Newsletter* issues are posted online.

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Center for History of Physics
 American Institute of Physics
 One Physics Ellipse
 College Park, MD 20740-3843

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