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The Charles Babbage Institute
For the History of Information Processing
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The Charles Babbage Institute Newsletter

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JOHN MAUCHLY DIES

Most of the following article is taken from one that appeared in *Electronic News* on January 14, 1980.

John W. Mauchly, co-inventor of the world's first electronic computer, died January 8 while undergoing heart surgery at the Abington Hospital near his home in Ambler, Pennsylvania. He was 72 years old.

Dr. Mauchly and his colleague, Dr. J. Presper Eckert, Jr., conceived a design for a "numerical integrator" in the basement of the Moore School of Electrical Engineering at the University of Pennsylvania, and built what was to be considered later the first electronic computer. The machine covered 15,000 square feet and weighed 30 tons. It was constructed from thousands of gas tubes.

Known officially as the Electronic Numerical Integrator and Computer, and popularly as ENIAC, it was introduced to the world in 1946 and launched the era of the electronic digital computer.

Made under an Army contract during World War II for calculating trajectories for field artillery and bombing tables, ENIAC was used for 10 years after the war and served as the basis for the Binary Automatic Computer, or BINAC, which was made in the late 1940's by the Electronic Control Co., later renamed the Eckert-Mauchly Computer Corp.

The birth of the Eckert-Mauchly Corp., and ENIAC, had its roots in the few months prior to United States involvement in World War II, when the two men met in 1941. Dr. Mauchly was at that time the head of the physics department at Ursinus College. He soon joined the staff of the University of Pennsylvania.

During his stay at Ursinus Dr. Mauchly constructed from some gas tubes a machine which could count up to about 500. At the same time, Dr. Eckert was working with emission counters for cosmic rays at the University of Pennsylvania.

In a 10-page memorandum specifically prepared for the Army, Dr. Mauchly proposed the basic



John Mauchly

idea for a machine with 10 accumulators and sent the memo to one of his superiors at the University of Pennsylvania. It was from this memo that ENIAC would spring.

Electronic News quoted Eckert as saying, "We talked about the idea for months before the memo. It was a back of the envelopes kind of thing."

At 1:00 a.m. on April 9, 1942, the prospective co-inventors finished a second memo, which now included details of a machine described in an appendix written by Dr. Eckert, and later in the morning took the document to the Army station at Aberdeen Proving Grounds in Maryland.

A colonel at the installation approved the project and told the co-inventors to start work the next day, but because of uncompleted legal work the project was delayed. It was the colonel who added the words "and computer" to the title selected for the machine.

"What made ENIAC distinct from other work being carried out at the time was the concept of internal memory and subroutine," Dr. Eckert was quoted. "What Mauchly and I did was really to invent a computing system."

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FROM THE EDITOR

We are now distributing 4,000 copies of each issue of the *Newsletter*. The constituency of the Charles Babbage Institute for the History of Information Processing is growing. As the New Year begins, CBI would like to thank all those who have contributed to the Institute's establishment and progress.

Pamela Gullard
Editor

IN MEMORIAM

We sadly report that in addition to John Mauchly, two other computer pioneers died recently.

Alexandra Forsythe: Alexandra Illmer Forsythe, a mathematician, computer scientist, and teacher, died at her Stanford University campus home January 2. She was 62.

She taught mathematics at Vassar and Smith Colleges, the University of California at Los Angeles, the University of Utah, Stanford University, and for 14 years, in the Palo Alto Unified School District.

Her college text books on computer science have been translated into 15 languages, including Chinese.

Her late husband, George, was chairman of the Stanford University Computer Science Department.

We are fortunate that Pamela McCorduck completed an interview with Alexandra Forsythe this last May for CBI's oral history program (see article on "Oral History", page 5).

Herman Lukoff: Sperry Univac Director of Technical Operations, Herman Lukoff, died September 24 at the age of 56. Lukoff joined Eckert-Mauchly Computer Company following Navy service in World War II. He was chief engineer of UNIVAC's LARC computer, the first big mainframe to use solid state devices. He also has been credited with a number of pivotal developments in input/output technology. His book *From Dits to Bits: A Personal History of the Electronic Computer*, published late 1979, is a personal commentary on his involvement and the involvement of other key personalities in the development of computer technology and his lifelong interest in amateur radio.—Courtesy *Datamation*, November, 1979.

CBI'S BOARD OF TRUSTEES MEETS

CBI's second Board of Trustees meeting was held in New York City on October 5, 1979. When the Board first met in January, 1979, plans for CBI to become established at a permanent site were just being formulated. Now, as Walter F. Bauer, Chairman of the Site Selection Committee reported, that center of operations is about to become a realization (see article on "Site Selection," page 3). Becoming established at a permanent site will allow CBI to develop its full-scale program, in particular, to establish an archival center that will serve the entire history of information processing community. In addition to the encouraging report on the progress that has been made to find a place to put down our roots, the Board meeting covered the following items:

- 1) *Development Committee*—A motion was passed directing the Executive Committee to appoint a Development Committee and prepare a charter for that committee to further CBI's fund-raising activities. To date, CBI has developed a good financial base and this committee will help ensure the continued support that a permanent institution needs.
- 2) *Board Membership*—Gene M. Amdahl (Chairman, Amdahl Corporation), Isaac L. Auerbach (President, Auerbach Publishers, Inc.) and William O. Baker (Chairman, Bell Telephone Laboratories), all Trustees whose terms had expired due to early rotation, were re-elected to five year terms. The Trustees serve staggered five-year terms.
- 3) *Executive Secretary*—The Board unanimously expressed thanks to Paul Armer for the fine job that he has done for the past two years as CBI's Executive Secretary.
- 4) *Research Priorities Study*—Nancy Stern reported on the study that she is undertaking for CBI to map the research territory of the history of information processing (see article on "Stern's Study of Research Priorities," page 4).
- 5) *Microfiche Project*—CBI has been considering a project to microfiche a number of articles, out-of-print books, and other source materials related to the history of information processing. The Board endorsed this idea.
- 6) *Committees*—The Board went over CBI's committee structure and membership and made modifications thereto in light of experience to date.

After lunch, the Board was treated to a presentation by Alfred W. Van Sinderen, President of Southern New England Telephone Company, on his extensive collection of printed and manuscript materials about Charles Babbage.

DEC OPENS DIGITAL COMPUTER MUSEUM

The Digital Equipment Corporation (DEC) opened the Digital Computer Museum in September, 1979, for use by DEC personnel and their customers. Kenneth H. Olsen, President of DEC, is also a CBI Trustee.

The museum occupies the lobby and mezzanine of DEC's Tower Building in Marlboro, Massachusetts. It plans to be open to the public in May, 1980. Until that time, one can view the exhibits if accompanied by a DEC escort or if one makes an appointment at DEC.

At this time the museum contains: various posters and computer family trees which outline the growth of computing devices; parts from MIT's Whirlwind computer; the complete TX-O from Lincoln Laboratory; an extensive calculator exhibit showing the progression from the abacus to the electronic calculator and including "Napier's bones"; an exhibit showing four generations of logic; a primary memory exhibit with nearly all technologies; a PDP-1 and PDP-8, both operational; and the LINC-based Laboratory Computers—LINC, LINC-8, PDP-12, and MINC. A CRT, connected to a local VAX-11, is utilized as the exhibit guide/directory to the museum. About half of the museum is comprised of non-DEC parts, and this balance is intended.

As the museum evolves it will acknowledge a variety of audiences, but for now it is oriented to those with computer backgrounds. The exhibitions will include not only displays in cases, but viewer-operated, audio-visual presentations and interactive exhibits and slide presentations on logic/memory evolution. Also planned is a gallery of parts and manuals from DEC machines and an exhibit showing the evolution of secondary memory.

Professor Maurice Wilkes of Cambridge University gave the opening lecture. The subject was EDSAC and the talk was videotaped. A regular museum Lecture Series is planned, and the videotapes and background materials from each talk will be made available.

SITE SELECTION MOVING AHEAD

Our last *Newsletter* contained an article on the appointment of a Site Selection Committee to find a permanent home for CBI. The Committee is chaired by CBI Trustee Walter. F. Bauer, President, Informatics.

CBI contacted the presidents of over forty major universities, asking them if they would be interested in having CBI located on their campuses. About half of these expressed interest in submitting a proposal, and several other university administrators, having read about CBI's site search in the *Newsletter* and other publications, asked to be considered also.

The committee developed a twenty-six page "Proposal Invitation" which was sent to all interested organizations. Proposals are due in CBI's office by February 8. As these are received, the membership of the Site Selection Committee will be screened to make certain that there will be no conflict of interest. The remaining Committee will meet on February 21 to review the proposals. This will be followed by on-site visits as appropriate. It is expected that these visits will be completed and the final decision made by the Board of Trustees by May, 1980.

EXECUTIVE DIRECTOR SEARCH

Trustee James W. Birkenstock has accepted the chairmanship of a committee to conduct a search for an executive director for CBI. Since it would be difficult to recruit someone when the job location was unknown and because it is possible that the site selected as a permanent home for CBI will nominate an individual who is already working at the site (and who is acceptable to CBI's Board of Trustees), there has been little activity so far. However, now that the site will soon be identified, preparations to select the best director possible have been begun. The ideal director would be an historian with a strong background in the history of information processing and with excellent administrative abilities.

STAFF CHANGE

CBI has been sharing the services of Della Prather with our neighbor, Cabledata Associates. Della did an outstanding job handling our administrative and secretarial chores and cheerfully managed that nearly impossible task of keeping two organizations happy. However, the combined work grew to such an extent that even Della was terribly overloaded. It became obvious that each organization needed a full-time person. Della has become a Cabledata Associates employee and CBI has been fortunate to hire Linda Scott, who formerly worked at Stanford University.

Della provided invaluable help during our formative stages and will be sorely missed. Fortunately she is still right next door.

JOHN MAUCHLY DIES

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In 1947, the co-inventors left the University and formed the Electronic Control Co.

At their new company, work commenced on the BINAC. The two inventors hoped they could complete the machine in 9 months, but it took 18 months. Northrop had ordered a machine, which had a magnetic multi-track tape and 15 to 20 instructions, for missile guidance.

The day the order was shipped, however, Northrop cancelled the order because of greater interest in an MIT project, and the product was never used for practical purposes.

Dr. Grace Hopper, who worked for Dr. Mauchly from 1949 to 1959 and who is now a captain on the Admiral's Staff of the Navy's Data Automation Command in Washington, told *Electronic News* about what happened the night before shipment.

"Dr. Mauchly had stayed up all night running problems before shipment to Northrop. When we arrived there were coke bottles everywhere and Dr. Mauchly was playing Merrily We Roll Along on the BINAC."

After BINAC, Eckert and Mauchly went on to develop the UNIVAC 1, the world's first commercial computer. The first UNIVAC was used by the Bureau of Census. The inventors' company in 1950 was bought out by Remington Rand, which in 1955 merged with Sperry Corporation.

Dr. Mauchly was director of UNIVAC applications research until 1959, when he left the company. That same year he formed Mauchly Associates, a consultant firm.

In 1967, he founded Dynatrend, a computer consultant firm.

Since 1973, Dr. Mauchly was a consultant to the Sperry Univac division of Sperry Corp.

Born in Cincinnati, Dr. Mauchly received a bachelor's degree and Ph.D. in physics by the age of 24 from Johns Hopkins University.

Donations may be made to the John Mauchly Memorial, Van Pelt Library, University of Pennsylvania, 3420 Walnut Street, Philadelphia, PA. 19104.

CBI has learned that Dr. Mauchly's papers will be donated to the Van Pelt Library.

STERN'S STUDY OF RESEARCH PRIORITIES

Nancy Stern, Associate Professor, Department of Administrative Computer Systems, Hofstra University, New York, is conducting for CBI a program under which she will develop criteria for identifying those historical areas most in need of study and in particular, will develop priorities for selecting those pioneers who should be interviewed for the oral history program.

Paul Berthiaume, a CBI Trustee who is President of the New York Times Information Bank, is working with Nancy Stern to develop a database which will consist of interrelated files containing information such as: the names of pioneers and biographies of them; dates and descriptions of events; copies of selected papers; lists of awards won; descriptions of important computers; and the names of editors of various journals through the years, people who conducted conferences, administrators at universities, executives of companies, and others involved in computer development. Stern has completed a prototype for the historical database consisting of seventy key articles related to computer development in the 1940's and 1950's, brief biographies on thirty pioneers of this period, and technical descriptions of about twenty-five important computers developed during this time. This prototype will be used to pinpoint the problem areas in developing the database.

The prototype database is now being expanded. Stern is directing three part-time graduate students in the researching of industry journals and reference materials. She has enlisted the support and counsel of numerous pioneers and members of contemporary computer companies and has drafted and is distributing to CBI's Board members a questionnaire soliciting their opinions about which historical areas would be most profitably studied. Readers of this *Newsletter* who have suggestions about important historical areas which should be looked at and/or suggestions about individuals who should be interviewed are invited to send them to our Palo Alto address.

Because the development of data processing is such a new and relatively unexplored historical territory, it would be easy for CBI to initiate studies on an ad hoc basis. Nancy Stern's project was designed to help CBI instead direct its resources toward research which will most illuminate the history of computing. By so doing, this project may help others in the field establish their priorities.

CBI'S ORAL HISTORY PROGRAM

We are pleased to announce that Antonin Svoboda and Arthur Burks have agreed to be subjects of oral histories to be taken by CBI. Developing oral histories of these two distinguished pioneers will be a significant contribution to the field.

Bobbi Mapstone, who did many of the oral history interviews carried out under the Smithsonian's program in the history of computing, interviewed Svoboda in late November. Svoboda escaped from the advance of Hitler's army on Czechoslovakia at the outset of World War II and repeated the process in France. He spent 1942-5 at MIT's Radiation Laboratory. He returned to Czechoslovakia in 1946 where he built what was probably the first "fault tolerant" digital computer. Returning to the United States, most of the balance of his career was spent at UCLA.

Nancy Stern, Associate Professor of Administrative Computer Systems at Hofstra University in Hempstead, New York, will interview Arthur W. Burks this summer. Burks is best known for having been one of the three authors of the classic 1946 paper, "Preliminary Discussion of the Logical Design of an Electronic Computing Instrument Part 1. Volume 1" along with Herman H. Goldstine and John Von Neumann. The paper gave a detailed description of the plans for the computer to be built at the Institute of Advanced Study. Burks is now located at the University of Michigan.

As reported in the last *Newsletter*, Pamela McCorduck (whose book on artificial intelligence has just been published, see "Publications" column, page 8) is completing a series of interviews with individuals involved with the late George Forsythe in establishing the Computer Science Department at Stanford University. The project included an interview of Alexandra Forsythe, George's wife, who recently died. The oral work has been completed and the tapes are being transcribed. McCorduck is also completing the oral history of Gerhard Dirks, a pioneer who holds a number of early computer design patents.

SHARE To Be Featured at Pioneer Day

In recent years each National Computer Conference (NCC), sponsored by the American Federation of Information Processing Societies (AFIPS), has featured "Pioneer Day" at which a particular historical event is examined. This year

the event selected is the formation of SHARE, the users group started in 1955 for the IBM 704 computer. SHARE was the first of the many users groups which were later organized. "SHARE" was not an acronym although years after its formation, "Society to Help Alleviate Redundant Effort" was advanced as an appropriate referent for it.

The NCC will be held this year at the Anaheim (California) Convention Center, May 19-22. Pioneer Day will be held on the afternoon of Wednesday, May 21.

In view of the fact that SHARE will be featured at Pioneer Day, the *Annals of the History of Computing* has moved up publication of Paul Armer's 1956 paper, "SHARE—A Eulogy To Cooperative Effort" so that it will appear in the April, 1980 issue of that journal.

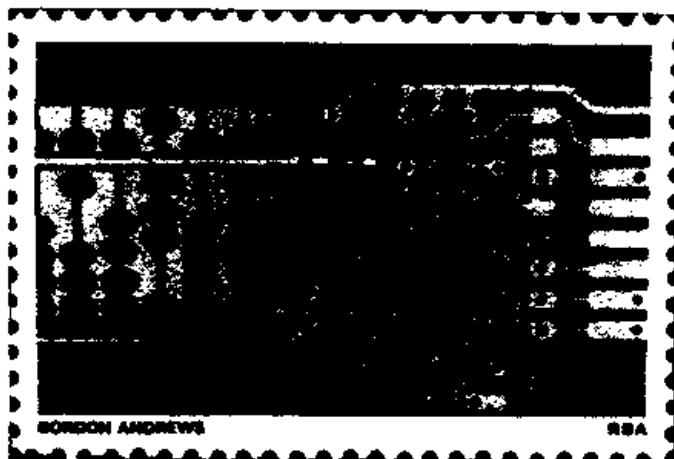
An important aspect of the environment from which SHARE sprang was the Digital Computer Association (DCA), a group organized several years earlier than SHARE to meet in the Los Angeles area on a monthly basis, in much the same fashion and for the same reasons as today's local chapters of our national computer professional societies meet. In recent years DCA has become strictly a social gathering for old-timers and new-timers. DCA will hold its annual meeting on Friday evening, May 23 in the Los Angeles area.

ASSOCIATES PROGRAM

CBI is supported by corporations and individuals. Many *Newsletter* readers have joined in this effort by becoming CBI Associates. If you would like to join, the schedule for contributions is below. Every Associate receives at no charge a subscription to the journal published by the American Federation for Information Processing Societies, *Annals of the History of Computing*.

Associate Member Category	Minimum Annual Tax-Deductible Contribution	Cost of Lifetime Membership at the Category Level (one time payment)
Regular	\$ 40	\$ 650
Participating	\$ 100	\$1,000
Sustaining	\$ 500	\$3,000
Patron	\$1,000	\$5,000

Please make your check payable to the Charles Babbage Institute, and mail to: CBI, 701 Welch Road, Suite 224, Palo Alto, CA 94304. An *Annals* subscription will be entered in your name.



An Australian stamp showing progress from the abacus to the printed circuit.

STAMP COLLECTION ON COMPUTERS

Michel Landrieu of Cii Honeywell Bull in France has developed a large private stamp collection dedicated to the computer. An exhibit of a portion of his collection, comprised of over sixty pages of stamps with descriptions, won a bronze medal from the International Philatelic Federation during CAPEX 78 in Toronto, Canada, and a silver-bronze medal at a Worldwide Stamp Exhibition in Sofia, Bulgaria at Philaserdica 79.

Landrieu has divided his collection into three sections dealing with computer history, the working parts of the computer (the central processing unit and the input-output peripherals), and the computer industry. The stamps come from all over the world and many are first day covers. As one looks at this large number of stamps depicting a variety of computer-related subjects, the worldwide impact of the computer is readily apparent. A stamp poignantly illustrating this impact is one from the Ivory Coast which shows a young woman working at a computer. At the bottom of the stamp are the words, "Informatique=Developpement."

A stamp issued for the First Data Processing Congress at the University of Bogota, depicting satellite communications between computers.



ARCHIVAL PROGRAM

Most of CBI's archival program is still in the planning stages. The Program Committee, chaired by Clarence W. Spangle, will soon launch a study of the technology available and of the parameters for a program which will be most useful to historians of science and technology.

The Institute is continuing to collect materials on an emergency basis and in fact has already received a number of important contributions. CBI thanks Margaret Milligan of Data Processing Digest, Inc. for arranging the donation of all the original documents which were summarized for issues of *Data Processing Digest* for the years of 1975 to 1977. Milligan also arranged for CBI to receive the original documents of subsequent issues. These will be an important source in our archives.

We also would like to thank Linda J. McKell, Librarian, Four-Phase Systems, Inc., for arranging the contribution of ten boxes of documents collected by Four-Phase employees through the years. These include materials from the very early days, such as machine manuals from the 1950's and early Bell Laboratories documentation. In addition, Charles P. Morel has sent 1972-73 manuals for the Memorex MRX/40 and MRX/50 (since few of these machines were produced, there are few manuals in existence) and Richard M. Peterson of Honeywell has arranged for the acquisition of a useful set of manuals and desk files collected by E. F. Somers, and contributed by his widow. Somers was an early member of the CODASYL Committee while at Sperry-Rand and a COBOL pioneer. Antonia D. Schuman of TRW has donated manuals from the 50's and 60's for various machines.

George Glaser has sent a number of boxes of old manuals, conference proceedings and journals from his private collection. In addition, he has contributed a complete record of the antitrust suit brought against IBM in the mid-70's by California Computer Products, Inc. Charles W. Hastings has contributed part (about a dozen boxes) of his large collection of company-generated product descriptions of computers and peripheral equipment made during the 1950's and 1960's.

In January, 1980, CBI hired Reddy Dively, an information systems analyst, as a part-time consultant to organize the current archival collection and help plan for the future program. Full-scale archives will be established when CBI is settled at its permanent site. Until that time, the staff will be happy to answer inquiries

about the disposition of any historical documents you might have.

We urge you once again to preserve any materials that you think may have some historical value. A tool you may wish to use to assess your own files is the pamphlet published by the American Federation of Information Processing Societies (AFIPS), "Preserving Computer-Related Source Materials." (See "Publications of Interest" on page 8 for information on how to obtain copies at no charge.) As AFIPS points out, "The computer professional is often surprised by the range of materials which historians and sociologists of science and technology seek. Before any papers or artifacts relating to important developments are destroyed, a trained archivist or historian of science or technology who is aware of the potential research value of the materials should be consulted." So please, SAVE THOSE FILES.

NATIONAL ACADEMY PANEL

The Computer Science and Technology Board of the National Academy of Sciences has formed a panel to study the "Conduct of Basic Research in Computer Science and its Interaction with Applied Research and Development." Jack F. Blackburn, Executive Director of the Board, has written asking for information on completed studies concerning particular instances of how computer science research has had an observable impact on applied research and development.

The panel itself is planning two major types of study. Retrospective studies will examine an important application or product and seek to determine its roots, if any, in basic research. Prospective studies will trace forward from some significant result, event, or program in basic research and try to identify its impact on technological advancement. Possible topics for retrospective studies include microprocessors, CAT scanners, image processing, word processing, and hand calculators. For prospective studies, the panel will consider FORTRAN, virtual memory, sketchpad, Project MAC, and automatic programming.

Readers who know of previous studies or have information which might contribute to this effort are invited to write to Dr. Blackburn at the National Research Council, 2101 Constitution Avenue N.W., Washington, D.C. 20418.

CERUZZI PRESENTS PAPER IN GERMANY

On October 10, 1979, Paul Ceruzzi, CBI's 1979-80 Fellow, presented a paper, "The Early Work of Zuse—An Historian's View," at a ceremony to award an honorary degree to Konrad Zuse at the University of Hamburg. Zuse developed one of the earliest computers. Other speakers at the ceremony included Professor Bauer of Munich, Professors E. Jessen and H. Flessner of Hamburg, and Zuse himself. Ceruzzi's talk was scheduled as part of a course on Net Theory so it was well attended, not only by historians, but also by computer scientists and mathematicians. Springer-Verlag will publish the lecture notes of this course in March, 1980.

After the talk, Ceruzzi spent several weeks in Germany furthering his research at the Deutsches Museum, the museum of the Siemens Company and at the Gesellschaft für Mathematik und Datenverarbeitung in Bonn where he also gave a colloquium on early computer developments in Germany, Great Britain, and the US from the standpoint of an historian.

NEXT ISSUE OF THE ANNALS

The January, 1980 issue of the *Annals of the History of Computing* contains the following articles:

- Martin Campbell-Kelly, "Programming the EDSAC: Early Programming Activity at the University of Cambridge"
- R. W. Marczyński, "The First Seven Years of Polish Digital Computers"
- N. Metropolis and J. Worlton, "A Trilogy on Errors in the History of Computing"
- Samuel S. Snyder, "Computer Advances Pioneered by Cryptologic Organizations"
- Pamela Gullard, "The Charles Babbage Institute for the History of Information Processing"
- Jean Sammet, "Activities of AFIPS History of Computing Committee"
- AFIPS, "Preserving Computer-Related Source Materials" (see "Publications of Interest" on page 8 for a description)

Subscription information on the *Annals* may be obtained from AFIPS at 1815 North Lynn Street, Arlington, Virginia 22209. If you become an Associate of CBI (see "Associates" page 5), we will subscribe for you.

By the way, interest in the subject of the history of computing is indicated by the *Annals'* level of subscriptions—now over 1000.

PUBLICATIONS OF INTEREST

Periodically the *CBI Newsletter* will list recent publications related to the history of information processing. Please let us know of items that should be included.

- American Federation of Information Processing (AFIPS), *Preserving Computer-Related Source Materials* (Arlington, Virginia: AFIPS, 1979).

This pamphlet is a tool to help you decide which of your files may have historical value and should be saved (see article on "Archival Program," page 6). The pamphlet was drafted by Nancy Stern of Hofstra University, New York, and is based on an earlier similar publication of the American Institute of Physics' Center for History of Physics. Copies are available for the asking from AFIPS, 1815 North Lynn Street, Arlington, Virginia 22209. It will also appear in the January, 1980 issue of the *Annals of the History of Computing*.

- J. M. Dubbey, *The Mathematical Work of Charles Babbage* (Cambridge: Cambridge University Press, 1978).

A lengthy review of this book appeared in the *British Journal for the History of Science*, Vol. 12, No. 40, 1979, pp. 86-87.

- I. Grattan-Guinness, Editor, *History and Philosophy of Logic*, a new journal published at: Abacus Press, Abacus House, Speldhurst Road, Tunbridge Wells, Kent TN4 0HU, England.

This publication will publish articles, notes, and book reviews dealing with the history and philosophy of logic. It will also publish articles on relevant collections of manuscripts and on (large-scale) projects about to start or in progress.

- Herman Lukoff, *From Dits to Bits: A Personal History of the Electronic Computer* (Portland: Robotics Press, 1979).

The introduction of this book was written by Presper Eckert and John Mauchly. The author was involved with the development of ENIAC at the Moore School. This book says that the roots of computer technology are grounded in motives and ideas as altruistic as any artist. Here are recounted problems, successes and failures experienced by the author as he worked alongside Mauchly, Eckert, and others. Herman Lukoff died in October, 1979 (for more about his life, see page 2). A review of *From Dits to Bits* by Philip H. Dorn will appear in the

January, 1980 issue of *Datamation*. Dorn says that the book "is a very nice piece of work."

- Pamela McCorduck, *Machines Who Think* (San Francisco: W. H. Freeman and Company, 1979).

The author traces the course of artificial intelligence, drawing on her interviews with major figures in the field. The book includes a description of ELIZA, the computer program that simulated the conversation of a psychological therapist, and it explores the often neglected idea of "meat machines," which try to imitate the workings of the brain at a cellular level. McCorduck recounts the story of a chess playing computer, whose first move in its first game was to resign. Price: \$14.95 (392 pages, 19 illustrations)

- Montgomery Phister, Jr., *Data Processing Technology and Economics, Second Edition* (Bedford, Massachusetts: Digital Press, 1980).

Reviewer Ted Withington of A.D. Little, Inc. had this to say about this second edition of Phister's work, "This remarkable book contains by far the most comprehensive collection of facts about the industry ever published in one place—by far the best source of quantitative data available." (Price: \$29.95 in hardback, \$24.95 in soft; may be ordered from Digital Press, DEC Educational Services, Crosby Drive, Bedford, MA 01730).

THE TEACHING OF THE HISTORY OF COMPUTING

We would like to hear from anyone now teaching or about to teach a course in the History of Information Processing. Please send us a copy of your syllabus and reading list. ~~If the demand is reasonable, we will distribute~~ copies of all the information we receive to anyone requesting it. We are considering the formation of a project to develop a syllabus which would be useful to teachers of the history of computing.



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