

Charles Babbage Institute Annual Report for 1990-91

The efforts of CBI in this fiscal year fall into three categories: historical research, archives development, and community involvement.

Historical Research

The primary effort in historical research was devoted to furthering project efforts toward the study of the Defense Advanced Research Projects Agency (DARPA) computing activities, under a contract with the Department of Defense. At the end of the fiscal year on 30 June 1991 over 350 pages of manuscript had been written toward a volume on the history of DARPA's involvement in computing developments between 1962 and 1985. Three of the four case studies on computing developments in time-sharing, wide-area networks, and graphics were presented in draft form. A careful study of the management practices of the DARPA Information Processing Techniques Office (IPTO), which supported most of DARPA's computing activities and drafts of two chapters on the IPTO program itself were also available. What remained to be added to this draft was a careful construction of the background out of which IPTO emerged, namely, computing associated with projects like SAGE, and a statement of the influence of IPTO programs on the development of computer science and engineering. During the year, this writing was accompanied by further research into the activities of computing in the period and a number of additional interviews were recorded. Judy O'Neill worked essentially full time on this project since joining CBI in January 1991 and Norberg worked

half time for the entire fiscal year. Our colleague Professor Kerry J. Freedman prepared the case study on graphics. We were aided in our research by graduate students John Jackson and Shawn Rounds. We expect to complete the manuscript in the coming fiscal year.

Additional work in historical research involved the preparation of papers for presentation at meetings in the coming year. One paper was on the role of government in developments in recent computing and the effect of these developments on the competitiveness of United States industry. Another is on national policies for technological development and computing. Work continued on the history of the computer industry, with the aid of graduate student Robin Clamons.

Archives Development

During fiscal 1991 the CBI Historical Collection grew by 1100 cubic feet of material in forty-six accessions that included several collections or partial collections such as the Burroughs Corporation Records, Montgomery Phister Papers, the Jean E. Sammet Papers, and the Joan M. Winters Papers. Additions were made to several existing collections including the records of George Glaser, Carl Hammer, Margaret R. Fox, SHARE, and AFIPS. The quantity of records is the largest annual accumulation in CBI's history and nearly doubled CBI's holdings. The oral history collection also continued to grow, expanding by thirty interviews to over two hundred and fifty.

Annual Report continued on page 5...

U.K. National Archive for History of Computing

by Geof Bowker

Director, National Archive for the History of Computing

The National Archive was established at the University of Manchester on 1 July, 1987. The Archive is currently under the directorship of Geof Bowker, who took over from Geoffrey Tweeddale on 1 September 1991. Since its inception, the Archive has amassed an important collection of records covering the development of academic and commercial computing in Great Britain including in particular large deposits from International Computers Limited (ICL), the University of Manchester and the National Research Development Corporation. Complementing these records are an extensive catalog produced by Geoffrey Tweeddale and a photographic, oral history and audio-visual collection. The importance of Manchester and its region in the history of British computing is well known. It was at Manchester University that the Mark 1, the world's first stored program computer, came into operation in 1948. Moreover, the Manchester region remains an important center for the British computer industry.

The Archive is located within the Center for the History of Science, Technology and Medicine. These close links mean that members of and visitors to the Archive can contribute to the Center's seminar series, and can keep abreast of developments in the social studies and history of science and technology through the Center's own

National Archive continued on page 4...

International Conference on the History and Prehistory of Automatic Computing and Informatics, Sienna, Italy

The International Conference on the History and Prehistory of Automatic Computing and Informatics was held in Sienna, Italy on September 10-12, 1991. The participants in the conference were a combination of historians and pioneers in the development of computing. The conference, organized by Corrado Bonfanti and Laura Toti Rigatelli, focused on the development of Italian informatics but did so in the context of international developments as represented by scholars from France, Germany, Hungary, the United Kingdom, and the United States as well as by the representatives of many Italian universities and organizations.

Two of the conference's six sessions covered "pre-history" and international perspectives on the influence of national policies on informatics. Three sessions offered a variety of views and remembrances of the development of

informatics in Italy, from a representative cross section of the different organizations and groups in Italy that played an important role in Italian computing, including manufacturers, universities, purchasers and users of computers, and user groups. While various technical "firsts" were discussed, such as the first Italian-made computer, the ELEA, there was also an understanding of the role of non-technical factors in the development of computing in Italy. Examples of some of these factors include the rebuilding required in Italy after World War 2, Olivetti's company policies, personal influences such as Enrico Fermi's letter in 1954 encouraging the building of an Italian computer, the role of user groups as a vehicle for sharing information and furthering the practice of computing among Italian computer users, and government obstacles such as the need

for a new law or presidential decree to establish a new degree program for the study of computing in Italian universities.

Thursday's closing session was a general discussion of the international status of the history of informatics including museums, archives, and resources available, and a call for the development of better resources for preserving Italian computing and for continuing and building upon the interest generated by the conference. There was an announcement of a new program in the History of Computing at the University in Bari, Italy, being developed by Professor Mauro di Giandomenico. Although no explicit plans were made for further conferences, there was an evident enthusiasm for investigating and understanding the history of Italian computing and computing generally. □

CHARLES BABBAGE INSTITUTE NEWSLETTER

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Shot Special Interest Group in History of Computing Holds Fifth Annual Meeting

The Society for the History of Technology (SHOT) Special Interest Group in Information, Computing, and Society held its fifth annual meeting at the SHOT Conference in Madison, Wisconsin on 31 October 1991. The meeting was chaired by Judy O'Neill of the Charles Babbage Institute.

As the primary purpose of the Special Interest Group is to meet other people with similar interests, the meeting began with each member briefly telling the group about his or her specific areas of interest and current projects. The group then took up the issue of how to find out about and maintain this type of communication throughout the year. The CBI Newsletter, designated as the newsletter for the group, could fulfill part of this function, if the information was provided on a timely basis and was readily available. To provide this information, and to serve as a more informal means of

communication, the group decided to start an electronic bulletin board or mailing list. Members Janet Abbate, Paul Ceruzzi, Roy Wilson, and Judy O'Neill are investigating various options for providing this and will have something in place soon. Items of interest about research projects as well as any other appropriate information will appear regularly in the CBI Newsletter so as to be available to those members without access to electronic mail.

Anyone wishing to add their electronic mail address to the list or otherwise become associated with this interest group can do so by contacting Judy O'Neill at CBI. □

When You Move...

Please let us know your new mailing address. This will ensure your receiving the CBI Newsletter on a timely basis and also save us postage costs. Thank you.

DPMA Donates Records

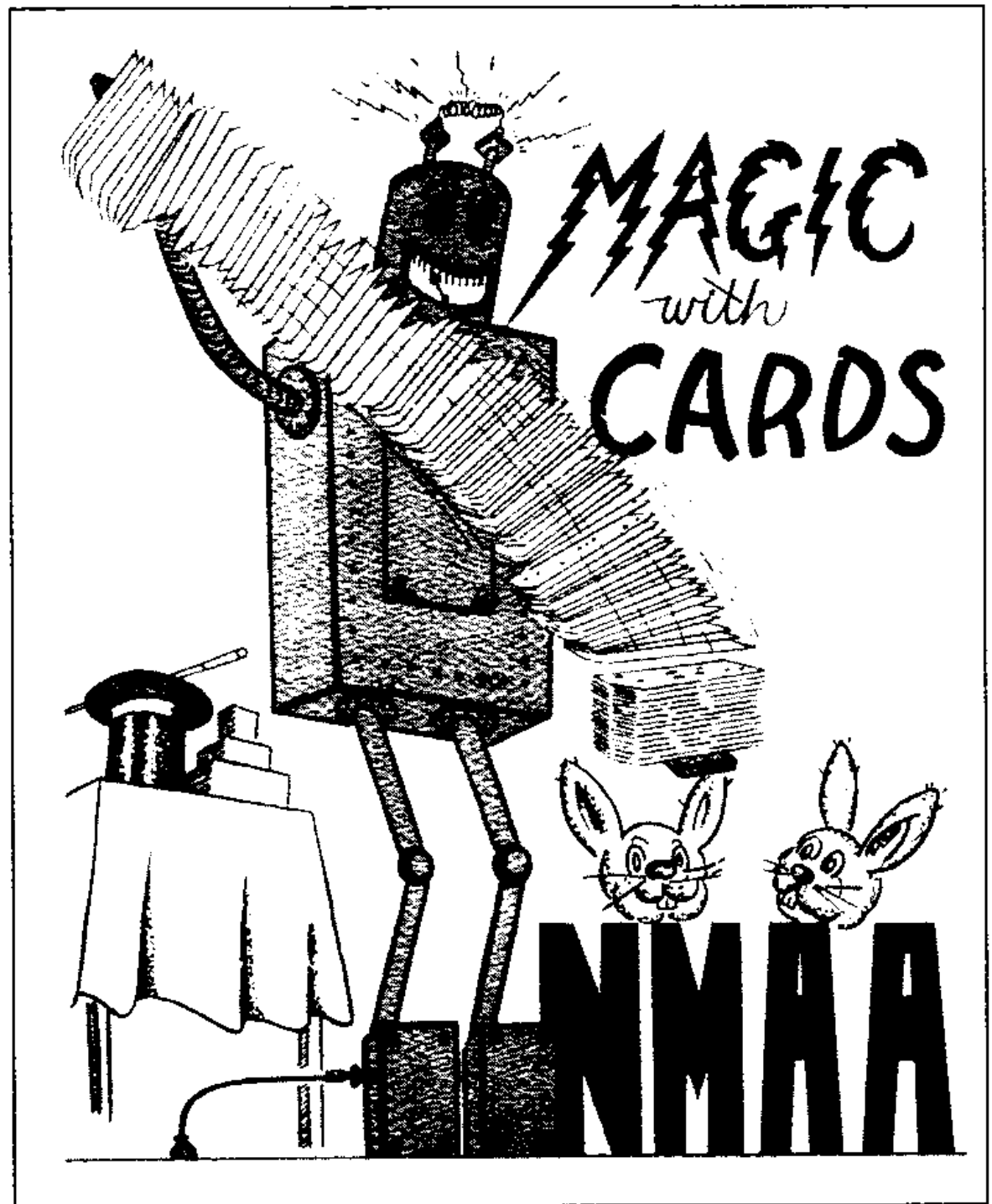
Over 75 cubic feet of records were donated to CBI by the Data Processing Management Association (DPMA), an international organization of over 40,000 data management professionals. The records form the core of the organization's archives from the 1950s through the 1970s; they include meeting minutes, photographs, publications, audio/visual productions, and correspondence files. The collection is the largest and most complete of any records held by CBI relating to computer professional organizations.

DPMA originated from a meeting in Chicago in 1949 that provided the impetus two years later for the formal establishment of the National Machine Accountants Association, devoted largely to the management of punched card accounting operations. In 1950 the group founded the publication *The Hopper*, which was renamed the *Journal of Machine Accounting Systems and Management* in 1954. An annual conference was established in 1952. Ten years later the group had changed its name to its present form and moved aggressively to establish educational standards in the form of a Certification in Data Processing (CDP). Educational programs continue to maintain a high profile among the activities of the organization.

In 1985, DPMA attempted to establish an archives under the initiative of Eddie Ashmore, then DPMA president, and Willis Daniel, a past International President. The project was successful in establishing a display case at the Park Ridge, Illinois headquarters, acquiring some records and artifacts from members, and producing an oral history interview. Unfortunately, this effort could not be sustained by the resources of the organization, and the archives was displaced by other urgent priorities.

In the meantime, CBI's archivist was encouraged by another DPMA past president, Paul Pair, to consider the value of the organization's records among CBI's growing collection of records document-

DPMA continued on page 6...



The first national convention of National Machine Accountants Association was held in Minneapolis in 1952. The theme, "Magic with Cards," was presented in this graphic taken from the March 1952 edition of The Hopper. The announcement of the Minneapolis convention promised members an introduction to electronic computers. If that seemed too novel to the accountants, the announcement reminded them that "only twenty-five years ago no one ever dreamed that punched card accounting could achieve anything like the widespread use it enjoys today."

library. We also have links with the Science and Technology Policy board at the University, which has extensive interests in information science policy. We have one postgraduate student at the Center currently working closely with the Archive: James Small, who is completing a doctorate on the history of analog computing. In the course of his doctorate, James has overseen the acquisition of a collection of records on early analog machines.

Visitors are always welcome. We are also happy to deal with postal enquiries to the address below. Further, we are always looking for new records so anyone who owns or knows of significant collections in the British Isles that need a home can contact us.

With the change of directorship, the Archive is currently reassessing current

and future directions. We will be concentrating on the following areas in the next five year period:

- consolidating our collection of computing archives, in particular organizing the further acquisition of records from ICL and other manufacturers;
- carrying out a program of oral history;
- exploring the possibility of creating an honours course in the history of computing at Manchester University, perhaps tied in to a wider program in information science and society;
- collecting archives for selected application domains. For example, we are currently looking for archives concerned with the development and management of large medical databases;
- forming study groups on theoretical archival concerns of interest to government and industry;

- collecting archives in the history of cybernetics.

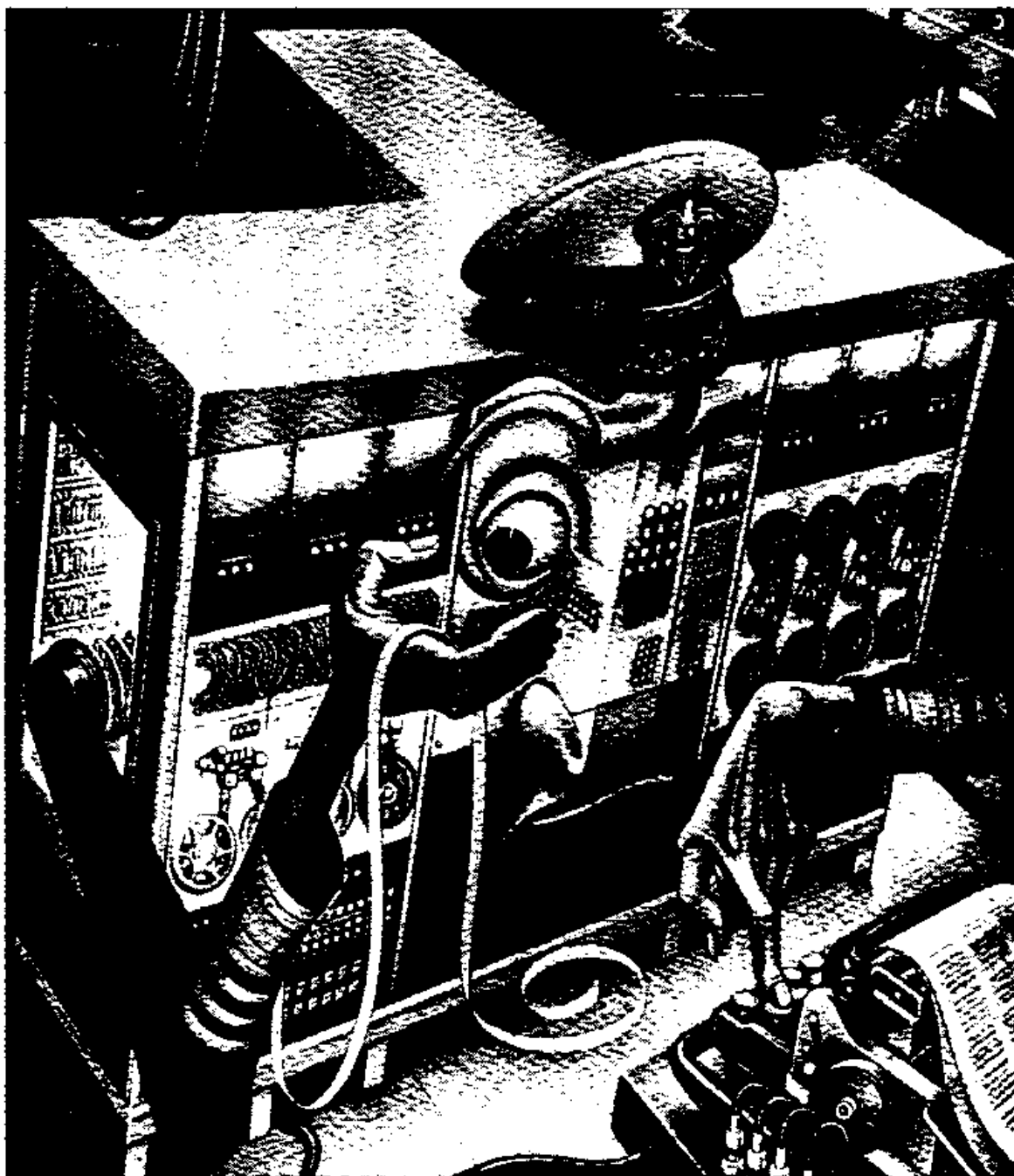
In order to make this ambitious program a reality we need to get in touch with interested groups/researchers across the world so that we can establish international and national links. If you have any suggestions or advice, or would like further information about our holdings, please write to:

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Anniversary for Harvard MARK III

Forty years ago the Harvard Mark III Calculator went into operation at the Naval Proving Ground, Dahlgren, Virginia. The Mark III was commissioned by the Bureau of Ordnance of the United States Navy in 1948 and built at the Computation Laboratory of Harvard University under the direction of Howard Aiken. The machine was completed in 1950. After preliminary testing at the Computation Laboratory it was disassembled, transported to the Proving Ground and reassembled in 1951. The Mark III used magnetic drums for internal storage, magnetic tape for external storage and input and output, and off-line electric typewriters. It was used at the Proving Ground for ballistics calculations.

The accompanying photograph is from a picture painted by Artzybasheff for a cover of *Time*, *The Weekly Newsmagazine*. □



CBI continues to process donated collections and recorded oral histories to make them available for research. Information about the collections is placed in the national data files of the Research Libraries Information Network (RLIN) and LUMINA which can be accessed from many places around the globe through Internet. Since his arrival in February, assistant archivist Kevin D. Corbitt has been active in processing collections, updating finding aids, and creating database entries for the CBI collections. Several of the manuscript collections were processed and draft finding aids completed. An ongoing Research Libraries Group project grant will enable CBI to add oral history abstracts to the RLIN database over the

IEEE Fellowship in Electrical History

The Institute of Electrical and Electronics Engineers (IEEE) invites applications for its 1992-93 Fellowship in Electrical History.

The Fellowship supports either one year of full-time graduate work in the history of electrical engineering and technology at a college or university of recognized standing or up to one full year of post-doctoral work in the same field for a recent graduate.

The IEEE Fellowship in Electrical History is made possible by a grant from the IEEE Life Member Fund and is administered by the IEEE History Committee.

The deadline for submission of all application materials is 1 February 1992. Further information and application materials may be obtained by writing to:

Director
Center for the History of Electrical
Engineering
Rutgers-The State University of New
Jersey
39 Union Street
New Brunswick, NJ 08903-5062 ☐

coming year.

During the past fiscal year, the CBI archives staff has responded to general requests about our collections and to specific requests about certain material from telephone inquires, correspondence and facsimile transmissions, and on-site requests. In general, correspondents asked both basic reference and information specific questions while the largest portion of the on-site reference requests originated from other members of the CBI staff. Several on-site patrons used oral histories, especially the 1990-91 Tomash Fellow Janet Abbate, and the archives processed requests for disk or paper copies of transcripts.

During the year, Bruce Bruemmer developed legislation, which was submit-

Reference Library Cataloged

CBI's reference library was recently cataloged by the University of Minnesota Libraries Technical Services Department, moving the CBI Historical Collection closer to the goal of being completely represented in LUMINA, the university's automated catalog. The reference collection includes monographs about the history of computing, reference texts necessary for researching manuscript holdings, published surveys, and many rare classics.

The cataloging project was initiated primarily to provide better control over the book collection, which does not circulate. However, the appearance of these works in LUMINA has significantly increased reference requests from University of Minnesota patrons. It has also served to heighten local interest in CBI's manuscript holdings. (LUMINA is accessible through Internet; see the Spring 1991 newsletter.)

Upon completion of the book project, the cataloging team will turn to CBI's serials collection, the last remaining CBI resource not represented in an automated catalog. [.]

ted to the Minnesota Legislature by two state legislators, to ensure the ability of CBI and other archives in Minnesota to restrict access to privately donated records. The law makes explicit archivists authority to negotiate with donors temporary restrictions on non-government records. Also, it empowers archivists to withhold access to archival records when the physical or organization integrity of privately donated collections is threatened. The law was signed on 3 June 1991.

Community Service

CBI's community involvement was in publication of the newsletter and other works, teaching at the University of Minnesota, service to professional groups, and attendance at meetings of various kinds. Four numbers of the CBI Newsletter and Volume 15 of the CBI Reprint Series in the History of Computing appeared. The highlight of the professional group activity is Bruemmer's participation with an archival group trying to develop national guidelines for oral history cataloging. Norberg continued his teaching in the Program in History of Science and Technology at the University. Staff attended a number of meetings in the United States and in Europe. The 1991-92 Tomash Fellowship was awarded to Mark Clark of the University of Delaware.

Objectives for Fiscal Year 1992

- During the coming year, CBI will
- Complete the DARPA report (approximately 31 December 1991)
 - Prepare the report for publication (approximately 30 June 1992)
 - Continue to pursue important collections for deposit in CBI
 - Continue the processing of collections
 - Continue the planning process for future CBI efforts. ☐

DPMA continued from page 3...

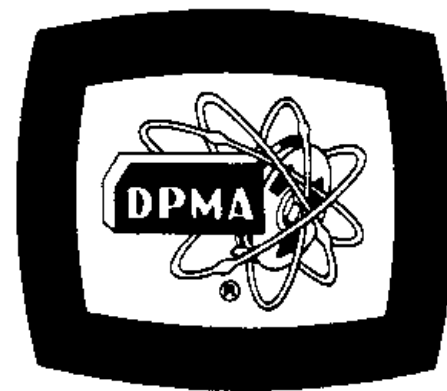
ing computer professional groups. Unlike ACM or AFIPS, DPMA's headquarters had moved only once, thereby improving the chances that early records had not been destroyed. CBI approached DPMA Executive Director Brian Kennedy, who invited CBI to conduct a inventory of non-current records.

The inventory uncovered a large subject file maintained by R. Calvin Elliot (executive director during the 1960s), a complete run of executive committee proceedings, publications, and historical items that were donated to DPMA in the 1980s. By far the most interesting group of records were the executive committee proceedings, which are typewritten, verbatim transcripts of

meetings from the 1950s to approximately 1970. Rarely do professional organizations produce more than cursory minutes of executive actions; yet DPMA routinely produced transcripts of the meetings prior to the 1970s. Also included were photographs, slide/tape productions, and some 16mm films. Much of the audio/visual material relates to DPMA conferences and educational packages, including "Wuderin' Willie" (a slide-tape program about computers for the general public) and "Man's Most Magnificent Machine" (a 16mm film about data processing). All of these records were subsequently donated to CBI.

Researchers interested in using the executive committee transcripts or

certain financial information will need to apply for permission from DPMA headquarters. All other records in the collection will be available as soon as it is organized and cataloged. Individuals interested in the DPMA records should contact the CBI archivist for further information. []



CHARLES BABBAGE INSTITUTE
NEWSLETTER

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