

Archives in an Electronic Culture

CBI Archivist Bruce Bruemmer has completed a study of the effect of electronic culture on archival usage during a three-month leave from CBI. Most archivists focus on two effects of digital technology: electronic records and digitizing existing paper records. Few archivists grapple with how the technology is changing the style of patron research and their expectations. For example, the typical scholarly researcher who spends a week at an archives going through records is becoming a rarity. Most people who contact CBI for reference help want immediate answers; they do not want to be told that the answer can be found in twenty boxes of records. In many cases, electronic mail has replaced direct work with records.

Electronic mail presently accounts for 40% of all of CBI's reference requests, and this proportion is increasing. Requests often call for information to be dispatched through E-mail, faxes, and overnight delivery service immediately. Some customers expect to find it on the Internet for the taking. As one of the first repositories in the nation to have all of its finding aids available on the Web, CBI has received numerous e-mail requests for instructions about how to 'click on' them to see the actual document.

Bruemmer's analysis of 265 Web sites developed by special collections and archives in the United States and Canada indicate, however, that archivists do not typically include collection interpretation on the Web. Less than 10% of the repositories surveyed had any "virtual exhibit" connected to their site. A detailed report on this survey is available on the Web (<http://www.cbi.umn.edu/bruce/arcweb.htm>). □

Bowles Selected 1997-98 Tomash Fellow

Mark Bowles, a Ph.D. candidate in the Program in the History of Technology and Science at Case Western Reserve University, is the 1997-98 Adelle and Erwin Tomash Fellow in the History of Information Processing. He received his B.A. in Psychology and an M.A. in History from the University of Akron. His article, "American Technological Enthusiasm and British Technological Skepticism in the Age of the Analog Brain," appeared in the *IEEE Annals of the History of Computing* October - December 1996 issue. He has several other articles forthcoming in computing and aerospace history.

Bowles' thesis on "The 'Information Crisis': Cold War Computing Culture in the United States, 1945-1971," describes the creation of new computer-based information services in the Cold War to avert a breakdown of the communica-



1997-98 Tomash Fellow Mark Bowles

tions system predicted by scholars and commentators as a result of a post-war flood of articles, books, and reports. Bowles is a student of the distinguished historian of technology, Carroll Pursell.

□

CBI to Sponsor Annual Meetings

Thanks to the generosity of the Tomash Family Foundation, CBI will sponsor an annual meeting devoted to new themes in the history of computing beginning in 1998. The theme of the 1988 conference will be "The Computer as a Scientific Instrument." It will build upon the CBI's current NSF project as well as other work now being done by Tomash fellows and other researchers associated with CBI.

The meetings will be designed to bring together leading researchers in the field who are now engaged in the study of scientific computing and participants

in the development of scientific computing to compare perspectives and to synthesize new approaches, new methods, and new materials that have become available. For example, CBI is experimenting with creative use of its Internet site in the conduct of the current multi-institutional study, as well as with the use of the World Wide Web to distribute research materials.

The Tomash Research Conferences will be continued for three years under current funding, and will be renewed if they are found fruitful for the progress of the History of Computing. □

Recent Publications

Anschutz, Thomas, "A Historical Perspective of CSTA Computer-supported Telecommunications Applications," *IEEE Comm. Mag.* 34:2 (1996): 30-35.

Ball, Guy, and Bruce Flamm, *Collector's Guide to Pocket Calculators* (Tustin, CA: Wilson/Barnett Publishing, 1996).

Bennett, John M., "Ferranti Recollections (1950-1955)," *IEEE Ann. Hist. Comp.* 18:3 (1996): 63-66.

Bennett, John M., "World War II Electronics and the Early History of Computers," *IEEE Ann. Hist. Comp.* 18:3 (1996): 66-69.

Bion, Nicolas, *The Construction and Principal Uses of Mathematical Instruments*, trans. Edmund Stone (Mendham, N.J.: Astragal Press, 1995).

Brenner, Alfred E., "The Computing Revolution and the Physics Community," *Phys. Today* 49:10 (Oct. 1996): 24-30.

Dickinson, Joan D., *Bill Gates: Billionaire Computer Genius* (Springfield, NJ: Enslow Publishers, 1997).

Dasgupta, Subrata, *Technology and Creativity* (Oxford University Press, 1996).

Dyson, George B., *Darwin Among the Machines: The Evolution of Global Intelligence* (New York: Addison-Wesley, 1997).

Fang, Irving E., *A History of the Information Revolution* (Boston: Focal, 1997).

Giloi, Wolfgang K., "Konrad Zuse's Plankalkül: The First High-Level, 'non von Neumann' Programming Language," *IEEE Ann. Hist. Comp.* 19:2 (1997): 17-24.

Herz, J. C., *Joystick Nation: How Computer Games Ate Our Quarters, Won Our Hearts, and Rewired our Minds* (Boston: Little, Brown & Co., 1997).

Huskey, H. D., R. Thorensen, B. F. Ambrosio, and E. C. Yowell, "The SWAC Design Features and Operating Experience," *IEEE Ann. Hist. Comp.* 19:2 (1997): 46-50.

Huskey, Harry D., "SWAC--Standards Western Automatic Computer: The Pioneer Day Session at NCC July 1978," *IEEE Ann. Hist. Comp.* 19:2 (1997): 51-61.

Iansiti, Marco, "Science-Based Product Development: An Empirical Study of the Mainframe Computer Industry," *Prod. and Oper. Management* 4:4 (1995): 335-359.

Kaiserfeld, Thomas, "Computerizing the Swedish Welfare State: The Middle Way of Technological Success and Failure," *Tech. & Cult.* (1996): 249-279.

Kistermann, Friedrich W., "Locating the Victims: The Nonrole of Punched Card Technology and Census Work," *IEEE Ann. Hist. Comp.* 19:2 (1997): 31-45.

Levinson, Paul, *The Soft Edge: A Natural History of the Information Revolution* (London: Routledge, 1997).

Manzies, Heather, *Whose Brave New World?: The Information Highway and the New Economy* (Toronto: Between the Lines, 1996).

Archivists Meet

Microsoft's Corporate Library hosted the third annual meeting of high-technology industry archivists on April 3 in Redmond, Washington. CBI Archivist Bruce Brucemmer attended, along with representatives from Digital Equipment, Disney, DreamWorks, Hewlett-Packard, Intel, Lucent Technologies, Motorola, and Texas Instruments.

Participants visited the Microsoft Museum and Corporate Library, and Corbis, a photographic stock house initially funded by Bill Gates that owns the Bettman archives, one of the country's great historical photo collections. The Corbis staff demonstrated their in-house photo search engine, which includes a custom thesaurus and knowledge base. Corbis primarily serves journalists and other photo users, delivering high-resolution images via CD-

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E-Mail Address Change

CBI's e-mail address has changed to cbi@tc.umn.edu. Please update your e-mail address list accordingly!

CHARLES BABBAGE INSTITUTE NEWSLETTER

The Charles Babbage Institute, Center for the History of Computing, is sponsored by the University of Minnesota and the information processing community.

Charles Babbage Institute Newsletter is a publication of the Charles Babbage Institute, University of Minnesota, 103 Walter Library, 117 Pleasant Street S. E., Minneapolis, MN 55455 USA. The Newsletter reports on Institute activities and other developments in the history of information processing. Permission to copy without fee all or part of this material is granted provided that the source is cited and a copy of the publication containing the copied material is sent to the Institute.

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Dibner Fellowships

The Dibner Institute for the History of Science and Technology invites applications to its two fellowship programs for 1998-1999: the Senior Fellows program and the Postdoctoral Fellows program. The Dibner expects to have fifteen Senior Fellows and up to five doctoral Postdoctoral Fellows each term.

For further information, please contact:

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InformationWeek Donates Archives

CMP Publications, owner of InformationWeek, donated its archives of back issues dating from 1985, the beginning of the title. InformationWeek focuses on the common concerns of business and technology managers, delivering information on the events, applications, products, tactics, and trends that effect the use of information technology as a corporate resource. CBI is pleased to make this resource available to researchers.

A number of issues are missing from this collection. CBI would like to assemble a complete set. If you have any of the following issues and wish to donate them to CBI, please contact the CBI archives staff.

InformationWeek missing issues:
1986: 57, 70, 72, 74;
1987: 77-98, 109, 120-121, 127-128,
134, 137, 145;
1988: 195-196;
1989: 202, 205, 215, 219, 230, 238, 243-
244, 247, 249,
1990: 252-255, 257, 259-262, 264-267,
274, 279, 281, 284, 289-294, 297-300, 305;
1991: 307-308, 310, 318-320, 323-324,
326, 333, 335, 337-338, 341, 348-349;
1991-1993: 353-428;
1993: 453-456;
1994: 465, 470, 473, 475, 488;
1995: 506-517, 545, 547, 549-560;
1996: 563. □

Campbell-Kelly

Martin Campbell-Kelly, Reader in Computer Sciences at University of Warwick, United Kingdom, has been appointed as a Dibner Institute Visiting Fellow during academic year 1997-1998. Campbell-Kelly, the author of *ICL: A Business and Technical History*, and co-author with William Aspray of *Computer: A History of the Information Machine*, will be writing on L. J. Comrie and the development of mathematical tables in Great Britain in the 1930s and 1940s. □

Ground-Breaking for New CBI Facility!



The ground is thawed and ready for the new Archives Building! With shovels in hand are (right to left) University Librarian Thomas Shaughnessy, Ernie Chapman, Professor Emeritus Clarke Chambers, President Nils Hasselmo, Peter Rodosovich, and Professor Rudolph Vecoli. Construction of the storage caverns is scheduled for completion in the beginning of 1998, and CBI's new home will be ready in the summer of 1999.

On May 9, the University of Minnesota held the ground-breaking ceremony for CBI's new home, the Minnesota Library Access Center (MLAC). University of Minnesota Librarian Thomas Shaughnessy and President Nils Hasselmo described the many years of effort that went into planning and lobbying for the new building, and thanked its many supporters. Former Minnesota State Representative Peter Rodosovich, a strong promoter of the

new library facility, noted that the University's staff made a strong case for the facility, which would be a state, national, and international resource through the digital access that will be designed into the MLAC.

The facility is expected to be completed in July 1999. It will house the Charles Babbage Institute archives and staff offices. □

UND Hires Johnson

The Space Studies Department at the University of North Dakota has hired CBI Associate Director Stephen Johnson as an assistant professor. Johnson will teach history and economics of space, including the history of astronomy, space technologies and institutions, and the economics and management of the space industry.

He plans to continue research on computing, including the development of artificial intelligence, and comparing the development of the computer and aerospace industries, particularly as they use and develop "systems approaches." □

Recent Publications...

Continued from page 2

Murray, Charles J., *The Supermen: The Story of Seymour Cray and the Technical Wizards behind the Supercomputer*, (New York: Wiley, 1997).

Polachek, Harry, "Before the ENIAC," *IEEE Ann. Hist. Comp.* 19:2 (1997): 25-30.

Rojas, Raúl, "Konrad Zuse's Legacy: The Architecture of the Z1 and Z3," *IEEE Ann. Hist. Comp.* 19:2 (1997): 5-16.

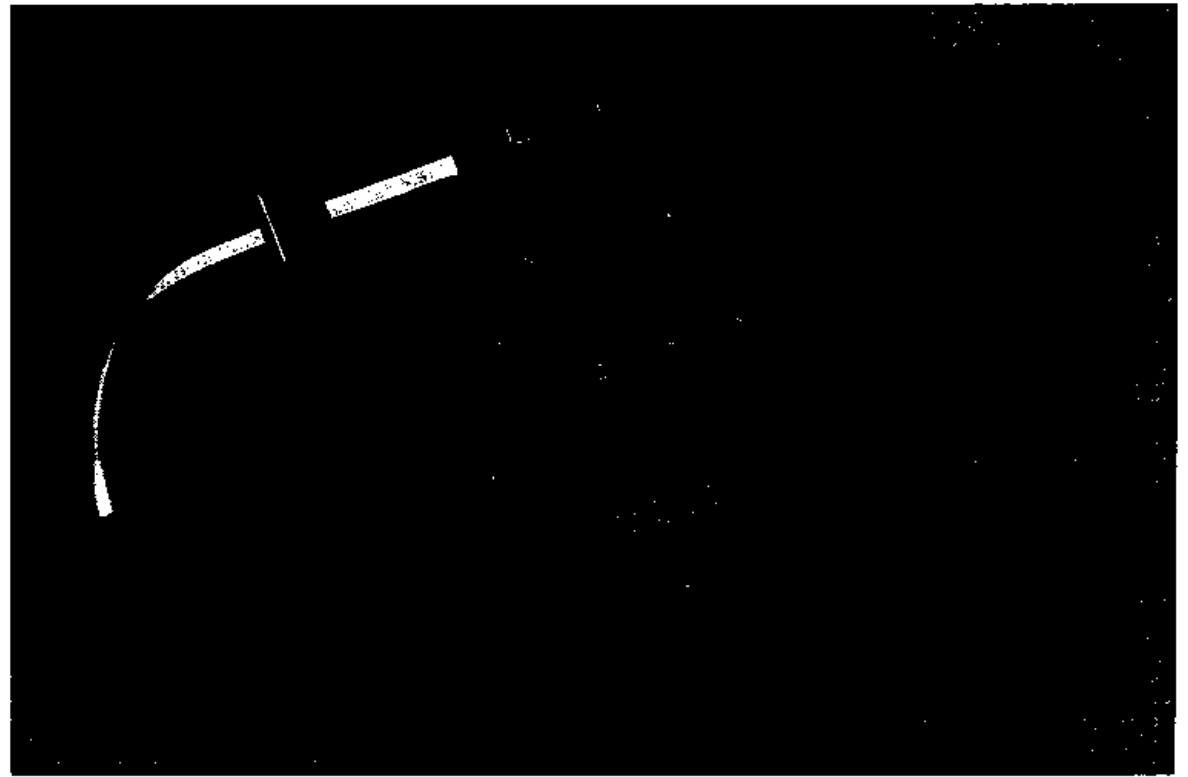
Siewiorek, Daniel P., "Architecture of Fault Tolerant Computers: An Historical Perspective," *Proc. IEEE* 79:12 (1991): 1708-34. □

Charles Babbage Receives New Plaque

The St. Marylebone Society unveiled a new plaque on October 2, 1996, to honor Charles Babbage. Attended by the former mayor of Westminster, heirs of Babbage, and Babbage experts Jim Roberts and Doron Swade, the plaque marks Charles Babbage's home at 1 Dorset Street in Westminster, England.



Thirty Years Ago . . .



Jack S. Kilby, Jerry D. Merryman, and James H. Van Tasse, of Texas Instruments produced the prototype of the electronic, hand-held calculator in 1967. The battery-powered device accepted six-digit numbers, performed four basic arithmetic functions, and printed results as large as 12 digits on a thermal printer. The calculator's case, fashioned from a solid piece of aluminum, measured 4-1/4 by 6-1/8 by 1-3/4 inches, and weighed 45 ounces. Although never manufactured for the retail market, it bears a striking resemblance to the Canon Pocketronic which TI worked with Canon to bring to market. Further information is available from Texas Instruments (<http://www.ti.com/corp/docs/history/calcnf.htm>). (Reprinted by Permission of Texas Instruments)

Archivists Meet...

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ROM. The company scans about 1000 images per day from various sources and has approximately 24 catalogers to maintain that volume.

The participants discussed digitization and the potential of image libraries on the Web. Bruemmer gave a brief demonstration of CBI's Web site, and the participants extensively discussed Intranets, electronic mail, electronic records, outreach, and collection development.



CHARLES BABBAGE INSTITUTE NEWSLETTER

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