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## E-Journals: A New Frontier

*by Z. Kelly Queijo*

Visitors to Newman Library already know that current research journals, popular magazines, and other serials are stored on shelves in the curved wing on the third floor of the building. They know they can browse these shelves, perusing not only the journal of their choice, but also journals on related topics on adjacent shelves. They can easily pick up the journals they want to read and take them to a nearby carrel or reading area for further review. In every sense, the process of searching for and handling the journal is physical.

Another type of journal, however, is emerging where access is not physical, but electronic. These electronic journals, or "e-journals," are stored not on shelves but in computer files. Distribution is still by subscription, but delivery of the e-journal is done either through electronic mail (e-mail), where the text of the journal is sent to the subscriber in the form of a computer file, or through access to an information network such as the Internet. Either way, information is exchanged across various computer and communication systems throughout the world, virtually in a matter of seconds.

An element unique to many e-journals is that the electronic format may be the only format for publication of these titles. Researchers may be familiar with electronic information systems such as the Dow Jones News/Retrieval Service. Information in such systems is published electronically, but much of it is also available in the traditional paper format. This is not the case with many e-journals; they are only published electronically and access is only available using a computer. It is unlikely that libraries will reproduce the text of e-journals on paper or microfilm for additional or archival storage.

E-journals may save libraries money as subscriptions to many titles are available free of charge. Whether or not free subscriptions will continue, however, remains to be seen.

Still in their infancy, electronic journals will soon undergo other transformations. For example, information published in e-journals/ is currently available in a text-only format; graphics or other

art work is not included. This, however, will change as researchers work out the details for transferring and displaying graphics and text files across information networks. The University Libraries are also involved in a research project with the National Agriculture Library and North Carolina State University to digitize text and graphics so that this combination of information formats can be exchanged through computer networks.

Electronic journals represent new territory for libraries. Access to, rather than ownership of, journals becomes the issue. As libraries keep pace with changes in information technology, they face opportunities and challenges on this new electronic frontier.



## **New Collections Expand Scope Of Aerospace Archives**

*by Clara B. Cox*

The Archives of American Aerospace Exploration has recently added seven collections to its holdings, expanding its scope and providing additional strength for its position as one of the nation's premier repositories of personal papers on aerospace history.

Among the new collections are the papers of Robert R. Gilruth, an aeronautical engineer and NASA administrator known as the father of the manned space program in the United States. Gilruth was the only director of the Space Task Group, which formed the nucleus of the manned space program in the U. S. following the Soviet launching of Sputnik in 1957. In 1961, he became the first director of the Manned Spacecraft Center in Houston, where he headed Project Mercury.

"Gilruth is a seminal figure in the history of the space program. Because many of his personal papers were destroyed when he left Houston in 1972, those that he retained are very important," says Glenn McMullen, archivist for the collection.

Among Gilruth's papers are a typescript diary kept during February and March 1961, a period that included the successful unmanned test flight of Mercury-Atlas 2 on February 21; a copy of an unpublished memoir, "From Wallops Island to Project Mercury, 1945-1958"; his notes for his farewell speech as director of the Houston center; and copies of oral history transcripts of his interviews on the history of the space program.

The archives also obtained the papers of John V. Becker, an aerospace engineer who specialized in hypersonic and reentry aerodynamics and a pioneer in the development of the X-15 research aircraft, which flew at hypersonic speeds and attained altitudes of over 350,000 feet.

Becker, who is the author of *The High-Speed Frontier: Case Histories of Four NACA Programs, 1920-1950*, headed the Compressibility Research Division and the Aero-Physics Research Division of the National Advisory Committee for Aeronautics (NACA) and NASA before his retirement in 1974.

The Becker collection includes correspondence, notes, memoranda, and other material related to the X-1, X-15, and X-20 Dyna-Soar programs; research files for his book; transcripts of oral history interviews; and copies of his publications and lectures.

Other recent acquisitions include the personal papers of:

- Blake W. Corson, Jr., an aeronautical engineer who retired from NASA Langley in 1972 as head of the 16-Foot Transonic Tunnel Branch

- John E. Duberg, an aeronautical engineer and NASA administrator who served twelve years as associate director of Langley's Theoretical Mechanics Division
- F. Edward McLean, an aerospace engineer who received patent awards for a supersonic airplane design, the author of *Supersonic Cruise Technology*, and aeronautical manager and head of the NASA Supersonic Technology Office
- Edward C. Polhamus, an aeronautical engineer active in aerodynamics research related to the development of high speed aircraft, and co-inventor of the variable-sweep wing configuration that led to the U.S. Air Force F-111 and B-1 aircraft
- John W. Townsend, Jr., a physicist who directed the Goddard Space Center after serving as deputy administrator of the Environmental Sciences Services Administration, associate administrator of the National Oceanic and Atmospheric Administration, and president of the Fairchild Space Company

The new acquisitions bring the total number of collections in the Archives of American Aerospace Exploration to twenty-four. The archives was begun in 1986 with the donation of the papers of Christopher C. Kraft, Jr., a Virginia Tech alumnus who was flight director for all the Mercury and many of the Gemini space missions, and who headed the Johnson Space Center from 1972 to 1982.

Other collections in the archives include the papers of Apollo XI astronaut Michael Collins; the papers of Samuel Herrick, the founder of the field of astrodynamics; and the papers of John T. Parsons, a pioneer in the field of numerical control. All are housed in the Special Collections Department in Newman Library.

"In large part the archives represents a network of people who worked together, and their papers often interconnect," McMullen says. He adds that "Evert B. Clark, a space journalist who received an award for his coverage of the Apollo program and whose papers are part of the collection, even interviewed a number of the other people whose papers we have."

Persons interested in obtaining further information on the aerospace archives, including a detailed lists of its collections, may contact Glenn McMullen at (703)231-9205, or write to the Archives of American Aerospace Exploration, University Libraries Special Collections Department, PO Box 90001, Blacksburg, VA 24062-9001



## **A Scenario Remotely to be Desired**

*by Alan Armstrong*

Consider the following: Dr. Strangelodge, associate professor in the Department of Sub-Urban Studies, has recently been hired as consultant to the Society for Life Under Ground (SLUG). His mission is to analyze a plan to construct a huge subterranean complex combining condominiums, a shopping mall, and a miniature golf course.

Known for his cross-disciplinary approach to problem solving, Dr. Strangelodge wants to cover the medical and psychological effects on the human animal of extended periods of time spent underground, but doesn't want to leave out aesthetics, and always likes to spice up his prose with the occasional literary quote or allusion.

He leans back in his squeaky leather swivel chair, runs his fingers through his Einsteinish curls, sucks his bearded lower lip, and contemplates the holes in the ceiling tiles. But only for a moment. "Aha," he exclaims, raising a finger, "the library CD-ROM networks will meet all my

needs: Medline at the Vet Med Library, PsycLIT and MLA International Bibliography at Newman, Art Index at the Art and Architecture Library. I'll get it all right here on my own PC, quicker than the flick of a mole's tail!"

And he does, thanks to the remote access to CD-ROM databases soon to become available to Virginia Tech faculty, staff, and students.

Since June 1990, the Reference Department at Newman Library has had in place a local area network providing access to PsycLIT, ERIC, Agricola, MLA International Bibliography, and several other bibliographic and numeric databases on CD-ROM. As many as eight users can simultaneously search these databases from workstations located in the library building. Soon, access to the CD-ROM network will be expanded to include remote access between Newman Library and the Veterinary Medicine and Art and Architecture branch libraries.

Library patrons using terminal emulation software on microcomputers located at any of these libraries will be able to call a host PC at any other library, using the university's digital phone system. The call is then processed by a device invented by library programmer Nikhil Jain, which permits compatibility between the host PC and the phone system. The host PC contains all the search software, and once the phone connection is made, the remote user performs all search activity on this PC as though he or she is actually present in the library.

Few libraries have attempted to provide access to CD-ROM databases in such a manner, and none of those attempts had been successful when Virginia Tech's project was begun. Tackling the technical details involved, however, was only one obstacle library workers had to overcome. For example, terminal emulation software had to be distributed and permission rights had to be gained from vendors for remote access to their databases. Much experimentation and negotiation was required before the present system could be put in place.

Providing remote access among the campus libraries is only the beginning; in the future, remote access may be extended to additional on- and off-campus facilities (including offices or even homes) when the library has sufficient hardware and processing power to handle the potential onslaught of access requests such a service may prompt. In the mean time, slow and deliberate steps are bringing the libraries closer to making the scenario at the start of this story a reality.



## Architectural Drawings

*by Gordon Hogg*

Besides housing books and journals, the Art and Architecture Library holds materials in other formats geared to meet the needs of its patrons. One such collection—largely unknown outside the architecture community at Virginia Tech—is an important sampling of architectural drawings and blueprints. These resources, while not original works, are nonetheless uncommon. Access to the collection is much prized by individuals or teams of students who prepare for site visits by poring over the wealth of detail offered in these large-scale renderings.

According to Annette Burr, art and architecture librarian, and Robert Stephenson, her predecessor in the post and initiator of this collection, the aim of this resource is twofold. First, it offers students experience working with the architectural drawings of such greats as I. M. Pei, Frank Lloyd Wright, Walter Gropius, and Louis Kahn, whose works have been reproduced on a limited basis. The second function is to make available works by local, faculty, and alumni architects, as well as to house a set of drawings representing the buildings on the Virginia Tech

campus.

Among the hundreds of architectural documents, some familiar Blacksburg names appear. These include Clinton H. Cowgill, whose design for the Lyric Theatre addition is included, and Harold S. Hill, who designed many area residences and businesses. There are other distinguished faculty and alumni contributions, to be sure, and it pleases librarian Annette Burr to welcome additions to this collection at a steady rate.

The collection of architectural drawings in Cowgill Hall affords future architects a valuable opportunity to study, in minute and painstaking detail, the infrastructure of buildings at Virginia Tech, in Blacksburg, across the country, and overseas. The Walter Gropius plans for the U. S. Embassy in Athens, I. M. Pei's unique East Wing of the National Gallery of Art, and the futuristic Dulles International Airport of Eero Saarinen bespeak the international and cosmopolitan aspects of the collection. The drawings for the Cambridge 7 design of the National Aquarium in Baltimore reveal the interplay of steel, concrete, glass, and water-inside the structure as well as in the harbor.

The Art and Architecture Library is also fortunate to be able to offer its patrons a close look at the work of Louis I. Kahn. A number of his plans are held, including his designs for the Kimbell Art Museum in Fort Worth, the Paul Mellon Center for British Art and British Studies at Yale University, and the Salk Institute for Biological Studies in San Diego.

Whether the researcher seeks to study the practical or the monumental, the special nature of this valuable resource offers much in the way of opportunity for advance preparation to on-site scrutiny of structural and decorative details. With enough conscientious planning, the building under study could become as familiar as home.



## **Newsletter Wins Award**

BiblioTech, the newsletter of Virginia Tech's University Libraries, has received the Southeastern Library Association's (SELA) Spotlight on Public Relations Award as the best library newsletter in the southeastern states in 1988 and 1989. The award was announced at a SELA conference held in Nashville in December 1990. The newsletter, which began publication in fall 1989, is published twice a year with funding from private donations.

"BiblioTech has really proved useful in communicating about library services and collections, and in attracting potential donors," says Paul Gherman, university librarian, who notes that the library has received several significant donations as a result of the newsletter.

The newsletter was designed by Michele Moldenhauer, graphic designer, and is copy-edited by Harry W. Yeatts Jr., publications editor, both in University Relations. Glenn McMullen and Kelly Queijo are co-editors. Members of the editorial board include Alan Armstrong, Janet Carlton, Gordon Hogg, and Gail McMillan. Linda Wilson and Paul Metz served on the editorial board in the newsletter's first year.



## **The Oxford English Dictionary On CD-ROM**

*by Gordon Hogg*

One of the most recent additions to Newman Library's Electronic Reference Area is the Oxford English Dictionary (OED) on CD-ROM. The single disk gives access to the more than 250,000 entries included in the 12 mammoth volumes of the original edition, completed in 1933, but does not as yet encompass the material contained in the 1989 second edition of the OED.

This electronic resource is not meant to replace the paper editions; rather, it offers a unique means of selecting precise information from the 42 million words and nearly 2 million quotations that make up the entries. For quick word-checks or consultations, the familiar paper OED is still the preferred source, but to discover whether the dictionary includes any Shakespeare quotations on food, for example, the CD-ROM format comes into its own.

Even though the user will need to learn more terminology and command language than is required by many of the other indexes on CD-ROM, the dedicated scholar of language, linguistics, philology, literature, or lexicography will benefit from this means of using a time honored research tool. Its applications in the humanities fields are obvious, and its flexibility in turning up quotations, definitions, or etymologies by name, date, or language is a continuing delight to users. In fact, they often feel that they are rediscovering the original Oxford English Dictionary as a far more versatile tool than they could have imagined.

The OED on CD-ROM is one more example of the successful merging of a new technology and existing reference sources. Just as this format has made information in indexes multifaceted rather than linear, it has now transformed the greatest of English dictionaries. The Oxford English Dictionary is now truly greater than the sum of its parts.



## Accomplishments

**Lowell Ashley**, principal cataloger, presented a paper, "Videos in the Music Library: Bibliographic Control," at the annual conference of the Music Library Association in Indianapolis, Indiana, February 1991. Ashley was also elected chair of the special interest group on music of the VTLS Users Group.

**Lynn Scott Cochrane**, assistant to the university librarian, was one of three librarians elected from Virginia to represent the state at the White House Conference on Libraries and Information Services, July 9-13 1991. More than 650 delegates will meet in Washington to discuss and debate recommendations for the improvement of library and information services in the United States.

**Paul Gherman**, university librarian, delivered a talk at the Association of Southeast Research Libraries meeting at Hilton Head, South Carolina, in February 1991 on serials pricing and the electronic journal. He has also been appointed chair of the Scholarly Communications Committee of the Association of Research Libraries.

**Diane Glazener**, office services specialist in the Veterinary Medicine Library, presented a paper on "Library Applications in a Free Form Information Management Environment" and made a presentation on forming a users group at the 1991 askSam Users Conference in San Diego, March 1991.

**Gail McMillan**, serials cataloging team leader, was the serials holdings interest group leader at the March 1991 meeting of the VTLS Eastern Regional Users Group in Williamsburg.

**Glenn McMullen**, head of the Special Collections Department, published an article, "Tending the Wounded: Two Virginians in the Confederate Medical Service," in *Virginia Cavalcade*, Vol. 40, No. 4 (Spring 1991).

**Paul Metz**, principal bibliographer, has been appointed to the ACRL University Libraries Section Program Planning Committee for the 1992 ALA Conference in San Francisco.

**Lane Rasmussen**, business librarian, has been elected secretary of the Virginia chapter of the Special Libraries Association.

**Roger Stelk**, reference librarian, and F. Wilfrid Lancaster (University of Illinois) published an article, "The Use of Shelflist Samples in Studies of Book Availability," in *Collection Management*, Vol. 13, No. 4 (1990).

**John Straw**, university archivist, has been appointed chair of the local arrangements committee for the Mid Atlantic Archives Conference's 1991 fall meeting to be held in Roanoke, Virginia, November 7-9. **Glenn Mc Mullen**, head of special collections, and **Laura Katz**, manuscripts curator, are also serving on the committee.

**Linda Wilson**, coordinator of reference services, gave a presentation on "A Virginia High School/University Computer Network" at the Virginia Educational Media Association annual conference in Richmond, November 1990.



## From the University Librarian

The article that begins this issue, "E-Journals: A New Frontier," reports on a new form of scholarly communication, the electronic journal. This new format may offer research libraries a ray of hope toward solving one of the most threatening problems we face: the escalating costs of journals, especially scientific, technical, and medical journals.

The electronic journal promises to offer access to current research at a fraction of the cost of the traditional journal. Typesetting, printing, inventory, and shipping costs are eliminated for the publisher, while binding, shelving, and circulation costs are eliminated for the library. Indeed, faculty members and students may be able to access electronic journals at their desktop workstations—one step toward a library without walls.

The emergence of electronic journals raises a variety of issues, such as the willingness of faculty members to accept this new medium as a valid form of publication for promotion and tenure consideration. Similarly, the use of this new format raises questions about copyright law and authors' control over their publications. Currently, faculty members sign over ownership of their work to publishers, and universities must buy back these works for their libraries at ever-increasing costs. Clearly, the advent of the electronic journal invites us to re-examine these and other issues surrounding scholarly communication.

*Paul M. Gherman*



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