



# MIT LIBRARIES' NEWS

## Table of Contents

**Preserving Rotch Library's Treasures**  
page 1

**MIT Libraries' News Goes Electronic!**  
page 1

**New Professional Staff**  
page 3

**Aeronautics and Astronautics Library**  
page 4

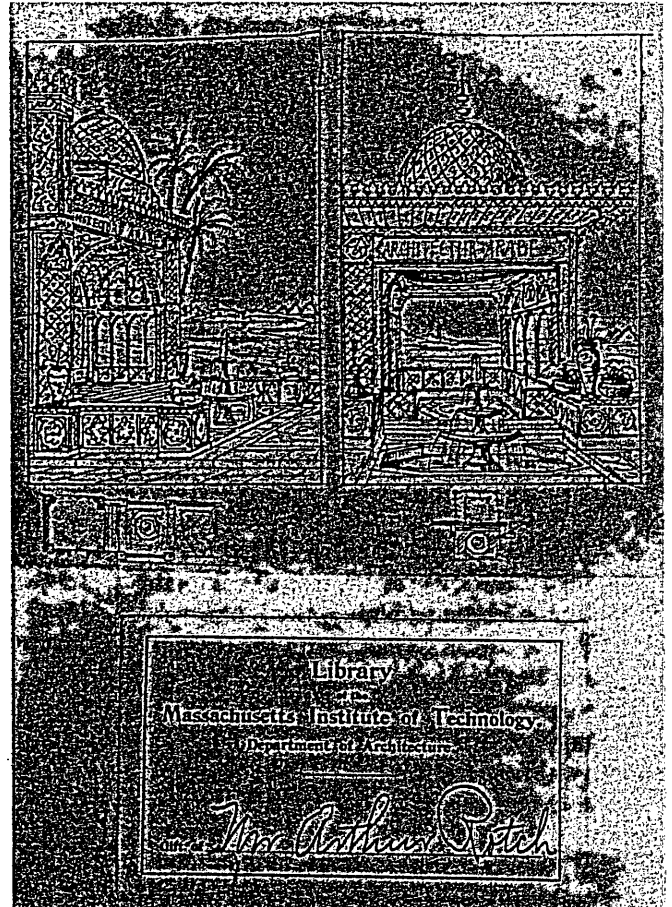
**The Libraries' Gopher Provides Easy Access to Internet Resources**  
page 5

**Libraries Participate in Electronic Journals Experiment**  
page 6

## Preserving Rotch Library's Treasures

**R**otch Library holds one of the most extensive collections of architecture and urban planning materials in the country. Part of its richness lies in its historical jewels -- early editions of architectural treatises, books which influenced 19th and 20th century American design, fine folios from the Beaux Arts period, and a collection in planning which is notable for its breadth. For much of their lives these volumes have been hard-used by generations of students. Now safely housed in the new Limited Access area, these rare books reflect the history and scope of the architecture and planning disciplines at MIT. Unfortunately, many volumes are in poor condition. The combined effects of acidic paper, the lack of climate control until 1991, weak bindings and continual use have caused extensive damage. A preservation program is essential if these

*Continued on page 2*



*An original drawing by Pascal Coste in his work Architecture Arabe: Ou, Monuments du Kaire, mesurs et dessins, de 1818 a 1826.*

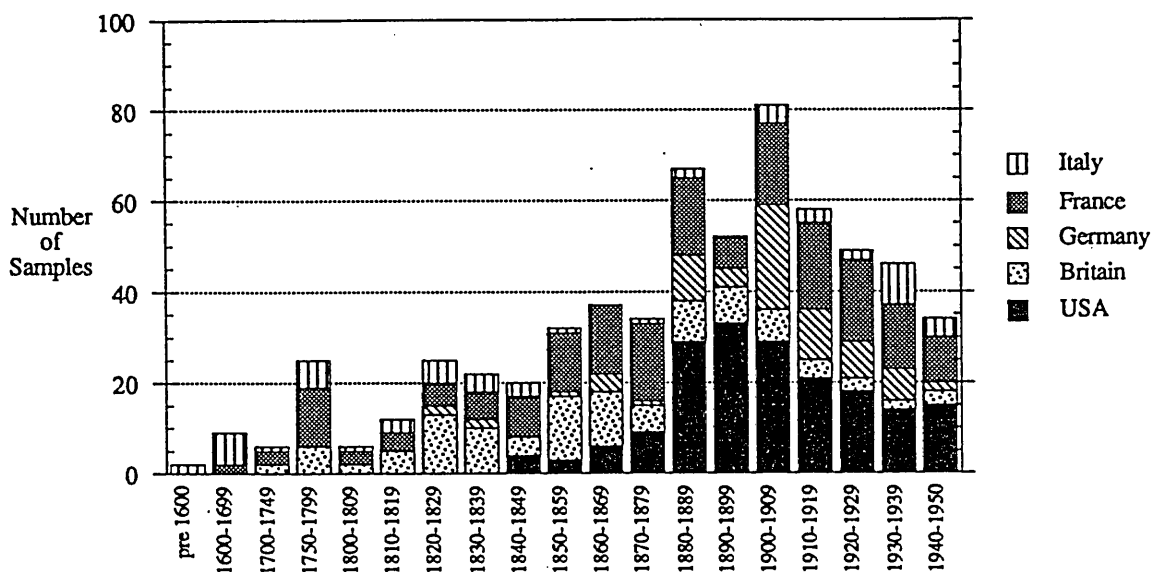
## MIT Libraries' News Goes Electronic!

**T**his issue inaugurates the electronic version of *MIT Libraries' News*. We hope the wider distribution made possible by the electronic medium will inform our users better about the Libraries' services and collections.

The *News* will continue to be printed and distributed to the current mailing list with an electronic version also accessible through MITosis, the Libraries' Gopher. See *The Libraries' Gopher Provides Easy Access to Internet Resources*, page 5 for information on how to reach MITosis. Once in MITosis choose Other MIT Library Services from the main screen, then MIT Libraries' Publications, and finally, MIT Libraries' News. For the present, the new electronic version will be a text-only document; no photos, graphs, charts, or other illustrations will be displayed in this format.

*Carol Zoppel, Assistant to the Director of Libraries*

## AGE OF COLLECTION BY PLACE OF PUBLICATION



important works are to remain available to current and future students.

As a first step, library staff members worked with preservation consultant, Nancy Carlson Schrock, to conduct a physical condition survey using a random sample from the 3,500 volumes published prior to 1950. The survey instrument, *Surveyor*, was developed by the Harvard University Libraries' Preservation Office. With the overall finding that only 7% of the collection is in excellent condition, it is useful to know more about the 93% of the volumes that are in need of preservation treatment.

The graph, *Age of Collection by Place of Publication*, reflects the changing trends in architectural education. In the nineteenth century, the Library collected sixteenth and seventeenth century Italian treatises, eighteenth century French and English folios, and nineteenth century works in the French Beaux Arts tradition. American publications did not play a significant role until the late nineteenth century. German publications figure most prominently during the early twentieth century, the time of the Bauhaus Movement.

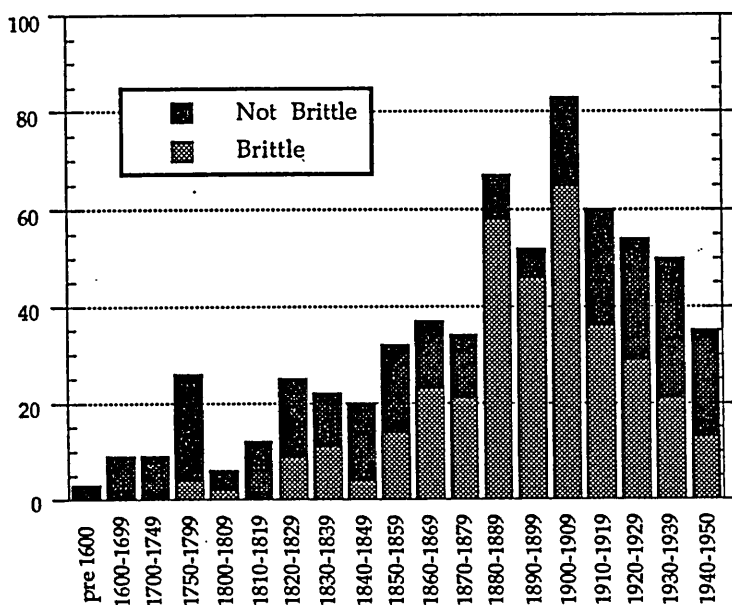
The presence of acids in paper has a major impact on paper durability because the hydrolysis of acids within paper causes deterioration and weakens the fibers. This is particularly evident in machine made papers produced after 1840. Acid content

increased because of the introduction of acidic wood pulp, alum-rosin size, and chlorine bleach in the papermaking process. As could be expected from the age of the collection, 89.5% of the Rotch volumes have acidic paper. In uncontrolled environments, acidic paper becomes brittle enough to break instead of flexing when handled. In 29% (over 1,000 volumes) the paper is now brittle.

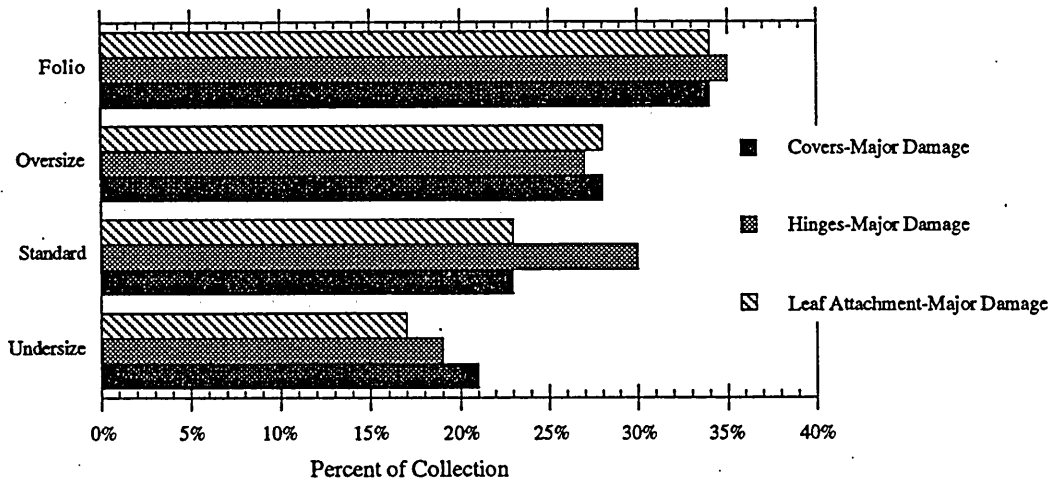
Bookbindings, constructed in a variety of materials and methods, provide structure and protection for the pages. A binding, especially an original binding, may also provide historical evidence about the book, its production, its place in social history, or its owner. While 28% of these rare books have rebindings of varying quality, 72% are still in original or early bindings.

Architecture and art books are often produced in large

## Number of Brittle/Not Brittle Samples by Decade



### TYPES OF BINDING DAMAGE BY SIZE



page formats, and in this collection 30% are oversize and 29% are folio-size. Their weight and unwieldiness make them difficult to handle carefully; their size makes them hard to shelve. The survey shows that volume size is a factor in the condition of covers, hinges, and the areas where the leaves attach to the binding structures.

In addition to paper and binding condition, the survey examined illustrations which account for much of the use and value of the volumes. Illustrations are contained in 92% of the works; this factor is a major influence in selecting preservation treatments.

Library staff are developing a set of preservation strategies, based on the survey results, conservation expertise, and the research significance of the collection and the needs of users. Conservation work on this scale will cost a substantial amount, so the Libraries will be exploring grant and other funding possibilities. Preserving these special volumes will insure that the treasures of the Rotch Library remain available for future generations of students.

*Jennifer Banks*  
 Head, Preservation & Collection Management Services

*Nancy Carlson Schrock*  
 Preservation Consultant

*Merrill Smith*  
 Associate Head, Rotch Library



*Margaret Martin-Heaton, new Assistant Archivist.*

### *New Professional Staff*

In August the Libraries welcomed Margaret Martin-Heaton to the staff as Assistant Archivist in the Institute Archives. Though Ms. Martin-Heaton has just joined the staff, she is not new to the Libraries, having served as an intern in the Institute Archives while a student in the Simmons College School of Library and Information Science. Most recently she was involved with a project to make the special collections finding aids of the Stanford University Libraries available online.

Her educational accomplishments include a B.A. in economics and history from the University of Windsor, in Ontario, a Master's degree from the same institution, and a Master's in library and information science from Simmons College.

*Carol Zoppel, Assistant to the Director of Libraries*

## Aeronautics and Astronautics Library

Photos of satellites or astronauts, maps and airport information for pilots, specifications for planes built in 1912, reports on rocket research conducted in 1930 - all this and more can be found in the Aeronautics and Astronautics Library in Building 33.

The Library, originally established by the Department of Aeronautical Engineering, became a part of the Institute Library System in 1941. It is a Branch of Barker Engineering Library. Located in Room 33-316, in the Department of Aeronautics and Astronautics, the Library maintains a close relationship with Aero/Astro students, faculty and staff. It is available for use by all patrons of the MIT Libraries.

The collection includes 9,000 books and 70 journal titles related to the fields of aeronautics and astronautics. The reference collection includes such works as *Jane's All The World's Aircraft*, an encyclopedia of aircraft, gliders, and engines, with annual volumes dating back to 1909; *Jane's Space Directory* which covers all the space programs worldwide; and *Jane's Avionics* which includes information about research on and the manufacture of all electronic equipment related to aviation and aerospace. Another reference work, of particular interest to pilots, is *Aviation USA*, which includes runway length, lighting information, communication frequencies, and pattern altitudes for both publicly and privately owned US airports. Government issued aeronautical charts and maps are also available.

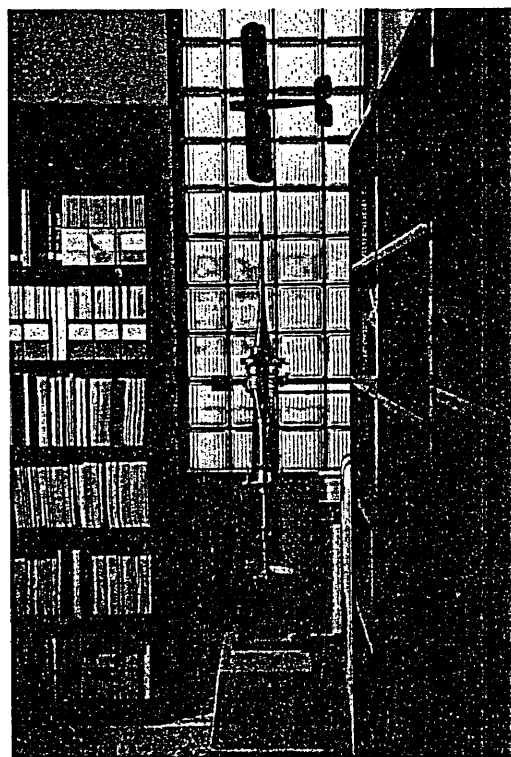
A complete collection of early conference papers of the American Rocket Society and its successor, the American Institute of Aeronautics and Astronautics (AIAA), dating back to 1953 are held by the Library, as is an extensive microfiche collection of half a million reports. These include all the reports of the National Advisory Committee for Aeronautics, the precursor to NASA, which began publishing reports in the early twentieth century, and a large collection of NASA technical reports. The Library receives thousands of NASA reports each year.

Indexes, both paper and electronic, provide access to technical reports and journal articles. *International Aerospace Abstracts* does this for journal articles and conference papers back to 1936 while its NASA counterpart, *Scientific and Technical Reports (STAR)*, covers the technical report literature from 1915.

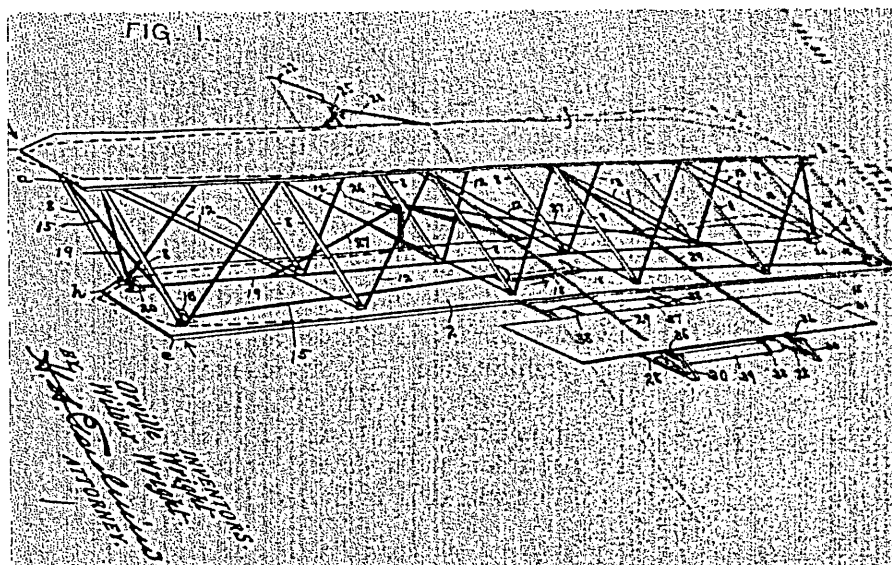
Compact disks provide the same information for papers and reports published in the past eight years. Electronic access to reports dating from the early 1900's is also offered by library staff through RECON, a NASA database.

The Aeronautics and Astronautics Library is the home of a rich collection of current and historical research materials, providing information for the research engineer, the pilot, and the historian.

Eileen Dorschner,  
Aeronautics and Astronautics  
Librarian



A balance to measure forces and moments acting on the model in a wind tunnel resides in the Library.



A page from the Wright brother's patent for their flying machine.

# The Libraries' Gopher Provides Easy Access to Internet Resources

It is apparent that the Internet is a mixed blessing. Although it is clear that this high-speed, global network can deliver astoundingly complex information, it is equally clear that without appropriate tools to manage the information many of the advantages of the Internet can be severely blunted. As the Internet began to expand, the MIT Libraries realized that methods of organizing Internet information could be of benefit to the MIT community.

In July 1993 a committee was formed to begin investigating the possibility of organizing Internet information through the use of Gopher, an Internet software tool developed at the University of Minnesota. The Gopher program allows Internet resources to be arranged in hierarchical menus. The resources are "linked" to the MIT Libraries' Gopher so that even though a database can be explored in its entirety, the resource might actually be located on a computer system in another state or country. This method of searching from menu to menu, often called "burrowing down the gopherhole," allows instantaneous connection to a multitude of Internet sites around the world.

Gopher is particularly useful since it makes it possible to access sites via other Gophers, using file transfer protocol sessions (ftp), telnet sessions, or directly accessing the Gopher. If a resource is

available on the Internet it is possible to link it to a Gopher. Information may be downloaded to a file, or saved as an e-mail message, or printed directly. The information may itself be in the form of a text file, a database, or a graphical image.

FIGURE 1

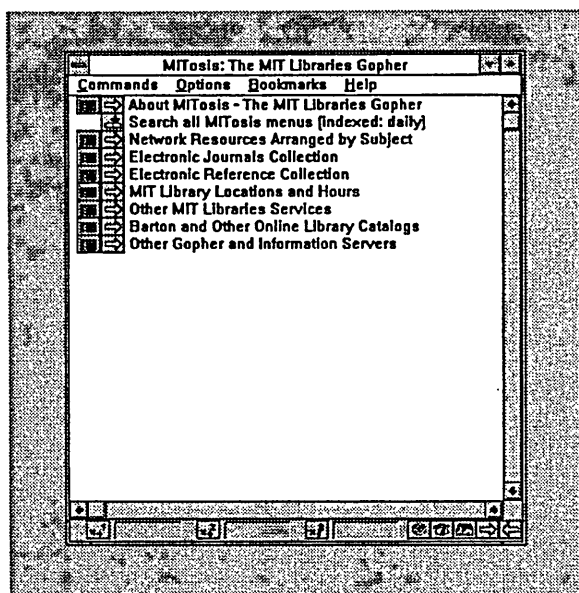
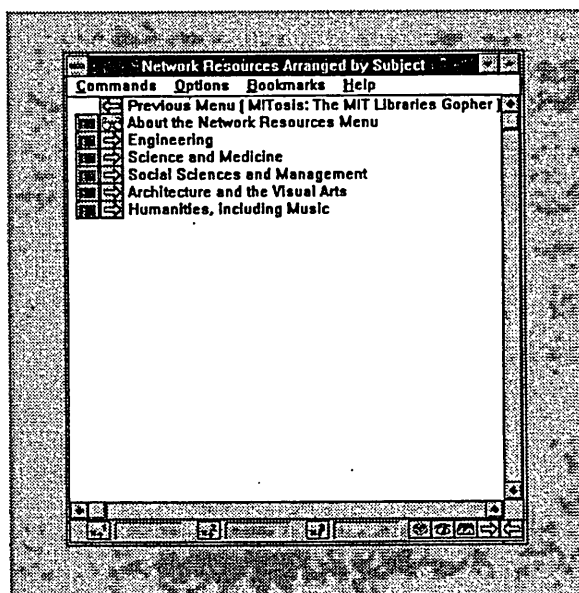


FIGURE 2



After a year of analysis and deliberation the Libraries' Gopher committee has unveiled MITosis—the MIT Libraries' Gopher. The committee has striven to construct menus that provide clear and unambiguous information about the resources contained on the Gopher. They have also tried to select from the plethora of Internet sites information that represents the most useful and timely for the MIT community. As Figure 1 illustrates, the opening menus of MITosis contain a number of choices that describe the Gopher and its organization, offer general information about the Libraries, and provide access to libraries and Internet resources.

Examples of the types of Internet resources gathered together so far include such basic reference information as dictionaries, thesauri, electronic phone books, a zip code directory and various handbooks. Other resources include the Department of Commerce's *Economic Bulletin Board*, the full-text of the *Health Security Plan*, Supreme

Court decisions, electronic texts, architectural images, technical manuals, and world climate data.

To alleviate needless searching MITosis presents the user with a minimalist menu of precise menu choices. After an initial file describing MITosis the user can access library information in the form of library hours and phone numbers as well as subject specialists, their phone numbers and e-mail addresses. Some users will already be familiar with this menu since it points to the menu items on MIT's Campus Wide Information System, Techinfo.

*Network Resources Arranged by Discipline* contains Internet resources chosen by library subject selectors. These are divided into broad subject areas with the specific disciplines contained as sub-directories. Figure 2 illustrates the network resource menu. Consequently, if you are looking for Internet resources in computer science you access the engineering directory. Similarly, if you are looking of economic data, access the social sciences and management directory.

The *Electronic Journals* directory will contain the Libraries' collection of e-journals. Some of these publications will be mounted locally with full-text availability, indexing and search capability. Other Internet e-journals may also be available here.

*Barton and Other Library Online Catalogs* provides a telnet session to the network version of Barton, the Libraries' online public access catalog. You may also search the journals holdings of all the Boston Library Consortium (BLC) libraries here, as well as many of the online catalogs of BLC libraries. Other online catalogs such as those of Harvard and the Library of Congress are also reachable from here.

*Look It Up - Online Reference Collection* provides handy "quick reference" information such as dictionaries, thesauri, directories, and indexes.

The popularity of MITosis is evidenced by its early use; between September 1st, when it was made available to the public, and September 27th there were 777 logins to the gopher.

MITosis is available to Athena and MITVMA/C users, and to Macintosh or DOS/Windows users who have an MITnet connection. You can connect to MITosis using either a Gopher client or a World-Wide Web browser such as Mosaic. See box at right for instructions about how to reach MITosis. For information about these network applications and how to get them, contact the Network Help Desk at x3-4101 or <net-help@mit.edu>.

The Libraries welcome questions, comments, or suggestions for further additions to the library gopher. The gopher team may be reached at <mitosis-lib@mit.edu>.

Keith Morgan, Assistant Dewey Librarian

## ACCESS TO MITOSIS

### Via Gopher

\* *From Athena* - at the Athena prompt type **add library;mitosis**. On workstations the XGopher client will start. If you are dialed in or running your Athena session through a Macintosh or PC, the text-based gopher client will start.

\* *From Macintosh or DOS/Windows* - many Gopher clients are available for these platforms. All give you the ability to "point" your client at a given address and port. The address for MITosis is <mitosis.mit.edu> and it runs on the default gopher port, 70.

\* *From MITVMA/C* - type gopher at the cms Ready prompt. This takes you to the MIT gopher main menu. Use the arrow keys to select **Massachusetts Institute of Technology Libraries — MITosis**. You can also dial into MITVMA/C to access MITosis.

### Via a Web Browser

\* *From Athena* - choose **Communication — Mosaic-MIT Home Page** from the Dash menu. Select the **Academics** link, then the **Libraries** link.

\* *From Macintosh or DOS/Windows* - you can get to MITosis from the MIT Home Page under **Academics**. Another option is to open the MITosis URL directly:

**gopher://mitosis.mit.edu:70/**

## Libraries Participate in Electronic Journals Experiment

**T**ULIP (The University Licensing Program) was started in March of 1991 as an experiment by Elsevier Science Publishers at the urging of university systems and library leaders. The basic question that both the publisher and the universities wanted answered was: "What is the quickest, most economically feasible method of distributing

traditional journal literature in electronic form?"

Now, three and a half years later MIT along with Carnegie Mellon University, Cornell University, Georgia Tech, Princeton University, the University of California, the University of Michigan, the University of Tennessee, the University of Washington, and Virginia Tech are offering 42

materials science journals published by Elsevier in electronic form. Titles include *Journal of Crystal Growth, Optical Materials, Materials Science & Engineering A & B, Chemical Engineering & Processing* and *Wear*. Each university has had the responsibility of planning its own implementation and ensuring that it fit within its established infrastructure, so

the methods of implementation among them have been very different.

MIT viewed TULIP as one of the projects to be worked on by the Libraries and Information Systems as part of the jointly sponsored Distributed Library Initiative. The DLI's focus is on revolutionizing electronic library services to the MIT community and the goal for TULIP was to develop and implement a system which could potentially act as a template for other full-text and bibliographic databases. Therefore, the investment in resources should not serve only this experimental project, but provide one viable method of delivery for all journals in electronic form to the MIT community.

The experiment, which runs through 1995, involves the delivery of 300 dots per inch bit-mapped journal page images, structured ASCII bibliographic information and abstracts, and unstructured raw ASCII full-text, of the 42 journals from 1991 to the present. About 250 megabytes of new material are received weekly. Currently, the data occupies 28 gigabytes of storage space, 17 of which are supplied by the Library 2000 project.

MIT is using two methods of accessing the information. The Willow interface provides users with the means to search and access the bibliographic data in the standard ways, i.e. author, title, subject. The primary work on this interface was done by Bill Cattey ('83) of Information Systems. The other method of access is provided through the NCSA Mosaic interface. This model allows the browsing of the tables of contents of the journals and then provides access to the full-text of the article. It was developed primarily by Mitchell Charity of the Library 2000 Project and Bill Cattey. Both systems allow printing of the



Craig Counterman left ('83, PhD '91) of the Department of Materials Science and Engineering and Bill Cattey right ('83) of Information Systems work on TULIP.

full-text of the article and there is a "zoom" capability available which enlarges the page images on the screen.

At present, the only access to TULIP is through an Athena workstation.

To enable access type: **add library**  
The first time you run the system, type: **plant-tulip**  
To run the bibliographic search tool, type\*: **willow**  
\*(you must type add library before running the session)

To access the table of contents for browsing through Mosaic, open the URL\*\*: **http://bulb.mit.edu/bulb**  
\*\*(if mosaic was running before you typed add library and plant-tulip, you must restart it)

For more information on TULIP or any comments, please feel free to contact any member of the TULIP implementation team:

Greg Anderson - Associate Director for Systems & Planning  
Ruth Seidman - Head, Engineering & Science Libraries  
Margret Lippert - Associate Head, Engineering & Science Libraries  
Suzanne Weiner - Assistant Engineering & Science Librarian  
Bill Cattey - Senior Analyst Programmer, I. S.  
Craig Counterman - Post Doctoral Associate, DMSE.

or send e-mail to [bulb@mit.edu](mailto:bulb@mit.edu).

Suzanne T. Weiner  
Assistant Engineering & Science Librarian

MIT Libraries' News, an official publication of the MIT Libraries, is published twice a year.

Edited and designed by Carol Zoppel. Photographs by L. Barry Hetherington.

Correspondence should be addressed to:

The Director of Libraries,  
Room 14S-216,  
MIT  
Cambridge, MA 02139

**In This Issue:**

Preserving Rotch Library's Treasures

*MIT Libraries' News* Goes Electronic!

New Professional Staff

Aeronautics and Astronautics Library

The Libraries' Gopher Provides Easy Access to Internet Resources

Libraries Participate in Electronic Journals Experiment

The MIT Libraries  
Office of the Director  
Room 14S-216  
Massachusetts Institute of Technology  
Cambridge, MA 02139-4307