

MIT Museum

We completed work on our strategic plan for 2000-2005 and accomplished a number of important goals. We had particular success with the areas that relate to improving the museum experience and the museum as a keeper of MIT's heritage.

For the final year of the plan, we set two major goals. The first was to further develop public programs for adult audiences. To make progress on this goal, we hired a museum consultant to work with staff to help identify our niche given the character of our adult audience, brainstorm and develop new program ideas, and plan for their implementation. The second goal was to optimize and upgrade our collections storage and workspaces. Working with the Department of Facilities, we retained the museum architecture and planning firm of E. Verner Johnson and Associates to assist with a study to optimize collections storage and staff work areas. The Committee for the Review of Space Planning made a \$150,000 commitment to begin the first phase of improvements recommended by the study. They will commence early in FY2006.

The museum served 72,049 visitors this year at the main exhibition center and the Compton and Hart Nautical Galleries. They included 5,537 people who were part of groups visiting from a college, K-12 school, summer camp, human service organization, corporation, or MIT-affiliated organization. Free admission on the third Sunday of every month continues to attract a significant number of visitors from the community and the metropolitan area

Collections

The museum made 16 new acquisitions, adding to all five collections. Highlights include a one-of-a-kind object: a half-hull "hawks' nest"-style model of the clipper ship *Lightning*. The model was commissioned for the exhibition *The Clipper Ship Era* and built by renowned model maker Robert Napier. Another unique acquisition was a hologram portrait of Charles M. Vest—the first MIT presidential portrait in that medium.

Museum staff processed 32 new loans, bringing the total of active loans with other institutions to 90. Joan Whitlow, registrar and collections manager, worked extensively on the refurbishment of Gray House and the President's office, placing 58 items from the collection in Gray House and 11 items in Susan Hockfield's office.

Architecture and Design Collection

Curator Gary Van Zante coordinated two new exhibitions for the museum. *The Art of Structural Design: A Swiss Legacy*, was on view in Compton Gallery from September through December 2004. It presented the work of six highly influential Swiss engineers who transformed the practice of structural engineering in the 20th century, through drawings, photographs, videos, and study models executed by architectural design and engineering students. Organized in collaboration with the Princeton University Art Museum, the exhibition was the MIT Museum's first collaboration with the Princeton museum and with SHARE, the Swiss House for Advanced Research of the Consulate of Switzerland, the principal funder. The opening was hosted by then-President Vest, who

introduced the opening speaker and principal curator of the exhibition, Professor David Billington of Princeton University. Guests of honor included Christian Blickensdorfer, ambassador of Switzerland to the United States, and Gerhard Schmidt, vice president of ETH Zurich, the Swiss Federal Institute of Technology. Also in conjunction with this exhibition, and in collaboration with John Ochsendorf, assistant professor of architecture, the museum organized a Saturday workshop and lecture on covered bridge building, featuring Arnold M. Graton, a third-generation wooden bridge builder in New Hampshire.

The second exhibition was *Building Stata: Photographs by Richard Sobol*, mounted in the Compton Gallery in February 2005. It was developed with Boston photographer Richard Sobol, who was commissioned by MIT to document construction of the Stata Center. Sobol's photographs were featured in the recent MIT Press book, *Building Stata*.

Research and preparation continued during the year for a new exhibition, *Reinventing the House*. It will focus on the Monsanto House of the Future, which is documented in collections acquired last year and supplemented this year.

With Larry Sass, assistant professor of architecture, and Richard Tuttle, professor of art history at Tulane University, Van Zante conducted an Independent Activities Period (IAP) course titled Investigating a Renaissance Drawing. The course utilized last year's acquisition of a 16th-century architectural drawing attributed to Baldassare Peruzzi, which is also the focus of ongoing research and preparation for the exhibition *Peruzzi in Perspective* in 2006. The museum's oldest drawing and this research and exhibition project were also featured in articles in *Technology Review* (November 2004: "Gems from the Museum") and *Thresholds* (volume 28, spring 2005: "A Renaissance Drawing at MIT").

The teaching assistantship funded by the School of Architecture and Planning continued through the year. Svea Heineman, a graduate student in the History, Theory, and Criticism of Architecture and Art Program, worked under Van Zante's direction for a second year, primarily on research and analysis of the Peruzzi drawing. In preparation for the upcoming exhibition of the drawing, she created digital reconstructions, perspective projections and 3-D models, and exhibition graphics. The third year of participation in the Tufts University Architectural Studies Internship brought a Tufts student, Diana Lin, into the museum in the spring. Her work formed the basis for her senior seminar presentation at Tufts.

Course participation during the academic year included 4.654 Advanced Study in Modern Architecture, taught by Alice Friedman, which met in the museum to study the House of the Future Collection. Several students developed term projects from this material. Subject 4.692 Special Studies in the History, Theory, and Criticism of Art, with instructor Erika Naginski, also met in the museum, working with the Ware Study Collection.

Gifts this year to the House of the Future Collection from Robert Whittier '51, the Marjorie Pierce '22 Collection from Barbara Roman, and the Architects Collaborative Collection from Walter Rosenfeld added material to those collections. Negotiations continued with retired faculty member Richard Filipowski for substantial additions to his collection, and with Mary Otis Stevens '56, one of the most important female architects of the last 50 years, for new material and additions to the archive of Thomas McNulty (her former partner).

Hart Nautical Collections

The major collections management activity over the past year was the processing of recent additions to the Professor George Owen 1894 Collection and production of the museum's first definitive online guide to a major collection. The guide provides item-level description for 3,700 plans, photographs, slides, models, and manuscripts produced and collected by Owen. Planning is under way to add additional guides describing Hart Collections and to build the infrastructure for adding online image databases of collections to the museum's website.

Use of the Hart Collections increased significantly over last year. Over 1,300 inquiries resulted in \$15,261 in gross revenue from Hart Collections use, an all-time record. Of this total, \$2,135 was received for use fees. Plans, photographs, marine art, and historical materials were requested for historic vessel restoration, replica vessels, models, design study, personal display, publication, and loans to other museums.

Curator Kurt Hasselbalch and curatorial assistant Jenny O'Neill produced the highly successful exhibition *The Clipper Ship Era*, based on the Captain A. H. Clark Collection. The curator led six gallery talks and hosted two related lectures. The exhibition received positive press in a number of magazines, including *Technology Review*.

January 2005 marked completion of the sixth year of the museum's IAP nautical skills program. Since the first year, the museum and the deans of engineering and architecture, along with the Edgerton Center, have invested over \$20,000 in support of this hands-on course. This year a new course, *The Art of Traditional Boat Design*, was developed. It brought in a practicing naval architect to work with MIT students who wanted to learn about traditional approaches to boat design and drafting skills.

Holography Collection

Joan Whitlow and Stephanie Hunt, research associate in emerging technologies, hosted a gathering of professionals for a day-long investigation and brainstorming session on holography preservation, where they discussed emulsion-related degradation and its effect on holographic film. Participants included Dirk Armstrong, assistant curator at the Salvador Dalí Museum, St. Petersburg, FL; Beth Price, senior scientist, and Sally Malenka, conservator of decorative arts and sculpture, Philadelphia Museum of Art; and Mike Halle AR '97, who worked with the late Professor Steve Benton of the Spatial Imaging Group.

Science and Technology Collection

The acquisition of the Keuffel & Esser Company Slide Rule Collection has resulted in the start of several important planning initiatives related to its preservation and exhibition. Curator Deborah Douglas has cultivated a special relationship with the Oughtred Society (dedicated to the preservation of slide rule history) and has made presentations at its east and west coast meetings. She is conducting a survey of collectors to facilitate the development of an internationally recognized cataloging standard for slide rules. Most significantly, the museum received a grant from the Alice Willard Dorr Foundation for the purchase of new storage furniture for the collection. A preliminary planning workshop for the exhibition was held in December 2004.



Deborah Douglas, curator of science and technology for the MIT Museum, sprawls among some of the 600 historic slide rules that were recently donated to the museum. Photo by Donna Coveney.

The curator worked on several small campus-based projects, including a new display on MIT alumna Shirley Ann Jackson for the Infinite Corridor. A small exhibit of six fine aviation prints by French artists Ernest and Marguerite Montaut, from the Ralph Eastman/State Street Bank Collection, opened in late June. The museum prepared several artifacts for loan, including items lent to the Cerith Wyn Evans exhibitions at the Museum of Fine Arts and the List Visual Arts Center, the Chicago Museum of Science and Industry, Indiana University, and the Atomic Testing Museum.

The three-year project to catalog and rehouse the nearly 24,000 images in the MIT Radiation Laboratory Negatives Collection (which includes images from the early years of the Research Laboratory of Electronics) has been completed. A temporary exhibition of images from the collection will be on display at the museum beginning in the fall of 2005.

The curator responded to 180 separate inquiries and gave talks, lectures, and programs serving nearly 900 people. She worked with graduate and undergraduate classes from MIT, Harvard, and Boston University. Of particular note was the collaboration with the MIT Program in Science, Technology, and Society, in which an Undergraduate Research Opportunities Program student helped to digitize a portion of the Scott Globus MIT Laboratory Photograph Collection that will be featured in a new exhibition in Compton Gallery in the fall.

Scholars, researchers, and journalists from MIT, the National Academy of Sciences, Cornell, Harvard, Brown, Chemical Heritage Foundation, National Air and Space Museum, Charles River Museum of Industry, and Amherst College's Mead Art Museum all made use of the collection. The curator worked with media and documentary producers from the History Channel, National Public Radio's *Only A Game*, the Boston

Discovery Tour video, *iRobot* (documentary film), *New York Times*, *Boston Globe*, and *Technology Review*. She also supervised six interns and volunteers.

MIT General Collection

Curatorial assistant Jenny O'Neill processed 170 research requests, which included 136 image requests. She assisted 31 researchers who used the collection in person and responded to 38 internal MIT requests. The museum contributed material to 39 books and articles and four documentaries. Notable publications included *The Electron and the Bit: EECS at MIT, 1902–2002*, and *Dark Hero of the Information Age*, a biography of Norbert Wiener. She also completed work on an online *Guide to MIT Subject Files* that will significantly expand intellectual access to this component of the MIT General Collections.

Exhibitions

Emerging Technologies Initiative

The Emerging Technologies Initiative is designed to accomplish three of the museum's primary goals:

- To play a leadership role in developing visitor experiences to highlight MIT researchers and their most current research-based technologies
- To be a gathering place for the MIT community and the broader public interested in current research initiatives at the Institute
- To serve as a role model for other museums in the field of public understanding of emerging technologies.

In January 2005, the museum completed construction of the Emerging Technologies Gallery. Funded primarily through the Friends of the MIT Museum, this 250-square-foot gallery was designed to accommodate a wide variety of technology-related exhibits.

Stephanie Hunt, research associate, worked with other museum staff, interns, and Institute collaborators to meet the museum's goals through the following exhibits and public programs developed and executed through the Emerging Technologies Initiative:

- *Visualizing Physics: Transforming Science Learning at MIT* (December 15, 2004–June 19, 2005), a collaboration with the Technology-Enabled Active Learning (TEAL) project (MIT Department of Physics and the Center for Educational Computing Initiatives). Associated events included the IAP panel discussion "Teaching Physics Since World War II," held on January 26, 2005, and the opening reception



The first exhibit in the Emerging Technologies Gallery, Young Inventors at MIT, utilized the design's modular exhibit casing.

for *Visualizing Physics* on February 16, 2005. Electricity and Magnetism Laboratory demonstrations relating to *Visualizing Physics* were presented from January through June.

- *Young Inventors at MIT* (January 25–March 28, 2005), developed with the Lemelson-MIT Program. The museum hosted the 2005 Student Prize Winner’s Luncheon on February 16 and the Innovation Forum (panel discussion) on March 8.
- *The Body+: Dance Portraits, Animations, and Multimedia Performance Works* (April 12–May 1, 2005), a collaboration with the MIT Center for Advanced Visual Studies for the Boston Cyberarts Festival. On April 23, participants in the Ideas in Motion Conference received a guided tour of the museum.
- *COLLISIONbox: Drift Grid* (May 4–May 15, 2005), an exhibit organized with the MIT Collision Collective. The MIT Collision Collective meeting and *Drift Grid* opening were held at the museum on May 8.
- *COLLISIONbox: backUP #2* (May 17–June 5, 2005), a sequel exhibit with the MIT Collision Collective. The museum hosted the MIT Collision Collective meeting along with the *backUP #2* opening on May 26.
- *InvenTeams Showcase* exhibit (June 14–August 14, 2005), a second venture with the Lemelson-MIT Program.

Looking forward to the next fiscal year, the Emerging Technologies Initiative will draw from departments and researchers across the Institute to feature an ever-expanding variety of new and innovative research topics. In addition to broadened collaboration with old and new MIT partners, staff will continue to explore new opportunities to work with external museum and corporate partners. The initiative will also have a presence within the larger museum professional community in FY2006, including participation in the Museum Computer Network annual conference in November.



MIT freshman George Zaidan stands beside his image, which was featured in the MIT Museum’s *Visualizing Physics* exhibit.



MIT student facilitators shared laboratory experiments from their introductory physics class with museum visitors. Visualizations of these experiments were displayed in the *Visualizing Physics* exhibit.

Compton Gallery

As reported earlier, two new temporary exhibitions—*The Art of Structural Design: A Swiss Legacy* and *Constructing Stata: Photographs by Richard Sobol*—were installed in the museum’s Compton Gallery.

Traveling Exhibitions

Seeing the Unseen: Photographs of Harold E. Edgerton traveled to the Southern Ohio Museum and Cultural Center, Portsmouth, OH; Springfield Museum of Art, Springfield, OH; McMinn County Living Heritage Museum, Athens, TN; Washington Pavilion of Arts and Science, Sioux Falls, SD; and Atomic Testing Museum, Las Vegas, NV.



Members of the MIT Collision Collective speak with artist Jack Bachrach about his most recent work during an evening reception in the Emerging Technologies Gallery.

Education, Public Programs, and Outreach

Evaluation

We continue to evaluate our audiences and assess our programs. By gaining a better understanding of who our audiences are and by conducting research to discover their interests, we can determine how to serve them better. Because of its ties to MIT and relationships with faculty and researchers, the museum can provide experiences and resources that other institutions cannot. It is clear from the results of surveys that people are interested in what goes on at MIT behind closed lab doors. Some of the programming that has received the highest marks relates to public understanding of research and researchers. During the past year we continued to focus increasingly on these topics.

Adult Programs

We expanded our year-long schedule to include a lecture series (cosponsored with the Department of Architecture, Department of Civil and Environmental Engineering, and ETH Zurich) on Swiss bridge design for the *Swiss Legacy* exhibition; five gallery talks (two general/whole museum and three related to *The Clipper Ship Era* exhibition); five Object Lessons talks (the hip simulator with Robert Mann, bubble chamber with Irwin Pless, slide rules, core memory, and LNG submarines); and a panel discussion and walking tours focusing on the Stata Center in conjunction with the exhibition *Constructing Stata*.

For IAP we offered five different courses. Topics included techniques for making holograms, traditional boat design, research on a renaissance architectural drawing, and the teaching of physics since World War II.

We received a grant from the Graduate Students Office to provide a slate of targeted programs for graduate students. The 2004–2005 series consisted of three evening events in November, February, and April, and one holography workshop during the January IAP. These programs were designed to introduce graduate students to the museum and its collections and programs and to encourage them to visit regularly and take advantage of our free services. They were also designed to build community by creating a comfortable, friendly, and informal atmosphere for socializing and the exchange of ideas. They were a great success, attracting 686 students.

Family Programs

The popular program Family Adventures in Science and Technology (FAST) continued this year. It featured students, faculty, and researchers from the Terrascope program of the Earth System Initiative, the Department of Brain and Cognitive Sciences, the Center for Environmental Health Sciences, the Environment, Health, and Safety Office, and the Program in Media Arts and Sciences. Holographer Betsy Connors presented a series of holography education programs, including lab-based classes, from January to June.

The annual Friday After Thanksgiving Chain Reaction with Arthur Ganson set records in 2004, with 30 teams and 1,400 spectators. The new location in Rockwell Cage accommodated more people and provided easier ground-level access. The entire event was recorded by a filmmaker and team of Boston high school students, and the film is now showing on Cambridge cable television.

School and Group Programs

Last summer marked the third year of participation in the Museum Institute for Teaching Science's professional development program for K-8 educators. With the Boston Children's Museum, the New England Aquarium, and Zoo New England, we offered a two-week workshop on the process of design to 60 participants.

Regular program offerings during the school year included "Color My World" (light, color, and the electromagnetic spectrum), "Here Comes the Sun" (solar and other alternative energy sources), "In the Blink of an Eye" (stroboscopy), "Lost at Sea" (navigational tools), and "Watts Up!" (electricity). These programs served 1,088 students and 90 educators from 50 schools. A special open house was held for students and parents from the Prospect Hill Academy charter school in Somerville.

For the third year in a row, the school vacation week in February became an opportunity to celebrate National Engineers Week. We were able to implement a week-long celebration thanks to the continued support of Dean Magnanti and the School of Engineering. Various departments and individuals were involved in engaging visitors in a range of hands-on activities.

Outreach

We worked with the Boston History Collaborative and an informal network of 25 organizations to sponsor events as part of Innovation Week in Boston, which was held the week preceding the Democratic National Convention. The MIT Museum was

open free to the public Sunday of that week as one of four “Museums of Innovation.” The week of the convention, we partnered with the Hotel @ MIT to offer the Indiana delegation and their families free admission to the museum as part of their welcome package.

In partnership with the Fay School in Southborough, and with generous funding from the Fay School Grandparents’ Association, EMC2, and General Electric, Beryl Rosenthal, director of exhibitions and public programs, and Jean Zheng ’06 (Department of Mechanical Engineering) spent the year developing the first middle school-level Rube Goldberg Machine Contest. Over 90 middle school students from 16 public and private schools participated in the contest in April. Eight MIT graduate and undergraduate students served as mentors to the student teams. Jean Zheng, the lead organizer and mentor, was supported by a fellowship from MIT’s Public Service Center.

Administration

Development

The museum benefited from the generosity of a range of donors who contributed over \$215,000 in cash and in-kind gifts. They included Boston Sand & Gravel, Broadway Electrical Co., Council for the Arts at MIT, Department of Physics, Alice Willard Dorr Foundation, E. M. Duggan Inc., M. J. Flaherty Co., Friends of the MIT Museum, Graduate Students Office, Karas & Karas Glass Co., Lord Foundation of Massachusetts, NEC Corp., H. Lewis Rapaport, Soep Painting Corp., Swiss House for Advanced Research and Education, and the Welch Corp. The Museum is especially grateful to the late Irene Seamans for the unrestricted funding she provided through the Irene Seamans Irrevocable Trust, in memory of Harold G. Seamans.

Retail and Functions

The museum was the setting for 59 functions that attracted 5,329 guests. In October we held an open house for event planners to promote the museum as an event venue and to showcase our approved caterers, who provided all of the food free of charge. This event had a positive impact on bookings and income, which exceeded the previous year’s performance. We are entering FY2006 with several advance bookings—a first. The sale of retail goods has also increased.

Public Relations and Marketing

We completed the first year of participation in the Go Boston Card program and have been pleased with its marketing power and ability to attract new visitors. We continue our promotional relationships with the Massachusetts Office of Tourism, the Greater Boston Convention and Visitors Bureau, the Cambridge Office for Tourism, and a number of businesses and media outlets. We particularly enjoyed being singled out by the *Let’s Go* travel guides as one of the “Top 20 Things to Do in Boston.”

Personnel

New Director

In December 2004, Dr. John Durant was appointed director of the Museum and adjunct professor in the MIT Program in Science, Technology, and Society. He is scheduled to begin work full-time on July 1, 2005. A museum director and academic researcher with extensive experience at some of England's leading science museums, he most recently served as head of At-Bristol, a science and natural history center in Bristol, England. Durant has focused much of his career on promoting public engagement with science and technology.

Interns and Volunteers

Summer 2004 interns included a teenager from the Cambridge Housing Authority's WorkForce program, a sophomore from Smith College who returned for a second year to work on the Architecture and Design Collection, and a graphic designer who had an internship through the International Yacht Restoration School. Summer volunteers included a high school junior who wrote a program to convert the museum's paper visitor survey to a PC-based survey and two college students who worked on projects with the Science and Technology Collection. During the academic year, graduate student and other interns contributed to collections and public programming projects. They came from the Simmons Graduate School of Library and Information Science, Tufts University Museum Studies Certificate Program, Harvard Graduate School of Education, and the Special Program for Urban and Regional Studies in the Department of Urban Studies and Planning. Among the volunteers during the year were a PhD candidate in history who worked with the architecture and general collections, a retiree who cleaned artifacts from the Science and Technology Collection, a retired Museum of Fine Arts curator who helped to organize *The Clipper Ship Era* exhibition, the spouse of a Sloan graduate student who worked two days a week on collections projects, a home-schooled high school student who continues to work on public programs and gallery activities, and an MIT freshman who developed and presented floor activities relating to a display focusing on the Department of Physics' TEAL program.

Deborah Douglas, Curator, Science and Technology

Stephanie Hunt, Research Associate, Emerging Technologies

Kurt Hasselbalch, Curator, Hart Nautical Collections

Mary Leen, Acting Director

Jenny O'Neill, Collections Assistant

Beryl Rosenthal, Director, Exhibitions and Public Programs

Gary Van Zante, Curator, Architecture and Design

Joan Whitlow, Registrar and Collections Manager

More information about the MIT Museum can be found online at <http://web.mit.edu/museum/>. Additional project documentation about the Emerging Technologies Initiative is available at <http://emergingtech.mit.edu/>.