

September 5, 1984  
Volume 29, Number 6

## Museum hours

Effective this week, the MIT Museum will be open Saturdays, 10am-4pm. The Saturday openings are made possible by a \$50,000 grant the Museum has received from the Institute of Museum Services, an agency of the US government.

"We're very happy about this," Museum Director Warren A. Seamans said. "For years people have been saying 'I wish you were open Saturdays so I could bring my family to see the exhibits.' Thanks to the grant, now we can be open."

The grant will also enable the Museum to extend its educational outreach programs in the local community and provide support for resource development.

## Notice posted

Notices are being posted throughout the Institute today notifying community members that the Institute will seek an exemption for its research laboratories as permitted under Massachusetts' new "Right to Know" law.

The law goes into effect September 26 and employers are required to post notices in prominent locations at least 21 days before filing for the exemption.

A companion notice posted by MIT and a letter to be mailed to the MIT community in the near future will provide a more detailed explanation.

Questions about the law or the application for the exemption can be directed to John M. Fresina, director of the Safety Office, x3-4736, or to Richard I. Chamberlin, associate director of the Environmental Medical Service, x3-5360.

## Blood drive

The annual R/O mini Blood Drive will be held Thursday and Friday, Sept. 6 and 7, 11:30am-5:30pm in the Sala de Puerto Rico. The drive, organized by the Technology Community Association and the Red Cross, provides an opportunity to introduce freshmen to the satisfaction being a blood donor can bring. But the drive is open to all members of the community who are 18 years old or more. No appointments are necessary and giving blood usually takes only an hour.

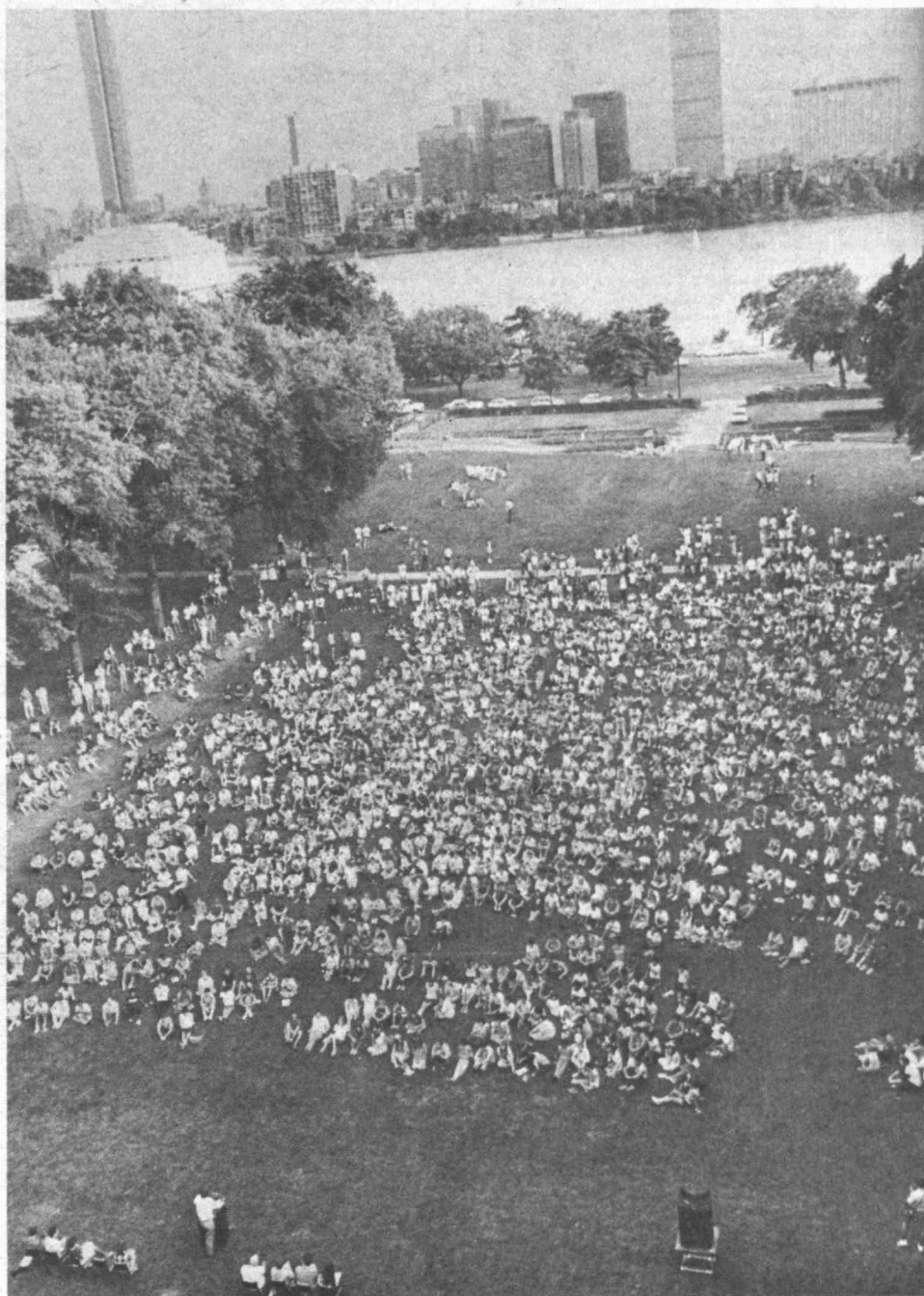
## ATM help

Representatives from BayBank and Shawmut will be in Lobby 10 this week to introduce new students and other members of the community to the Automatic Teller Machines that were recently installed across from the Cashier's Office. The machines will operate daily 8am-5pm.

The bank representatives will demonstrate how the machines work, describe what services are available, answer questions and open new accounts.

## Camera loan

Six Polaroid 600 series cameras will be available for loan to members of the MIT community through "Check This Out," a program operated by the Polaroid Foundation. The cameras feature built-in electronic flash and one button operation. They are available on a first come, first served basis for one-week loan at the desks of the Humanities (14S-100) and Rotch (7-238) Libraries. Borrowers must supply their own film and, during September, will be asked to fill out a questionnaire which will be returned to Polaroid. Other loan equipment available from the Libraries includes portable microfiche readers and audio-cassette players. Videotape monitors, film and slide projectors and phonographs may be used in the libraries.



A picnic in Killian Court opened the 10-day Residence/Orientation program of the Class of 1988. The class numbers 1,069 with a record 309 women in its ranks.

—Photo by Calvin Campbell

## MIT issues policy statement on sexually explicit films

In a policy statement on the showing of sexually explicit or pornographic films on campus, MIT has announced it will not "categorically" deny space to student groups wishing to show such films but will require that the films meet certain criteria.

If groups elect to go ahead and show films that do not meet the criteria—a determination to be made by a screening committee—then MIT will impose the following conditions, the policy statement says:

—The films may not be shown on registration day of either the fall or spring term, nor during the orientation period at the start of the fall semester.

—The films may not be shown in Kresge Auditorium.

—Sufficient prior notice must be given of the intent to show such films in order to allow others adequate time to plan, schedule and advertise an alternative and concurrent program.

—The groups showing the films will be responsible for arrangements that assure suitable conduct by the audience, and will be expected to show good taste in advertising the films.

Violations of these conditions, the statement says, can result in a hearing by the Office of the Dean for Student Affairs and sanctions that could include the recommendation by ODSA for denial of MIT space in the future.

Dean Shirley M. McBay said the policy (continued on page 8)

## Mall approach may benefit cities generally, researchers report

By CHARLES H. BALL  
Staff Writer

A new approach to urban redevelopment that has revitalized downtown shopping areas may lead to central city development on a far wider scale, say two MIT researchers.

Professors Bernard J. Frieden and Lynne B. Sagalyn say that the wave of new retail centers built in downtown areas across the country provides a "striking demonstration" of what can be achieved through joint public-private projects.

The key to success, they say, has been a restructuring of traditional relationships between the public and private sectors "to make development more of a joint venture

than ever before." The result, they write, has been "a quiet revolution in development management" in which city governments have developed an entrepreneurial style of public administration, sharing decisions with private developers and substituting negotiation for confrontation.

The researchers describe this new approach—and its likely application to other urban projects—in a working paper entitled, "Downtown Shopping Malls and the New Public-Private Strategy," issued by the MIT Center for Real Estate Development and by the MIT-Harvard Joint Center for Urban Studies.

Dr. Frieden is a professor and Dr. Sagalyn (continued on page 8)

## Freshman Class boasts 300 women

By JOANNE MILLER  
Staff Writer

This is a banner year for women at MIT.

The incoming freshman Class of 1988 includes a record 309 women among its 1,069 members. Through special recruiting efforts, the number of women undergraduates has been increasing steadily over the past decade, but this year tops 300 for the first time. The women make up nearly 29 per cent of the class.

Selected from 6,055 final applicants, the class, at 1,069, has about 40 students more than expected. Admissions Director Peter H. Richardson attributed this to a smaller than usual "summer melt." Summer melt is students who say they will matriculate in the spring but change their minds during the summer. A normal summer melt is 50-60 students, he said, while this year the number was 27.

(Mr. Richardson, who announced his retirement as director of Admissions earlier this year, left MIT following his traditional welcome to the class at the Freshman Picnic Friday. He has been named director of admissions at the Vermont Law School in South Royalton, Vt.)

The size of the class will cause some crowding in campus residences for the fall term that will result in some single rooms becoming doubles and some doubles triples. MIT freshmen are required to live in campus housing unless they live at home.

Included in the class are 66 black Americans, 26 Mexican Americans, 19 Puerto Ricans and one American Indian. Forty-seven of the minority students have been at MIT during the summer participating in Project Interphase. Interphase is an intensive seven-week program aimed at strengthening the mathe-

(continued on page 8)

## Symposium to explore future of autos

By ROBERT C. DI IORIO  
Staff Writer

Executives from most of the world's major auto companies, labor leaders and government officials will be among those who will take part September 18-19 at MIT. MIT's International Automobile Program reports on its four-year study, "The Future of the Automobile."

An estimated 500 people are expected to attend the two-day symposium which is sponsored by MIT's Industrial Liaison Program, the Center for Transportation Studies and the Center for International Studies. Among those scheduled to participate are:

Philip Caldwell, chairman of the Ford Motor Co., who will give the luncheon address on September 18.

Shoichiro Irimajiri, president of Honda of America, who will give the dinner address September 18.

Marina Whitman, vice president and chief economist at General Motors Corp., who will be a member of a panel on the future of trade relations on September 19.

Viscount Etienne Davignon, vice president of the Commission of the European Communities, who will be the luncheon speaker September 19.

Other auto company executives who will take part in various panels include:

Will Scott, vice president-governmental affairs, Ford Motor Co.

Hans Joachim Forster, research director, Daimler Benz AG.

Henrik Gustavsson, passenger car division, Saab-Scania AB.

Teruo Maeda, general manager-product development, Nissan Motor Co. Ltd.

Malcolm Harbour, marketing director, Austin Rover Group, Ltd.

Francois Perrin-Pelletier, counselor in innovation to the director, Peugeot S.A.

(continued on page 8)



# Art lottery is underway for students

More than 250 framed prints and artist-designed posters have gone on view at the Hayden Gallery, all available for loan to students and student groups for the academic year.

They are from the Catherine N. Stratton Collection of Graphic Art and the List Student Loan Program. Full-time, registered MIT students can select a work by completing sign-up cards, which will be chosen in a random lottery at the close of the exhibition September 20.

Last year more than 1,100 students and 40 student organizations registered for loans from the program. At the end of the year one student wrote, "I finally got an Andy Warhol and what a joy it was having it. Just bringing it to my apartment was exciting because everybody on the streets kept stopping me to inquire and comment about the picture."

The exhibition offers a large-scale survey of contemporary graphics in a range of techniques, including lithographs, etchings and silkscreens. Both established and younger artists are represented, ranging from Abstract Expressionists such as Robert Motherwell and Adolph Gottlieb, to Pop artists such as Andy Warhol, Jim Dine, Robert Rauschenberg, Roy Lichtenstein and Claes Oldenburg, and representational artists such as Baskin and Neil Welliver.

There are more than 40 recent additions available in the loan exhibition for the first time, including works by artists of more recent recognition, such as Jennifer Bartlett, Elizabeth Murray, Keith Haring and David Salle.

During gallery hours, weekdays 10-4pm and weekends 1-5pm, students may view the Stratton and List collections and register their first, second, and third choices for prints and posters. Authorized representatives from recognized student groups may also register to place art in public spaces used by their groups, such as fraternity or dormitory lounges, club offices and activity rooms. Loans will be limited to one work per student or group.

A complementary exhibition of Hayden Gallery posters designed by Jacqueline Casey, head of MIT Design Services, will be on display in Hayden Corridor Gallery. Many of these posters will be available for purchase.

Support for the Student Loan Program comes from friends and alumni of MIT, including the Communities Foundation of Texas, headed by Alan M. May, '57, of Dallas, and the James Taylor Family Foundation, headed by John Taylor, '72, of Mequon, Wisconsin.

The Catherine N. Stratton Collection of Graphic Art was established in 1966 by the Arts Committee (now the Council for the Arts at MIT) in tribute to Mrs. Julius A. Stratton, wife of MIT's 11th president. Mrs. Stratton's support of the visual arts at the Institute spans more than two decades.

The List Student Loan Program was established in 1977 with the gift of more than 100 framed prints and posters from the Albert and Vera List Collection, which continues annually to augment the collection with numerous graphic works. Mr. and Mrs. List are patrons and collectors of contemporary art who have made major contributions to the arts at the Lincoln Center for the Performing Arts and The New Museum of Contemporary Art in New York, Brown University, and the MIT Permanent Collection.

## Faculty son is chess master

The 16-year-old son of an MIT professor has returned from Finland with a credible showing in the World Junior Championship of chess.

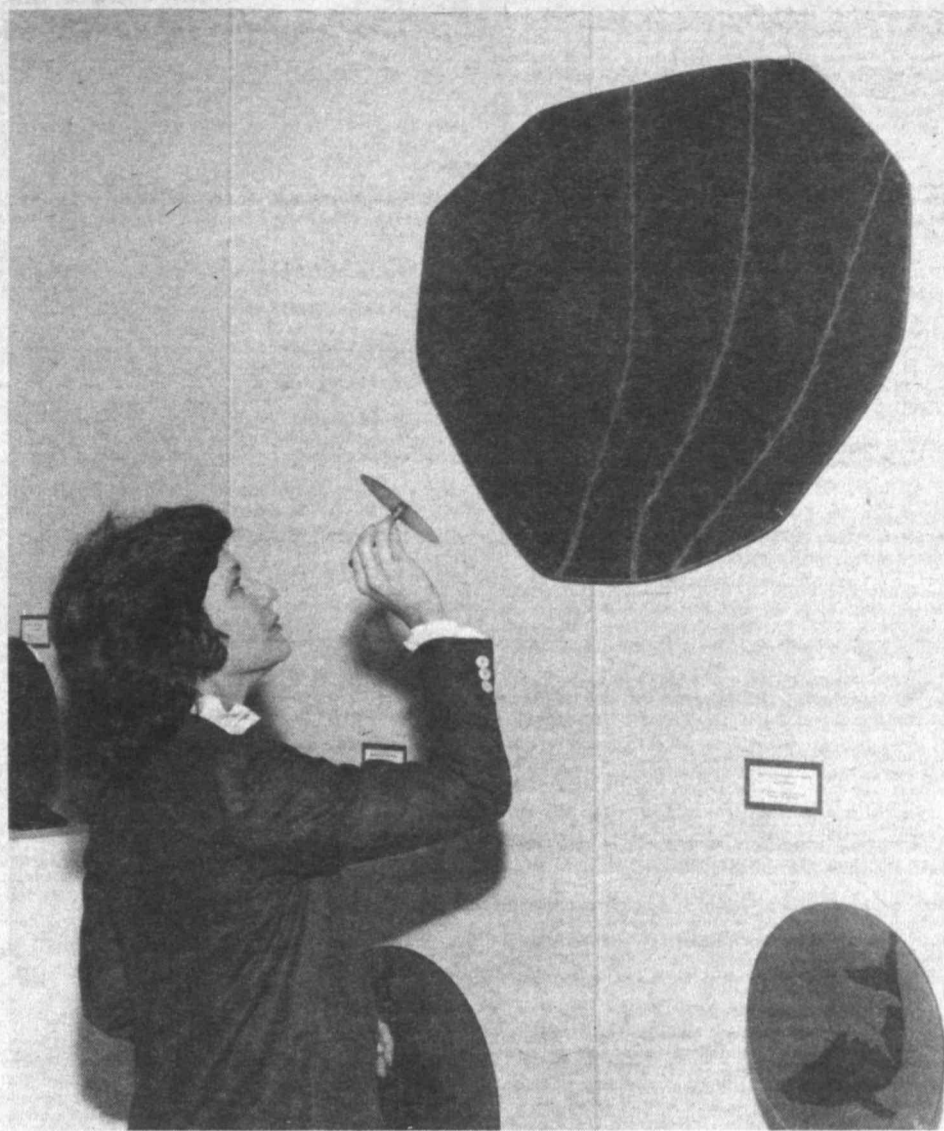
Patrick Wolff of Belmont, son of Dr. Cynthia Griffin Wolff, professor of literature in the literature section of the Department of Humanities, finished 16th out of 50 players in the Finnish competition, which was open to the top junior player in each country. The junior category is for any player under 20, and the winner was a 19-year-old Dane.

Patrick began playing chess with his father, Robert, a philosophy professor at UMass-Amherst, when he was six, and entered tournaments four years later. A senior master, the highest ranking on the national level, Patrick won the US Junior Championship in June, defeating 11 of the nation's best players.

His father said Patrick will compete again next year in the junior championship and also the US Closed Championship, in which the top 18 players in the country compete for the national title.

Patrick, who is beginning his junior year at Belmont High School, will find time about once a month to travel to New York City to study with his coach, grand master Edmar Mednis.

Patrick's mother will be on leave from MIT the first semester, completing a book on poet Emily Dickinson.



Curator Lease Plimpton looks through a filter which unlocks the images of the cellulose laminations being shown at the Lincoln Laboratory Gallery. —Photo by Mitchell Bistany

## Lincoln gallery shows 'polages'

By CHINA ALTMAN  
Staff Writer

Lincoln Laboratory's Gallery currently is showing the "polages" of Nevada artist Austin Wood who works with a new language of color produced by the interaction of cellulose laminations with polarized light.

Gallery? Lincoln? Little known to the MIT community at large, Lincoln Laboratory has sponsored an art gallery since 1962.

Located in the main corridor just past the reception area, the gallery is the responsibility of Lease A. Plimpton who works in the office of the director. She has been curator since 1977.

The present Lincoln exhibition, on view until September 12, is a preview for Ms. Wood's first major exhibit on the east coast, in the Gallery on the Green Ltd. in downtown Lincoln, Mass., September 15-October 15.

Ms. Wood coined the word, polage, from "polarized collage" to describe the art form she began developing in 1967. The images come about from the interaction of polarized light and hand-cut cellulose laminations of different thicknesses and orientations.

The experience of a typical Wood polage may be described as follows: The viewer sees a thick neutral-colored piece of cellulose, usually in a geometric shape, resting upright on a wooden holder. Each has a viewing disc, a polarized filter designed to be held in the hand. When seen through the disc the work glows with radiantly colored images. When the disc is turned new images and colors appear, often producing the effect of a metamorphosis.

As Ms. Wood said, "The experience of causing a large colorless panel to spring into an intricately colored image and then change form by a mere tiny motion of the hand is powerful. The viewer becomes part of the creative process."

Her colors come from the pure bands of the spectrum, as contrasted with traditional modes of creating and manipulating color by mixing and depositing pigments on surfaces. "In the polage," she said, "Color comes from breaking the spectrum into its components and color mixing is done by adjusting angles

of the clear cellulose."

In its first 15 years the Lincoln gallery was devoted to contemporary art. Ms. Plimpton decided to expand its scope, while keeping the original commitment to modern art.

Her exhibitions have included: French masterpieces from the 19th century, antique clocks, Japanese prints, Hudson River paintings, posters by Jacqueline Casey, head of MIT's Design Services, whaling prints, Chamberlain etchings, oriental rugs, jewelry from a master goldsmith, architectural drawings by MIT women students and several Boston area artists, including Morton C. Bradley, Kahlil Gibran and William Georganes.

She draws the exhibits from an extensive network of resources, including the MIT Museum, the MIT Committee on the Visual Arts, Harvard's Fogg Museum, the Museum of our National Heritage in Lexington, the collection of High Voltage Engineering of Burlington and from many private collectors.

One of her most popular exhibits, she said, was the result of a suggestion from Lincoln staff member Terry P. Herndon. This was the showing of an antique car model built to a 1/6th scale by antique car restorer Edgar L. Roy. She mounted it on a mirror so viewers could see more of the intricate interior.

Although Lincoln Laboratory is closed to the general public, Ms. Plimpton explained that the gallery is in a central place for viewing by the daily population of 2,100 and some 18-20,000 visitors each year.

Exhibits at the Lincoln Gallery in the near future will include a showing of lithographs from the teens of this century and a display of American quilts. Among the most popular of Ms. Plimpton's innovations has been her annual "Winter Doldrums" exhibit. During February and March she always chooses art showing beautifully colored spring and summer scenes. For more information: 181-7030.

The gallery was founded by Dr. Joseph Mindel, assistant to the director, who began by borrowing art from the Fogg and Rose Art Museums. He operated the gallery until his retirement in 1975. Dr. Frederick C. Frick, also assistant to the director, was curator from 1975 to 1977.

## It's a small world after all

Calvin Campbell, Tech Talk's photojournalist, was on a train speeding into Tokyo this summer when he got into a conversation with a woman who turned out to be a fellow American, a native of Hawaii now living in Oklahoma City.

She also turned out to be one of the hundreds of people Mr. Campbell photographs each year at MIT—but that was not immediately apparent to either of them because they had met only briefly under hectic conditions six years before.

When Cambridge was mentioned, the woman said: "Oh, I've been there. My son went to MIT and I had my picture taken with him once when he won a design contest and it was run in our home town

paper."

To which our traveling photographer replied, "If you had your picture taken at MIT, I'm probably the one who took it."

He was right. It was 1978 when John Dieken, then a junior in mechanical engineering, won that year's 2.70 contest, The Brass Rat Race. His parents—Chieko and Jack Dieken—happened to be in Cambridge the night of the contest and

had their picture taken with their son. John, who will soon receive his SM in mechanical engineering from MIT, is a research engineer for The Analyst, a Schlumberger company in Sugarland, Texas.

# George Clark to hold new Kerr Chair

Dr. George W. Clark, internationally recognized for his pioneering investigations in the field of high-energy astrophysics, has been named the first holder of the Breene M. Kerr Professorship at MIT.



The professorship has been established by Breene M. Kerr, chairman and chief executive officer of Kerr Consolidated, Inc., of Oklahoma City, to honor distinguished faculty members at MIT, where Mr. Kerr received the S.B. in geology in 1951. Appointments are expected to be for five-year periods.

The establishment of the chair was announced by President Paul E. Gray and the appointment of Dr. Clark to be the first Breene M. Kerr Professor was announced by Professor John M. Deutch, Dean of the School of Science.

"As has been true for many years now, the life of the Institute has been greatly enriched by Mr. Kerr's devotion to his alma mater," Dr. Gray said.

Professor Deutch said that Dr. Clark, the first holder of the Breene M. Kerr Chair, "is a scientist of international stature whose research has pushed back the frontiers of astrophysics. A member of our Department of Physics, since 1952, his teaching and research are of the highest standard."

An active alumnus, Mr. Kerr has played a leading role in a number of MIT activities over the years. He is a life member of the MIT Corporation and served from 1977 to 1982 on its Executive Committee. He is also a former president of the Alumni Association and chairman and a founding life member of the MIT Sustaining Fellows. He has been a member of the Visiting Committee for the Department of Earth, Atmospheric and Planetary Sciences since 1963 and is currently its chairman. From 1969 to 1975 he was a member of the Visiting Committee for the Department of Civil Engineering and chairman of that committee from 1970-1975.

Professor Clark, who received the BA from Harvard College in 1949 and the PhD from MIT in 1952, both in physics, has conducted his research primarily in the field of high-energy astrophysics. During the 1950s he investigated the properties of very high-energy cosmic rays and their interactions with the atmosphere by observations of extensive air showers and measurements of the polarization of secondary particles.

Beginning in 1958 he collaborated in a series of satellite experiments that culminated in the discovery of high-energy cosmic gamma rays. In 1964 he initiated the technique of balloon-borne X-ray astronomy with an experiment that detected the high-energy X-ray emission from the Crab Nebula.

Since 1970 he has been responsible for several satellite projects in X-ray astronomy carried out in the Center for Space Research. These have yielded extensive measurements of the positions, variations, and spectra of galactic and extragalactic X-ray sources and added many new objects to the list of X-ray sources. His publications include nearly 200 journal articles.

Professor Clark joined MIT in 1952 as an instructor, was promoted to assistant professor in 1954, associate professor in 1960 and professor in 1965. He is a fellow of the National Academy of Sciences and the American Academy of Arts and Sciences, a fellow of the American Physical Society and a fellow of the American Astronomical Society and the International Astronomical Union.

## Describing 'Doc'...

The September issue of American Photographer has an article on Professor Harold E. Edgerton, Institute Professor, which says that "in the long view of history he may go down with Galileo and Leeuwenhoek" for the "quantum leap in our knowledge of the real world" he made possible with the development of high-speed photography.

The writer, David Roberts, quotes Doc on his arrival at MIT: "There was a wonderful spirit here. Everybody was working hard. I was fortunate. They had a big lab, and everybody was interested in theory. I wasn't—I was interested in practice. So I fit right in."

Roberts says of Professor Edgerton: "...The twang that tunes his voice resonates with his native Nebraska... His diction is Harry Truman-plain; decades of academe have softened none of the blunt and colorful idioms with which he seizes the world. His face is round, he sports wire-rim glasses, and there is a hint of Teddy Roosevelt in his countenance. The wrinkles over his left eye are raised in a fixed distortion, like a scar, so that it seems as if Edgerton is literally and constantly raising a quizzical eyebrow as he regards you. When he laughs, it is in a sudden and ebullient chuckle."

**New Insights into Structure and Function of Fe-S Proteins Through Studies on Aconitase\***—Prof Helmut Beinert, Institute for Enzyme Research, University of Wisconsin-Madison, T.Y. Shen Visiting Professor in Medicinal Chemistry, Dept of Chemistry Lecture, 4pm, Rm 4-270.

**The Westinghouse Advanced Pressurized Water Reactor\***—Dr. Ray George, manager, Westinghouse's Advanced PWR Project, Nuclear Engineering Dept Reactor Innovation Program Special Seminar, 3:30pm, Rm 24-121.

## Community Meetings

**Al-Anon\*\***—Meetings every Tues, noon-1pm, Rm 18-290; every Fri, noon-1pm, Health Education Conference Rm E23-297. The only requirement for membership is that there be a problem of alcoholism in a relative or friend. Call Ruth or Shirlee, x3-4911.

**Alcohol Support Group\*\***—Meetings every Wednesday, 7:30-9am, sponsored by MIT Social Work Service. For info call Ruth or Shirlee, x3-4911.

**MIT Faculty Club\*\***—The Club is open Mon-Fri. Luncheon hours: noon-2pm; dinner hours: 5:30-8pm. For dinner and private party reservations, call x3-4896 9am-5pm daily.

**Roommate Get-Together\***—Off-Campus Housing Service informal gatherings for students needing housing/roommates. Mon, Sept 10, 5-7pm, Student Center Mezzanine Lounge. Light refreshments served. For info, call x3-1493.

**Computer Professionals for Social Responsibility\***—monthly meeting, Sept 12, 7:30pm, Rm NE43-800. *The Ball's Eye War* film shown. For info, call Steve Berlin, x3-6018.

**Commodore VIC Users Group\*\***—meets monthly at noon time. For more info, call Gil, x8-3654 Draper.

**Comptrollers Accounting Candlepin Bowling League\*\***—gets underway Monday Sept 10, 5:30pm. Anyone interested in bowling a 32 week schedule, contact Jack Lavalle, x3-2772 or Debe Atwood, x3-2770.

**Parent Support Group\*\***—Medical Department sponsored meetings for parents with newborn to 2-yr old children. Sept 11, 25, Oct 9, 30, Nov 13, 27, Dec 11, 12-1pm, Rm E23-501. Expectant parents encouraged to attend. For more info, call Bette Livesey, x3-6320, Janette Hyde, x3-1744 or Medical Dept, x3-1316.

**MIT Wives' Group\*\***—First meeting of the Afternoon Group, Welcoming Newcomers: How to Get the Most From Your Time Here, Wed, Sept 19, 3-5pm, Student Center Rm 407. Babysitting provided in Rm 491. All women in the MIT community welcome.

**MIT Women's League Informal Needlework Group\*\***—Wednesday lunchtime gatherings, 9:30am-1:30pm, Killian Court or in case of rain, 3rd flr Women's Lounge next to Mary Pinson's office. Bring sack lunch, projects, swap ideas. Coffee and tea served. Meeting date: Sept 5.

## MIT Activities Committee

**MITAC, the MIT Activities Committee** offers discount movie tickets for General Cinema (\$2.50), Showcase and Sack Theaters (\$2.75). Tickets are good 7 days a week, any performance.

Tickets may be purchased at MITAC Office, Rm 20A-023 (x3-7990), 10am-3pm. Mon through Fri. Lincoln Lab employees may continue to purchase these discount passes from Malcolm Coley, Rm C-280, Mary Kowal, D-250, and Linda Wesley, C-447, Wed & Fri 1-3pm, only. Check out our table of discounts for camping, dining, musical and cultural events available to you through MITAC and MARES (Mass Assoc of Recreation and Employee Services).

## Theater

**Chicago-A Musical Vaudeville\***—MIT Musical Theatre Guild, Sept 8-9, 13-15, 8pm except 9/9 which is TBA, Kresge Little Theatre. Tickets, \$6/general; \$5/MIT staff; \$4/area students; \$3/students & seniors.

## Music

**MIT Concert & Festival Jazz Bands\*\***—Auditions, Sun, Sept 9, 5pm, Kresge Auditorium. Sight-reading and improvisation. For info, call Jay Elson, 494-8677.

**MIT Chamber Music Society\*\***—Auditions, Mon, Sept 10, 7pm, Rm 4-156. Sight-reading and prepared contrasting pieces. For info, call x3-2906.

**MIT Brass Ensemble\*\***—Auditions, Tues, Sept 11, 5pm, Kresge Rehearsal Room B. For info call Matt Lehman, x5-8838 dorm.

**MIT Symphony Orchestra\*\***—Auditions, Tues, Sept 11, 7:30pm, Kresge Auditorium. Openings in all sections. For info, call Karen, x3-2826 afternoons, T-F.

**MIT Concert Band\*\***—All welcome to join; first rehearsal, Wed, Sept 12, 8pm, Kresge Auditorium. For info, call Carl Manning, x5-8704 dorm.

**Noon Hour Chapel Concert\***—Marie Rhines, violin performs American fiddle and violin music, Thurs, Sept 13, 12noon, MIT Chapel.

**MIT Choral Society\*\***—Auditions, Sept 17, 20, 7:30pm, Rm 2-190. Handel's Messiah, in English. For info, call Erika Hartwig, 547-1599 after 6pm.

## Dance

**MIT Ballroom Dance Club\***—Workshop in Charleston/12th Street Rag, Sept 5, 7-8pm, Student Center Rm 407. Free; Workshop in '50s Rock 'n' Roll Swing/Ballroom Dance Exhibition, Sept 9, 6:30-9:30pm, Student Center Sala de Puerto Rico. Admission \$1/students & MIT affiliates; \$4/general public. No partner or experience required.

**MIT Folk Dance Club\***—weekly dancing - Sundays, International Dancing, 7:30pm, Student Center Sala de Puerto Rico; Tuesdays, Balkan and Western European Dancing, 7:30pm, Rm 407 Student Center; Wednesday, Israeli Dancing, 7:30pm Sala de Puerto Rico.

**Yoga\***—ongoing classes in traditional Hatha and Iyengar style. Beginners-7:20pm, Intermediates-5:45pm, Thursdays; all levels, 12:05pm. For information call Ei Turchinetz, 862-2613.

## Exhibits

### THE MIT MUSEUM

**Flowers As Images: Abstractions Through a Macrolens by Vernon M. Ingram.** Macrophotographs in color by Prof. Ingram, MIT, through October. **Etched in Sunlight: Samuel V. Chamberlain '18,** Lithographs, etchings and photographs, through November 16. **Weavings of Guatemala,** early 20th-century ceremonial and everyday clothing demonstrates technical skill and use of color dynamics, through February '20. Opening reception, September 5, 4-7pm. Hours: Weekdays, 9am-10pm M-F, Saturdays 10am-4pm starting Sept 8.

### Compton Gallery

**RING THE BANJAR! The Banjo in America from Folklore to Factory.** Robert Webb, curator. The musical, social and technological history will be shown by more than 50 instruments. Through September 29, 1984. Hours: Weekdays 9-5pm, Saturdays 10-4pm.

### Hart Nautical Gallery

**C. Allard: Artist to Dutch Merchants** 17th-Century etchings depicting the watercraft and marine activities of the time. Through January 23, 1985.

**Robert Fulton: Engineer and Artist,** Fulton's patent specifications of 1809 and 1810 for his steamboat. Twenty-one drawings and one self-portrait. Opening Reception, Sept 6, 4-7pm, Hart Nautical Galleries. Through April 30, 1985.

**Steam on the Water: Fulton and Other Inventors\***—John W. Waterhouse, curator, Remarks for Fulton exhibition openings, Sept 6, 6:15pm, Rm 5-233.

Ongoing exhibits: **MIT Seagrant**—A review of MIT ocean research; **Collection of Ship Models**—Half-models and drawings. Historical view of the design and construction of ships.

**Edgerton's Strobe Alley\***—Exhibits of high speed photography. Main corridor, 4th floor.

### Corridor Exhibits

**Corridor Exhibits:** Building 1 & 5, 2nd floor. **John Ripley Freeman Lobby,** Building 4; **Rogers Building,** Norbert Wiener, Karl Taylor Compton. **Community Service Fund, Ellen Swallow Richards.** Women at MIT. An overview of the admission of women at MIT. Five photographic panels with text documenting the circumstances that increased the number of women in the classroom since Ellen Swallow Richards. Building 6: **Laboratory for Physical Chemistry,** Building 8: **Solar Energy, Society of the Sigma XI,** Building 14N, across from Rm 14N-118. **Happy Birthday Mr. Killian,** 24 July 1904 photographic display in honor of the 80th birthday of the President Emeritus.

### OTHER EXHIBITS

**Institute Archives and Special Collections—Planning the New Technology, Part One: John Ripley Freeman.** The first of a three-part series about the relocation of "Technology" (MIT) from Copley Square to Cambridge highlights the plans of Freeman whose ideas on interconnected buildings were rejected as "too wide a departure from accepted methods." Hall exhibit case across from Rm 14N-118.

## Sports

**Home Events:** Sept 8: Baseball vs Merrimack (2 games), 12pm. Sept 8-9: Men's Sailing, Windsurfer Invitational, 9:30am. Sept 11: Golf vs Merrimack, Northeastern, 2pm.

## Wellesley Events

**Jewett Arts Center\***—The Permanent Collection, Sept 15-Jan 20; **Master Prints from the 16th-20th Centuries,** Sept 15-Oct 14; **French Art of the 19th Century,** Sept 15-Oct 14. Hours: M-Sat, 10am-5pm, Sun 2-5pm. Free.

**Wellesley Collegium Musicum\*\***—Auditions, Tues, Sept 11, 7pm. For info call the James Ladewig, Wellesley Music Office, 235-0320 x2077. Wellesley College Bus available.

**Bultmann's Personal Papers\***—Antje Bultmann Lemke, Bultmann Centenary Symposium, Sept 13, 7:30pm, Rm 277 Science Center.

**Bultmann and Philosophy\***—Hans Jonas, Bultmann Centenary Symposium, Sept 13, 8pm, Rm 277 Science Center.

**Bultmann in the History of New Testament Research\***—James M. Robinson, Bultmann Centenary Symposium, Sept 14, 12noon, Rm 277 Science Center.

**Louise Pettibone Smith\***—Paul Lehmann & others, Bultmann Centenary Symposium, Sept 14, 7:30pm, Rm 277 Science Center.

**Bultmann and the Future of Theology\***—Schubert Ogden, Bultmann Centenary Symposium, Sept 14, 8pm, Rm 277 Science Center.

**Bultmann and the Future of New Testament Research\***—Helmut Koester, Bultmann Centenary Symposium, Sept 15, 10:30am, Library Lecture Room.

**Hannah\***—play sponsored by Hillel, Sept 15, 8pm, Rehearsal Room.

\*Open to the public.  
\*\*Open to the MIT community only  
\*\*\*Open to members only

Send notices for Wednesday, September 12 through Sunday September 23 to Calendar Editor Rm 5-113, before noon, Friday September 7.

# THE INSTITUTE CALENDAR

September 5-17

## Special Interest

**R/O Week Blood Drive\***—Red Cross & Technology Community Association blood drive, Sept 6-7, Sala de Puerto Rico, Student Center, 11:30am-5:30pm. No appointment necessary.

**First Institute Workshop for Graduate Teaching Assistants**—Sponsored by Provost, Dean for Student Affairs, Dean of the Graduate School. Speakers include Dr. Francis E. Low, Provost; Prof Amar G. Bose, Dept of Electrical Engineering and Computer Science; Dr. John P. Terry, supervisor, Project STILE; Dean Holliday C. Heine, head, Undergraduate Academic Support Office; Drw Burns, G. Dept of Chemistry; Ian Webb, G. EECS; Prof Frank E. Perkins, associate provost and Dean of the Graduate School; and Dr. Jeffrey A. Meldman, senior lecturer in Management and Associate Dean for Student Affairs, Sat, Sept 15, 9am-3pm, Rm 10-250. Open to all graduate TA's; be sure to RSVP through your department's graduate office by Sept 11.

## Seminars and Lectures

Thursday, September 6

**Database Software on Micros\***—Joanne Costello, MIT staff, IPS review of some database management systems and some of the considerations to be made in choosing a package, 2-4pm, Rm 1-390.

Friday, September 7

**Fluid Flow Simulation by Finite Element Methods\*\***—Prof Roland Glowinski, University of Paris, Special Applied Mathematics Colloquium, 4pm, Rm 2-338. Refreshments served at 3:30pm, Rm 2-349.

**Survey of Electron Cyclotron Current Drive, Lower Hybrid Accessibility, and Plasma Frequency Emission\***—Dr. Lashmore-Davies, Culham Laboratory, Plasma Fusion Center Seminar, 4pm, Rm NW16-213. Refreshments served at 3:45pm.

Tuesday, September 11

**The Development of a Research Field: Iron-Sulfur Proteins\***—Prof Helmut Beinert, Institute for Enzyme Research, University of Wisconsin-Madison, T.Y. Shen Visiting Professor in Medicinal Chemistry, Dept of Chemistry Lecture, 4pm, Rm 4-270.

**Tensile Fracture of Cracked or Uncracked Non-Yielding Materials with Special Reference to Concrete\***—Prof Arne Hillerberg, University of Lund, Civil Engineering Seminar, 4pm, Rm 1-350.

# How to get there from MIT

*(Following is another in a series of essays written by MIT alumni about their careers and how MIT prepared them for what they are doing today. The essays were compiled by the Office of Career Services and Preprofessional Advising for publication in a 72-page booklet issued under the title above. Tech Talk will reprint the essays regularly on a space available basis. ©1983 by the Office of Career Services and Preprofessional Advising, MIT. (Les Aspin received the PhD degree in economics in 1965.)*

By LES ASPIN

Representative, First District, Wisconsin Congress of the United States

Our nation has never realized a greater need for competent, innovative leaders. The requirements of a government career are numerous, and include an ability to work well with many different personalities and understand countless public policy issues. However, the rewards can be singularly gratifying. It is one of the most fascinating, dynamic careers I can think of.

I received my PhD in economics from MIT in 1965 after studying at Yale and at Oxford. I also served as an economics advisor to Secretary of Defense Robert McNamara during the Kennedy Administration, as the campaign director for Senator William Proxmire's 1964 Senate campaign, and as an assistant professor of economics at Milwaukee's Marquette University. I ran for my first term in Congress in 1970. I have served since then as the Representative from the first congressional district of Wisconsin.

Currently, I am a member of the House of Representative Committees on the Budget and Armed Services. This year I was appointed chairman of the Armed Services Subcommittee on Military Personnel and Compensation, which oversees the system of military

Pay and allowances. During my career in Congress, I have specialized in defense and economic issues, and have made it my personal goal to see that all programs—domestic and defense-related—are carefully and intelligently scrutinized before being undertaken.

Frankly, I believe that there is no particular course of study required for a career in government. Modern government—for better or worse—is more involved than ever in every aspect of our lives, and people with many backgrounds and specialties are needed to meet the demands of our times. During your undergraduate years, I would encourage you to choose an academic field of concentration which will exercise your abilities to think and write analytically. At this time, you should also begin to follow national and local issues and develop an understanding of how our governmental system operates. To get a first hand view of the process, nothing beats a summer interning in a Congressional office, working for a public policy research organization, campaigning for a candidate you believe in, or becoming involved in your community.

Once you complete your formal education, the career paths you can choose are as varied as the types of government careers available. Many people get federal civil service jobs right after completion of their formal education; others venture to Capitol Hill in Washington to find their first jobs as members of Congressional staffs. Still others start by working in local politics, getting to know local issues. If you come to Washington, you will find that the exciting and demanding atmosphere means that public servants tend to move from job to job more often than people with other types of careers. A typical governmental career path might include a stint as a Congressional staffer, a job in a federal agency, and a position in one of Washington's numerous consulting firms which contract with the federal government.

All government careers however, require hard work, dedication, and the ability to understand and work with complex public policy issues. The key to success will not only lie in your ability to analyze large volumes of information, but also in understanding the process by which decisions are made within the institution where you are working. That

means learning the institution's goals and objectives, appreciating the ramifications of different policy options, and balancing the interests and opinions of the people who will be affected by the policy. You will find that the process can often be frustratingly slow—the red tape of bureaucracies and legislatures is not wholly a myth. And, decisions can be especially difficult with problems such as the formulation of economic policy, in which the short-term needs of many can easily conflict with long-term macroeconomic goals.

Despite the demands of public service, I remain more enthusiastic than ever about my career in government, and am particularly intrigued with the strides that Congress has made in its policy-making role. Given its special sensitivity to the mood and opinions of the public and its broad powers of legislation and oversight, it is structurally equipped to perform a unique and important function—and its potential has only begun to be realized. Many public figures and theorists are currently discussing reforms—such as attempting to decrease the power of special interest groups—which could further increase the accountability and flexibility of the institution.

In the years ahead, our leaders will face new challenges and old problems, ranging from preserving our nation's natural resources to insuring a healthy economy to preventing the possibility of nuclear war. That's a tall order—but I would heartily encourage you to take your political interests as far as they will lead you and consider a career in the public service.

## Witt, Sawin to give papers

Professor August F. Witt of the Department of Materials Science and Engineering and Professor Herbert H. Sawin of the Department of Chemical Engineering will present papers at SEMICON/East '84, the annual exposition of the Semiconductor Equipment and Materials Institute, which will be held in Boston, September 18-20.

Dr. Witt will discuss "Composition and Defect Control During LEC Growth of Gallium Arsenide." Dr. Sawin will present a paper on "The Kinetics of Polysilicon Etching in Chlorine-Bearing Discharges." Michael Moccia of DuPont is coauthor

## Two receive national fraternity awards

Two MIT June graduates have received prestigious awards from their national fraternities.

—John F. Piotti of Nantucket, Mass., was selected as the 1984 International Balfour Award winner, the Sigma Chi Fraternity's highest honor bestowed on an undergraduate member.

—Robert W. Schoenlein of Petaluma, Calif., was named the 1984 winner of the Thomas Arkle Clark Award, given annually by Alpha Tau Omega Fraternity.

Both awards are given to recognize scholarship, good character, fraternity service and campus activity.

Piotti, who was president of the MIT Sigma Chi Chapter, received the SB in political science/public policy. He is returning to MIT to pursue a second SB degree in ocean engineering and a master's degree in ocean systems management.

Schoenlein, who was nominated for his award by the Beta Gamma chapter of ATO at MIT, received the SB in electrical engineering and will study for a PhD. He served his chapter as president and received the ATO Foundation's top \$2,500 scholarship in 1983. He cocaptained the men's varsity swim team.

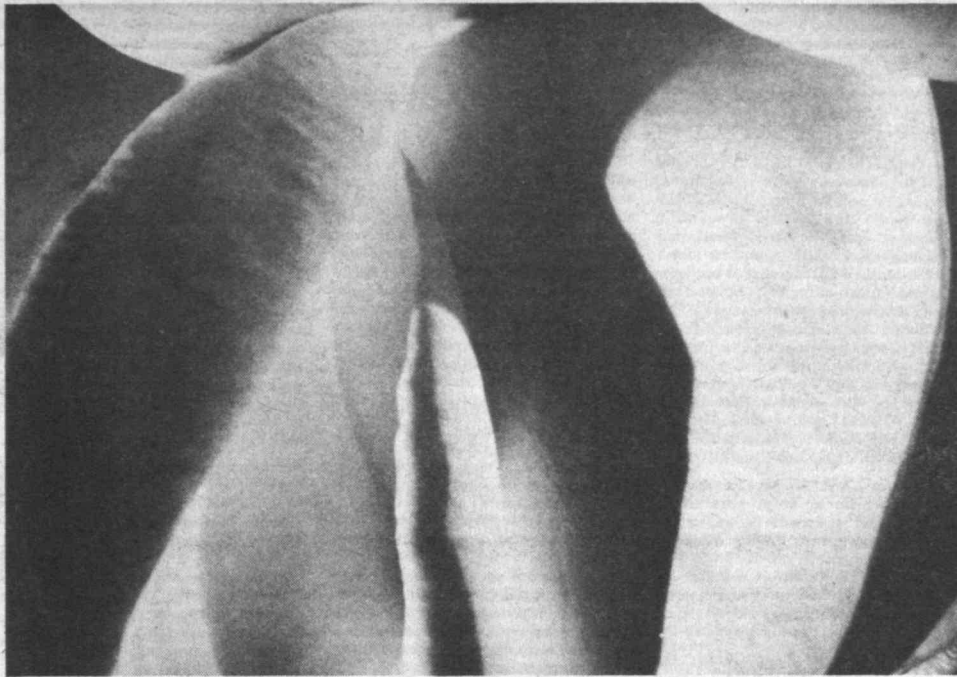
## Alphonse Wilson

A funeral was held August 31 for Alphonse Wilson, 71, of Dorchester, a retired technician at Lincoln Laboratory. Mr. Wilson died August 28. He worked at Lincoln from 1951 until his retirement in 1975.

He is survived by his widow, Kathleen Dilworth Wilson; two daughters, Karen Tahira and Robin Wilson, five sisters and three brothers.

## Alvarhino Santos

Word has been received of the August 1 death of Alvarhino Santos, a retired head custodian in Physical Plant. Mr. Santos worked at MIT from 1964 until his retirement last year. He was 66. His survivors include a sister, Rose Zajac of Medford.



Portrait from a rose, one of Professor Vernon Ingram's macrophotographs on exhibit at the MIT Museum.

## Museum shows Ingram flowers

An exhibition at the MIT Museum shows large color photographs so abstract they might suggest the topography of a strange planet or experiments in color and texture by a contemporary artist.

They are the macrophotographs of molecular and neurobiologist Vernon M. Ingram, MIT professor of biology. His exhibit, "Flowers As Images: Abstractions Through a Macrolens," will be on view through October at the Museum, 265 Massachusetts Avenue.

Encouraged by a book "which emphasized the maxim that an open and receptive mind is much more creative than even the most expensive camera," Professor Ingram bought a used Pentax Spotmatic camera four years ago and began taking photographs.

Because he is an enthusiastic gardener and also because he was attracted to their beauty and symmetry, Professor Ingram decided to concentrate on flowers. At first his photographs were literal representations in giant size, mostly of wild flowers here and in Greece.

Then, several months ago, he moved into the realm of abstraction. He uses the combined effects of a macro-lens, extension rings and a large print format to make each photograph about thirty times life size.

"As a result only a small part of the flower is shown and its shape and structure have become less important," Professor Ingram said. "Instead composition, lighting, form, textures and colors are paramount—as in an abstract painting."

Almost all his macrophotography is done at a sunny window in his Wayland home, sometimes using a shaving mirror to experiment with reflected back lighting. He found he had to work indoors to avoid the air currents found on even a still day. For every photograph selected for the present show, he made 30 to 40 exposures.

His photographs won a prize last year from the Boston Camera Club and he will have his first exhibition outside the Boston area next February, at the Chicago Botanical Gardens.

In talking about his new endeavor, Professor Ingram emphasized both the emotional satisfaction and the sense of discovery which leads him to continue. "I find there is a relatively emotional business involved. There is an

Ah-h-h-h."

He said, "I'm fascinated not only by the colors but by the textures, forms and relationships that make up each image. Even the slightest shift of the camera can change things radically."

"Because each picture is derived from a flower, there is always a point of origin to the composition, though not necessarily inside the frame. Interestingly, this is due ultimately to the way a flower grows—from a single cell or a small group of cells," he said.

The large flower paintings of Georgia O'Keefe have been an inspiration, he said. "As in her paintings, there is a strong sensual and also erotic element in many of the photographs in this collection."

Professor Ingram proudly talks about his daughter, Jennifer, whom he calls "a real artist." A student in one of the graduate programs of the Boston Museum School, she has spent this summer making drawings for an archaeological excavation in ancient Corinth. He said she has been "very supportive" of his explorations in macrophotography.

His photographs have now become available for sale. Information can be obtained by calling his extension, 3-3706 or by writing his office, Rm 16-631.

Professor Ingram came to MIT in 1958 from Cambridge, England where he had been doing research as a biochemist and molecular biologist. As he explained, "My teaching has been and continues to be in the areas of general and molecular biology. My research has been entirely with animals, humans, chickens, and rats, studying molecular aspects of their genetics and development. This molecular approach to biology has in recent years been balanced by my increasingly strong interest in flowers, the Z9 beauty and the abstract images to which they can give rise."

He has specialized in studying the chemical aspects of heredity. Among his achievements is the identification of the single genetic defect that produces sickle cell anemia.

He was awarded the William Allen Memorial Medal by the American Society on Human Genetics in 1967. He is a fellow of the Royal Society, elected in 1970.

## Alumni to meet in Toronto, Dallas

MIT's National Alumni Conference is going "on the road" again this fall—to two cities at opposite poles, Toronto, Canada, September 21-22, and Dallas, Texas, October 12-13.

The conference in Toronto will be the first meeting outside the continental United States in recognition of MIT's international character.

President Paul E. Gray will be the speaker at banquets in each city, and Mary Frances Wagley, first woman and 90th president of the Alumni Association, will report on the Alumni Association. Traditional awards ceremonies, including the naming of Bronze Beaver recipients, also will be held.

Faculty members and alumni will present Saturday afternoon programs of international economics in Toronto and on small business

## SG research stipends

The MIT Sea Grant Program will offer several \$750 stipends this fall for undergraduates doing research in any area related to the study and management of the ocean and ocean resources.

Proposals may be submitted from any academic department. Undergraduates from both MIT and Wellesley College are eligible. The awards are administered by the Undergraduate Research Opportunities Program and the proposal format is the same as the UROP format. Deadline for submitting proposals will be Wednesday, Oct. 10.

Thirteen Sea Grant awards were made to undergraduate researchers last year. This year the Sea Grant Program hopes to publish a compendium of student research reports.

enterprise in Dallas.

Dr. Ann F. Friedlaender, newly appointed Dean of the School of Humanities and Social Science and former head of the Department of Economics, will moderate the Toronto session. Panelists will be Paul R. Krugman, professor of economics; Olivier J. Blanchard, associate professor of economics; and James M. Poterba, assistant professor of economics.

Panelists for the Dallas program on venture capital/entrepreneurship will be David G. Jansson, director of the MIT Innovation Center; Allan S. Bufferd, MIT's associate treasurer and recording secretary; and Russell N. Cox, a consultant and investor who is the founder and current chairman of the MIT Enterprise Forum of Cambridge. The moderator will be William J. Hecht, executive vice president of the Alumni Association.

## 'Banjar' wins AAM award

The MIT Museum has won an Award of Distinction from the American Association of Museums for the invitation to its Compton Gallery (Rm 10-15) exhibition, "Ring The Banjar! The Banjo in America from Folklore to Factory."

The invitation unfolded to show an ornate five-string banjo, circa 1895, against a black background. It was one of 129 honored from a field of 2,000 entries to the 1984 Museum Publications Competition.

The banjo exhibition, which will be on view until September 29, also was praised in an editorial by commentator Frank Dolan on WEEI Radio.

## Horn recounts lofty vacation

MIT Professor Berthold K.P. Horn sent a note to Tech Talk about "some climbing" he did recently with a group organized by the Rainier Mountaineering Club.

This was no Sunday afternoon hike, however. Dr. Horn, an associate professor in the Department of Electrical Engineering and Computer Science, was one of 12 in the group (out of 14) who made it to the summit of Mt. McKinley, the highest mountain in North America. Mt. McKinley, also known as Denali, is in the Alaska range, about 200 miles north of Anchorage.

The daring dozen, led by Eric Simonson, reached the summit at 6pm on June 18. Professor Horn offered these comments:

We were flown in by Cliff Hudson, famous bush pilot, to the southeast fork of the Kathiltua glacier at about 6,900 feet. He had picked us up in Talkutua, a village 85 miles south of the mountain, on June 6. We set up eight camps on the way up, 17 miles. Plastic sleds were used to carry loads of over 100 pounds up the glacier; higher up, where sleds cannot be used because of the steepness of the terrain, we ferried loads between camps and caches.

Two days after the climb of South peak (20,320 feet), the group retreated at Denali pass from an attempt on the rarely climbed North peak (19,740 feet), because of high winds and apparently deteriorating weather. We then descended all the way to the Kathiltua glacier in less than 24 hours.

Mt. McKinley is a goal for many mountaineers throughout the world as indicated by the number of European and Japanese climbers we met. It was first climbed in 1914. Until 1951, however, it was rarely attempted because of the long approach up the Muldrow glacier. Bradford Washburn, now at the Museum of Science, then pioneered a new route using aerial photographs he took during a survey of the mountain.

A few years later, Barbara Washburn, his wife, was the first woman to stand on the summit. The route Dr. Washburn discovered, up the West Buttress, was the one we took. It involves little in the way of technical climbing and is relatively free of



Professor B.K.P. Horn reaches the 20,320-foot summit of Mt. McKinley.

objective dangers.

Of the six or seven thousand who have attempted to climb the mountain in the last 70 years, just under 50 per cent were successful. Many were turned back by fierce storms that can spring up at high altitudes on short notice. About five per cent were involved in various mishaps, such as frostbite, pulmonary edema, cerebral edema, hypothermia, snow blindness, falls into crevasses, or being covered by avalanches. For roughly 0.5 per cent, it was the last trip.

What makes Mt. McKinley tough is the combination of high altitude and cold. The barometric pressure on the summit is around 13.6", a level which is reached only at 23,000 to 24,000 feet in the Himalayas, because the air is warmer there. It's hard to think clearly at such altitudes, but the view on a good day on the top of North America is something one is not likely to forget, even at -20 degrees F!

## Two promoted in Athletics

Assistant Professors Walter A. Alessi and John A. Benedick of the Department of Athletics have been promoted to associate professor rank, effective July 1. Both came to MIT as instructors in 1975 and were appointed assistant professors in 1978.

Professor Alessi, a Boston native, is head coach of men's soccer and men's lacrosse. He



received the BS degree from the University of Massachusetts and MED degrees from Rhode Island College in secondary school administration and from Boston State College in physical education. Professor Alessi is a member of several NCAA Division III committees concerned with the sports he coaches and was the 1983 head coach for the East in the New England Intercollegiate Lacrosse Association All-Star Game. At MIT he also serves as assistant director of the Day Camp and children's skating instructor.

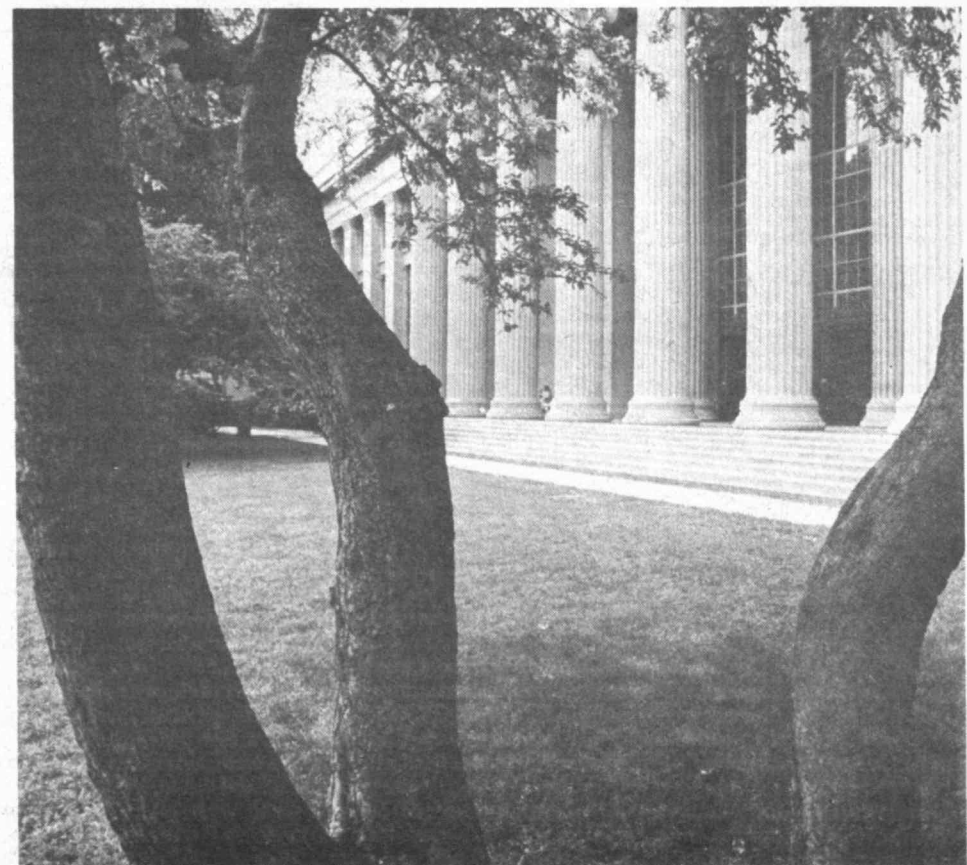
Professor Benedick is head coach of men's and women's swimming and water



polo. Born in California, he received the BS degree and teaching credential from California State University, Hayward, and the MA degree in sports sociology and motor learning from the University of California, Berkeley. He is a member of the NCAA Water Polo Rules Committee and secretary-treasurer of the New England Intercollegiate Water Polo Association.

He is also director of the NCAA-sponsored Volunteers for Youth Program at MIT, aquatics director for the Day Camp and community swimming instructor at the Institute.

Professor Benedick was selected as New England swimming coach-of-the-year in 1981. Since 1975 he has coached a total of 11 All-America's in men's and women's swimming and four in water polo. Under his direction, the MIT men's swimming team has finished in the top eight at the New England conference meet the past six years. In 1982 the team finished seventh at the NCAA Division III championships for its best showing ever.



Killian Court was quiet last week before the arrival of the freshmen on Friday.—Photo by Calvin Campbell





# Class of 1988 has 300+ women

(continued from page 1)

tical and verbal skills necessary for academic success at MIT.

This year's entering class includes representatives of all 50 states and the District of Columbia. Fifty-seven of the new students are foreign nationals.

The class was selected not only for high academic achievement in high school but also for individual interests and talents its members could bring to enrich the MIT community. Among them are:

—A unicyclist who square dances on his machine and another who juggles while riding hers.

—Many musical performers of accomplishment.

—An entrepreneur who owns both an electronics firm and a catering service.

—A first runner-up in a Junior Miss competition, a model and a television actor.

—A young woman who served as a translator for Russian immigrants when she was eight years old.

—Athletes ranging from an Olympic speed skater to champions in ping pong, judo, track, diving, horsemanship, sailing, bowling, tennis and karate.

The Class of '88 began arriving at MIT last week for a Residence/Orientation Program that began August 31 with the Freshman Picnic. During the 10-day period the freshmen are choosing their living arrangements in dormitories or fraternities; meeting with their faculty advisors to select courses; taking a diagnostic writing test and tests for advanced placement in a number of subjects; being introduced to the sports and extracurricular activities available, and attending a reception hosted by MIT President and Mrs. Paul E. Gray.

Registration for the fall term will be held Monday, Sept. 10.



Freshman Rachel Schleimer of New York City arrived on the campus carrying "Theo," her teddy bear in her backpack.

—Photo by Calvin Campbell

# Symposium focus: future of autos

(continued from page 1)

John F. Smith, president, General Motors of Canada.

Labor leaders who will participate include Irving Bluestone, retired vice president of the United Auto Workers Union, and Collin Gonze, director of the Auto and Aerospace Department of the International Metalworkers' Federation.

Seven nations—France, Italy, Japan, Sweden, the United Kingdom, the United States and West Germany—were involved in the study. Among them, the seven nations account for three-fourths of the world's motor-vehicle production and two-thirds of new-vehicle sales. In addition, they are the home countries of all the transnational automobile manufacturers.

The German Marshall Fund of the United States and the Lilly Endowment Fund provided support for the international coordination of the program. In addition, each national research team obtained funds from public and private organizations in its home country.

The co-directors of the Future of the Automobile study are Professor Daniel Roos and Professor Alan Altshuler. Professor Roos heads MIT's Center for Transportation Studies and is a faculty member in the Department of Civil Engineering. Professor Altshuler, now dean of the School of Public Administration at New York University, formerly headed the Department of Political Science at MIT.

The MIT Press will publish in September the final report in a book, *The Future of the Automobile* (\$16.95 plus \$1.50 for postage and handling).

Looking toward the end of the century, the symposium will focus on these key issues:

How many autos will be purchased? Where will market growth occur? Will there be chronic excess capacity in the world industry?

Is automotive technology adequate to deal with future energy, environmental and safety challenges?

How does technology evolve in the auto industry? Will the future be characterized by evolutionary or radical advances in product and production technology? What role will technology play in competition among final assemblers and among suppliers?

How will society cope with probable reductions in the size of the auto industry work force? What path will labor-management rela-

tions take in an era of intensifying international competition and rapid technological change?

How will relations between the members of the auto production system—final assemblers, suppliers, financing sources—evolve? What new forms of collaboration and cooperation will develop among final assemblers and among suppliers?

Symposium sessions will be held in Kresge Auditorium. The program begins at 9am Tuesday, Sept. 18, with a welcome to attendees by MIT President Paul E. Gray.

Sessions on September 18 will deal with the key issues facing the auto and the auto industry; the future shape of the world auto industry; the future of automotive employment and labor relations; the future of automotive technology, and (running simultaneously with the previous session) future trends in auto demand and use.

Sessions on Wednesday, Sept. 19, include the future of trade relations, public and private choices for the future, and the future of the North American auto industry.

## Pinker wins APA award

Dr. Steven Pinker, assistant professor of psychology at MIT, has been given the Distinguished Scientific Award for an Early Career Contribution to Psychology by the American Psychological Association. Dr. Pinker received the award in August at the annual APA Convention in Toronto, Canada.

Dr. Pinker received his BA at McGill University in 1976 and PhD from Harvard in 1979. He has served on the faculty at Stanford University and Harvard University, and began teaching at MIT in 1982. He has written numerous articles in scientific journals on cognitive science, visual cognition, and psycholinguistics, and has served as Guest Editor for a special issue of *Cognition*. Dr. Pinker is the author of *Language Learnability and Language Development*, published by Harvard University Press and is co-author of *Graphs for People and Computers*, to be published by Holt, Rinehart, and Winston.

Dr. Pinker is a member of the Advisory Editorial Board at the MIT Press and is the research director for experimental laboratory facilities at the Center for Cognitive Science.

# MIT issues policy statement on sexually explicit films

(continued from page 1)

statement was developed because of "continuous and sustained complaints" about the showing of sexually explicit or pornographic films by the Lecture Series Committee. She said complaints have come from many segments of the community, including students, faculty, staff, committees, senior administrators and visiting faculty. In addition, individuals and groups have staged protests against the showing of such films on campus and have organized boycotts, she noted.

Dean McBay said the statement was "an effort to handle a difficult and sensitive issue in a manner that takes into consideration both the freedom of academic expression and the sensibilities of the community."

The policy statement, which was developed over the summer by Dean McBay's office in consultation with faculty, staff members and students, says the decision against an outright ban of sexually explicit films was made because the Institute "wished to protect the expression of ideas even when these ideas might be unpopular and offensive."

At the same time, the statement says, MIT has the right to "make decisions regarding the time, circumstances and location of the showing of such films without compromising the protection of expression."

To accomplish this, the statement says, Dean McBay will appoint a committee of about 12 persons to develop or adopt criteria for sexually explicit films that may be shown on campus. The committee also will review X-rated or unrated sexually explicit films, prior to public showing, to determine whether the films meet the criteria established by the committee.

If the committee finds that a film meets the established criteria, then it may be shown on campus on the same basis as any other film, the statement says.

Dean McBay said the policy statement is effective beginning with the 1984-85 academic year, and that she hopes to have the screening committee in place by the end of September. She said the committee will include Lecture Series Committee and non-LSC student members, as well as faculty and staff members.

The policy, she added, will be reviewed after a trial period of not less than a year.

"On the grounds of academic freedom," Dean McBay said, "MIT has steadfastly refused to forbid the use of Institute space for such showings even though repeated attempts by students, faculty and administrators to persuade the LSC to voluntarily end the showing of pornographic films have been unsuccessful."

"Our office has solicited and relied heavily upon the advice of faculty, staff and students in the formulation of the policy statement. We have taken into consideration the views of members of the executive committee of the Lecture Series Committee and were pleased to learn in our discussions with them that LSC

itself had planned to take many of the steps outlined in the statement. In addition, the statement has received the endorsement of the Academic Council."

While LSC representatives initially raised objections to the establishment of the screening committee, she said, these objections appeared later to be resolved.

Their strongest objection, not satisfactorily resolved, she said, was to the denial of the use of Kresge Auditorium for the showing of films not meeting established criteria.

Their arguments, she said, included a potential loss of income, the need for additional late showings if a smaller room had to be used and an increased likelihood of unpleasant incidents if people had to be turned away.

In denying the use of Kresge for unapproved films, the policy statement notes that "several unpleasant incidents" have occurred following past showings of sexually explicit films. It also comments that the auditorium is close to McCormick and Green Halls, the women's dormitories on campus. "In order to avoid possible disruptions and unpleasant encounters for students, especially women students, as they move within their normal environment, Kresge will no longer be used for such films," the policy statement says.

Films not meeting the criteria of the screening committee cannot be shown during or at the end of freshman orientation, the statement says, because they are "not an appropriate introduction to this community for incoming students." Showing them on the registration of either term, it adds, "serves to establish an undesirable tradition of such showings."

On the matter of giving sufficient prior notice for the showing of unapproved films, the statement says that groups must notify the dean's office of their intent "at least six weeks prior to the proposed showing date."

In establishing criteria that sexually explicit films should meet for approved showing, the screening committee may adopt criteria similar to that recommended by an earlier ad hoc committee in April, 1983.

That group, convened by the LSC and the dean's office, was known as the Repeta Committee for its chairman, Mike Repeta, a member of the LSC.

Its four criteria were these:

1. Films should reflect believable reality or more normalcy in the relationships and sexuality displayed.
2. The sexuality portrayed should not be objectified as being separate from the individuals involved.
3. The sexually explicit content and the emotional content should strive to equally reflect the viewpoint and the sexual feelings of both men and women.
4. The films should generally promote a positive attitude toward sexuality.

# Mall approach may benefit cities generally, researchers report

(continued from page 1)

an assistant professor in MIT's Department of Urban Studies and Planning.

Professors Frieden and Sagalyn note that more than 100 downtown retail centers have been developed since 1970, indicating that a growing number of cities are finding ways to compete effectively against the suburbs for a share of retail sales.

The downtown centers follow several different retailing strategies, they said. "Some, such as Plaza Pasadena, are regional shopping malls offering a wide variety of goods aimed at the middle of the market. Others, such as Boston's Faneuil Hall Marketplace, are specialty malls that draw people by offering foods and festive atmosphere. Still others, such as Town Square in St. Paul, are mixed-use projects combining stores with hotels, offices, convention centers or other activities."

As in urban renewal, public sector money has been an important ingredient in the downtown retail projects, according to the researchers.

In a sample of 32 projects, they found, the public share ranged from as little as three per cent to as much as 81 per cent, with a median of 30 per cent. While federal grants supplied most of the public funds in the earlier projects, the survey showed, local financing either complemented or substituted for federal sources in more recent ones.

A question for the future, they say, is whether the new public-private relationship that produced the centers was simply "a temporary expedient brought on by the special circumstances of the 1970s, or part of a learning process likely to continue in the future."

Their research suggests, they write, that city officials and developers who have made use of the new public-private management style "are unlikely to give it up without compelling reasons, such as the emergence of scandals from these relationships."

"City staff members who have had personal experience with public-private developments are still a very small minority of their profession," the researchers comment, "and the details of the process are still not well known."

Yet there is widespread interest in the entrepreneurial style of public administration, and by now similar methods have been applied to a number of other developments besides the downtown retail centers."

According to Professors Frieden and Sagalyn, the public-private process for downtown retail projects has four key elements that are broadly applicable to other settings:

—Assembling a mix of local and private resources to complement available federal funds.

—Establishing political and economic feasibility during early stages of project planning.

—Utilizing ongoing negotiation rather than an arm's length regulation of the private sector, with a continuing role for the city in decisions throughout the development process.

—Trading public sector sharing of front-end risks for participation in future benefits.

Downtown retailing has been a good proving ground for these strategies, and many cities are likely to turn their attention next to other types of projects in other parts of the community, say the researchers.

Some of the same methods, they say, may prove applicable to small commercial centers, recreation facilities and housing renovation, for example, all of which are necessary to restore and rebuild residential neighborhoods.

They conclude, "If public-private developments continue to spread as they have in the past few years, and if the cities can make their new managerial methods work for a broader development agenda, then the process that built the downtown shopping malls could turn out to be even more important than the malls themselves."

B84-005, Sr. Secretary (pt), Aeronautics and Astronautics  
 B84-055, Secretary, Nutrition & Food Science  
 B84-047, Secretary, Nutrition & Food Science  
 B84-042, Secretary, Resource Development  
 B84-013, Secretary, Nutrition & Food Science  
 B84-975, Administrative Secretary, Industrial Liaison Program  
 B84-995, Sr. Secretary, Physical Plant  
 B84-969, Administrative Secretary, Economics  
 B84-915, Sr. Secretary, Provost's Office  
 B84-836, Sr. Secretary Mathematics  
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