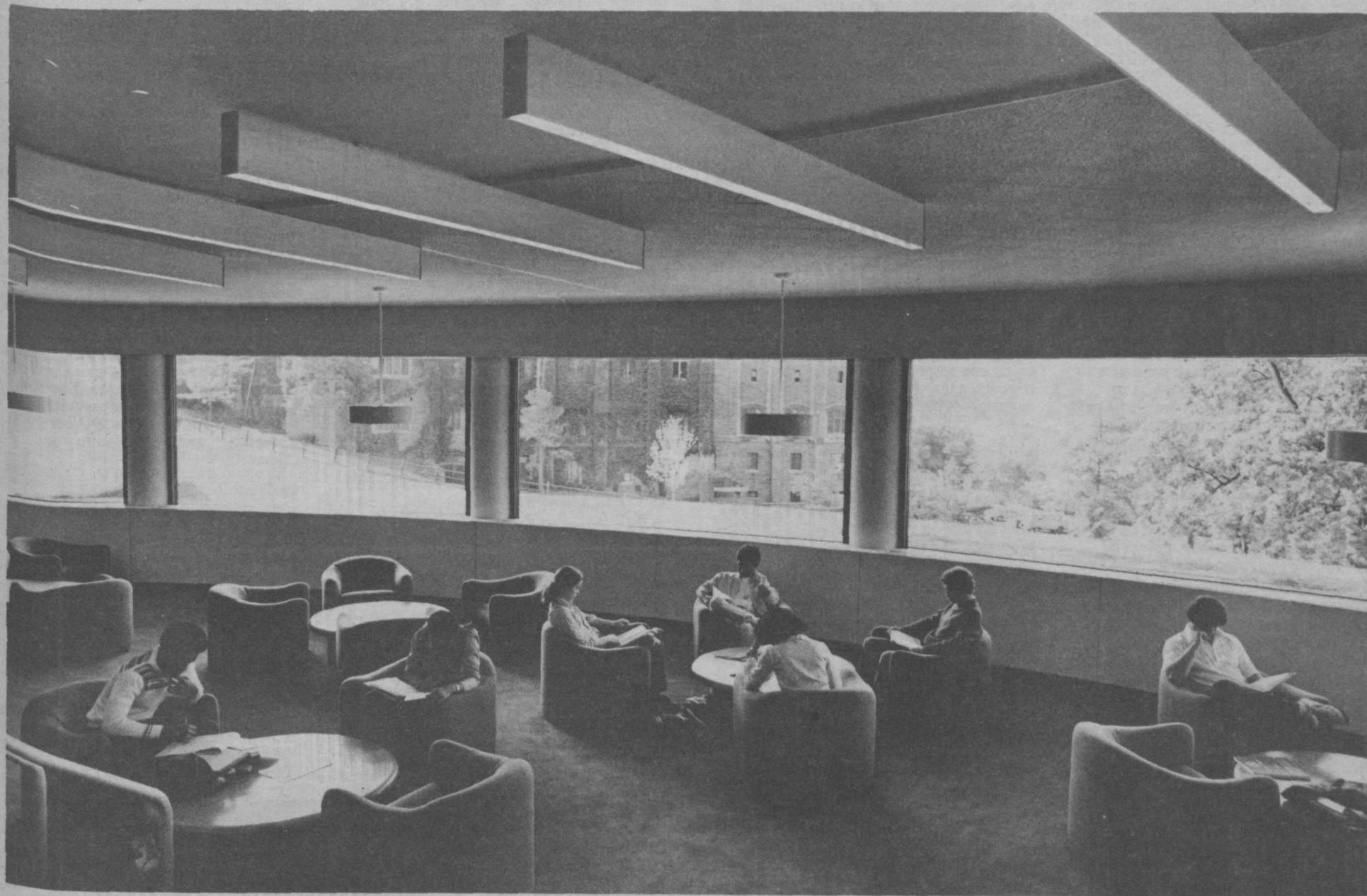


# Cornell Chronicle

Volume 14, Number 5

Thursday, September 23, 1982



The new underground reading room addition to Uris Library features sweeping use of space and light.

## New Underground Reading Room Dedicated

### *Addition to Uris Library Designed by Gunnar Birkerts*

The underground reading-room addition to Cornell University's Uris Undergraduate Library was opened for student use yesterday.

A dedication ceremony in the just completed addition took place Tuesday with members of the Harold Uris family, friends and other representatives of the Cornell and Ithaca communities.

The addition was undertaken with a \$3 million commitment from the late Harold D. Uris '25 through the Uris Brothers Foundation. Uris, a presidential councillor and University trustee, died March 28, 1982, at the age of 76.

The dedication speakers were Cornell President Frank Rhodes, M.H. Abrams, Class of 1916 Professor of English at Cornell and Robert M. Matyas, Cornell's vice president for facilities and Business Operations. Presiding was Louis E. Martin, the Louis Carl A. Kroch Librarian at Cornell and head of the University Libraries. (A full report will be in next week's issue of the Chronicle.)

The second major alteration in 20

years for the 91-year-old structure (both funded by Uris), the addition is expected to attract attention from the nation's architectural community. It was designed by Gunnar Birkerts, one of the country's leading contemporary architects.

The underground addition presented Birkerts another occasion to express as one critic has stated, "his bent for husbanding and celebrating precious daylight. What greater challenge can offer itself to such an abiding love than the design for a building deep underground."

Among Birkerts' latest designs are the Corning Museum of Glass in nearby Corning and a library for the University of Michigan's Law School, which is bathed in daylight five levels below the ground.

The new addition alleviates the library's critical need for undergraduate reading space. The new room — built on the southwest side of the library — provides seating for 214 readers. It

More photographs of the new reading room may be found on Page 7.

offers views through a sixty-foot wide panel of windows that faces the library slope and west campus. A clerestory facing the foundation of Uris Library also provides back-lighting for the addition.

The room has two levels that contain lounge chairs and oak tables supplemented by lighted four-person reading tables and single-person study carrels. Three private rooms are available for group study and meetings. The entire area is ramped for wheel-chair use.

Students and visitors can enter the room from the main library through the graceful, glass-enclosed circular staircase that provides another outstanding view of the valley below.

An auxiliary entrance on the south side of the addition facing Willard

Straight Hall will serve as an emergency exit and possibly as an entrance if it is determined the reading area can serve effectively as a late-night study room isolated from the library proper after closing hours.

A stone terrace overlook on the addition's roof, a pedestrian way on what was part of Central Avenue, and landscaping complete the outdoor portion of the project, a key aspect of the University's campus-wide beautification program.

Concurrent with construction of the underground addition have been substantial renovations to Uris Library itself. Designed by the local architectural firm O'Brien and Taube, the renovations emphasize the original architectural concept of Uris library with its cathedral-like open spaces.

Restoration of a stained-glass skylight in the vaulted ceiling of the main reading room is part of the project. The work

Continued on Page 7

## Potpourri

# Ornithology Lab Plans Two-Day Open House

Visitors will have a rare opportunity for an inside look at the birds, the science and the scientists of the foremost facility of its kind in the world, the Laboratory of Ornithology at Cornell, during a two-day open house Saturday and Sunday, Oct. 2 and 3.

In addition to the tours, demonstrations and exhibits, artist and author Roger Tory Peterson will be on hand Saturday afternoon to meet visitors and autograph copies of his popular Peterson Field Guide series.

The open house, scheduled from noon to 5 p.m. Saturday and from 7 a.m. to 5 p.m. Sunday, rain or shine, will include presentations of interest to visitors of all ages and levels of involvement in "birding."

The Laboratory of Ornithology is located off-campus at 159 Sapsucker Woods Road, between New York State Route 13 and Hanshaw Road, near the Tompkins County Airport.

Saturday's scheduled events include a bird banding demonstration from 1 to 2 p.m.; care of sick or injured birds, 2:30 to 3:30 p.m.; and an autograph session with Roger Tory Peterson, 1:30 to 3:30 p.m.

Peterson, the recipient of the first Arthur A. Allen Award from the Laboratory of Ornithology, will present the 14th annual medal to sound recordist William W. H. Gunn at a banquet scheduled for 6 p.m. Saturday at the Sheraton Inn. Gunn, who will be cited for his contribution to popular ornithology, is best known for his role in the production of television and radio programs for the Canadian Broadcasting Cor-

poration and for his series of bird sound recordings.

The Cornell Laboratory of Ornithology established the award in 1966 in memory of Arthur A. Allen, the eminent ornithologist, co-founder of the Laboratory, and teacher at Cornell for nearly 50 years. A limited number of tickets to the awards banquet are available.

Sunday's scheduled events include a Sapsucker Woods walk from 7 to 9 a.m.; a bird banding demonstration, 10 to 11 a.m.; an illustrated lecture on orientation and navigation in homing pigeons, 9:30 to 10:30 a.m.; a bird feeding workshop, 11:30 a.m. to 12:30 p.m.; a presentation on the Peregrine Falcon Project, 1:30 to 2:30 p.m.; and an illustrated lecture on studies of the great blue heron in New York State and the Cooperative Research Program.

Among the specialized facilities open to the public all day Sunday will be the Library of Natural Sounds, repository for taped vocalizations of more than 40,000 avian and other animal species and the center for the study of the evolution and development of avian communications systems.

The Laboratory of Ornithology is a membership-based unit of Cornell University, dedicated to the accumulation and dissemination of new knowledge on all aspects of bird life the world over. More information on the Laboratory of Ornithology, is available by writing the Laboratory at 159 Sapsucker Woods Rd., Ithaca, N.Y. 14850 or by calling (607) 256-5056.

since Oct 1, 1980 should register for the GREs to be administered on Dec 11, 1982. GRE registration forms for this test date, for NSF Fellowship applicants only, must be received at the Educational Testing

Service by Dec. 2, 1982.

Questions concerning NSF Fellowship programs may be directed to the Fellowship Office, 256-4884.

## Antonioni Lectures Saturday

Italian film director Michelangelo Antonioni, will give a public talk on his latest film, "Identification of a Woman," at 8 p.m. Saturday, Sept. 25, in Uris Hall Auditorium.

His talk will be followed by the first showing in this country of his film "Profession: Reporter," the uncut version of his work, "The Passenger."

Because of limited seating (428), admission will be by ticket. Although they are free the tickets must be picked up at the Willard Straight ticket office this week.

Antonioni will be on campus beginning Sept. 25 for a week in his capacity as an Andrew D. White Professor-at-Large.

Elected to a six-year term last year, he will be making his first visit to campus.

He will meet informally with students and faculty and take part in a number of seminars during his stay. Those wishing to speak with him should make arrangements

through Elizabeth Marquees, senior administrative secretary of the Professors-at-Large Program, 514 Clark Hall, telephone 256-4845.

In conjunction with his talk, there will be an all-day public symposium on the last 20 years of his work starting at 9 a.m. on Saturday, Sept. 25, in Kaufmann Auditorium of Goldwin Smith Hall.

Morning speakers will be Ted Perry of Middlebury College, who will speak on "The Eclipse"; "Ned Rifkin, of the New Museum in New York, on "The Red Desert"; and William Arrowsmith, of Emory University on "Blow-up."

In the afternoon, three speakers from Cornell, Giuseppe Mazzotta, Kimball Lockhart and David I. Grossvogel, will talk respectively on "Zabriskie Point," "The Passenger" and "The Mystery of Oberwald."

## 'Korea Week' Scheduled

A "Korea Week" marking the 100th anniversary of the establishment of diplomatic relations between Korea and the United States will take place here starting Sept. 28.

Sponsored by the Korean Students Association at Cornell, the activities will include music, dance, dinners, handicraft bazaar and public seminar.

The seminar on the "Centennial of Diplomatic Relations between the U.S. and Korea" will be at 2 p.m. Tuesday, Sept. 28, in Hollis E. Cornell Auditorium of Goldwin Smith Hall with admission free. Seminar speakers, include Sae-Jim Kim, Korean consul general in New York, and Steven Jackson, an instructor in Cornell's government department.

Other events to take place are:  
—Korean culture night featuring traditional Korean music and dance performances, and demonstrations of Tai-Kwon-do, the Korean art of self-defense, 8 p.m. Friday, Oct. 1, Statler Auditorium.

Tickets for this program (\$2.50 per person) may be purchased at the Ticket Office in Willard Straight Hall or at the door.

—Display of Korean home furnishings and costumes, and Korean handicraft bazaar, from 2 p.m. to 6 p.m. Saturday, Oct. 2 and 10 a.m. to 3 p.m. Sunday, Oct. 3, Memorial Room of Willard Straight Hall.

—Korean dinner featuring traditional dishes, prepared and served by wives of Korean students, 7 p.m., Saturday, Oct. 2, One World Room in Anabel Taylor Hall. Tickets for the dinner (\$8.50 per person) are available from the Willard Straight Hall Ticket Office, or call 256-6277 or 257-1620. The number of dinner tickets being sold is limited.

The "week" is taking place with the support of Cornell's China-Japan Program, the Office of Vice President for Campus Affairs, the Korean Consulate in New York City, the Korea Times, and Corning International Co.

## NSF Grad Fellowships Available

The National Research Council has announced that funding will be available for the 1983 National Science Foundation Graduate Fellowship competition and the 1983 National Science Foundation Minority Graduate Fellowship competition. Applications are available at the Fellowship Office, 116 Sage Graduate Center. Applications may also be obtained by writing to the Fellowship Office, National Research Council, 2101 Constitution Ave., Washington, DC 20418. The application deadline for both programs is Nov. 24, 1982.

NSF Graduate Fellowships are awarded for study leading to master's or doctoral degrees in the mathematical, physical, biological, engineering and social sciences, and in the history and philosophy of science. The fellowships, which are awarded for a period of three years, provide an annual stipend of \$6900 plus a \$4000 cost-of-education allowance, which is paid to the

fellow's institution in lieu of all tuition costs and assessed fees.

NSF Graduate Fellowships are limited to individuals who are citizens or nationals of the United States at the time of application. In addition, applicants may not have completed more than 20 semester /30 quarter hours, or the equivalent, of study in any of the science or engineering fields listed above following completion of the first baccalaureate degree in science or engineering. Applicants for NSF Minority Graduate Fellowships must meet the above criteria and must be members of an ethnic minority group underrepresented in the advanced levels of the US science and engineering personnel pool; American Indian, Black, Mexican American/Chicano, Puerto Rican, Native Alaskan (Eskimo or Aleut), or Native Pacific Islander (Polynesian or Micronesian).

Prospective applicants to both NSF Fellowship programs who have not taken the Graduate Record Examinations (GREs)

## Cornell Chronicle

Editor, Randall E. Shew. Staff writers, H. Roger Segelken, Robert W. Smith, Barbara Jordan-Smith, Martin B. Stiles, Photographer, Sol Goldberg, Circulation Manager, Joanne Hanavan. (USPS 456-650)

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It is the policy of Cornell University actively to support equality of educational and employment opportunity. No person shall be denied admission to any educational program or activity or be denied employment on the basis of any legally prohibited discrimination involving, but not limited to, such factors as race, color, creed, religion, national or ethnic origin, sex, age or handicap. The university is committed to the maintenance of affirmative action programs which will assure the continuation of such equality of opportunity.

## Jobs

The following job openings are new this week. For information on vacant positions listed in previous issues of the Chronicle, contact Personnel Staffing Services, 130 Day Hall. Cornell is an affirmative action employer.

**Administrative/Professional**  
Research Support Specialist III (Applied & Engineering Physics)  
Travel Manager (General Services)  
Administrative Manager I (Office of the Assemblies)  
Staff Assistant I (Dean's Office, Arts & Sciences)

**Clerical**  
Binding Assistant, GR16 (Univ. Lib.—Serials (Olin))  
Office Assistant, GR16 (University Health Services)  
Secretary, GR18 (Chemical Engineering)  
Secretary, GR18 (HD&FS)  
Senior Records Assistant, GR18 (University Libraries/Catalog)  
Secretary, GR17 (Cooperative Extension Administration)  
Secretary, GR17 (Psychology)  
Secretary/Receptionist, GR17 (Human Ecology)

**General Services**  
Material Handler, SO18 (University Press)

**Service & Maintenance**  
Nurses Aide, SO17 (University Health Services)  
Dish Machine Operator, SO17 (Statler Inn)  
Custodian, SO16 (Varied)  
Maintenance Technician (Boyce Thompson Institute. Contact D.C. Torgeson directly at 257-2030)

**Technical**  
Technician, GR23 (Pomology & Viticulture) (Geneva)

**Part-time**  
Research Aide, GR18 (Government)  
Secretary, GR16 (HD&FS)

**Academic**  
Elizabeth Newman Wilds Director of Cornell Plantations

Assistant Professor (personality/social psychology, experimental psychopathology, or applied social psychology) (Psychology, College of Arts & Sciences)

The Job Opportunities list is mailed to all Cornell departments. In addition, it is posted in the following places: Day Hall Information Desk, second floor lobby; at the Circulation and Reference Desks of all university libraries; in the Mail and Newspaper Section, Olin Library; all college and technical libraries; Roberts Hall Post Office substation and in the Upper Activities corridor, Willard Straight Hall.



CLIFTON C. GARVIN JR.

## Exxon CEO to Be Hatfield Fellow

### Garvin to Deliver Address Oct. 14

Clifton C. Garvin Jr., chairman of the board and chief executive officer of the Exxon Corp., will deliver a major public address on Thursday, Oct. 14, as the university's third Hatfield Fellow.

Garvin will spend the day in several Cornell classes and seminars before delivering his talk at 4:45 p.m. in the auditorium of Uris Hall.

The Hatfield Fellows program honors Robert S. Hatfield, a Cornell alumnus and a member of the Board of Trustees who recently retired as chairman and chief executive officer of The Continental Group, Inc.

Garvin has been at the helm of Exxon, the world's largest industrial corporation, since 1975. He began his career with the firm in 1947 as a process engineer at the company's Baton Rouge, La., refinery.

He was refinery operating superintendent when he was elected vice president of the U.S. operating division, Exxon

Company, U.S.A., in 1963. A year later he became executive assistant to the president.

In 1968, Garvin was appointed executive vice president of Exxon Corp. and elected to its board of directors, where he served on the executive committee. He was named president of Exxon in 1972.

Garvin is chairman of the American Petroleum Institute. He has served for 10 years with the National United Way of America and is currently vice chairman of its board of governors. He is also vice chairman of the Sloan-Kettering Institute for Cancer Research and the Board of Trust of Vanderbilt University.

He is a director of Citicorp, Pepsico, Inc., Sperry Corp., and the Council for Financial Aid to Education, Inc.

In November 1981, Garvin was appointed to President Reagan's National Productivity Advisory Committee and recently to the President's Private Sector Survey on

Cost Control.

The Hatfield Fellowships are one of two major programs supported by a \$500,000 endowment Cornell received in 1980 from the Continental Group Foundation to honor Hatfield, now president and chief executive officer of the Society of the New York Hospital.

The fellowships, intended to enhance communication between the campus community and leading corporations, annually bring a distinguished national business leader to Cornell to deliver a major address and to meet informally with students and faculty. Hatfield was the first participant in April 1981. Roger B. Smith, chief executive officer of General Motors, was here the following year.

The endowment also provides support for Cornell faculty members who propose innovative ways to strengthen the teaching of applied economics.

## CHES: Much More than Knights and Bishops

BY ROGER SEGELKEN

What was once regarded as a wasteful nuisance, the x-radiation from circulating beams of electrons in a huge synchrotron, has been harnessed to serve physicists, molecular biologists, chemists, materials scientists, crystallographers, medical researchers and others as they probe organic and inorganic molecules to learn more about the arrangement and activities of atoms.

From the retina of the human eye to the white-hot center of the earth, from the microscopically thin layers of silicon in an integrated circuit to the complex crystals in a synthetic fuel plant's catalysts, molecules and atoms are yielding their secrets to the x-rays of CHES, the Cornell High Energy Synchrotron Source.

Like the headlight of a locomotive sweeping around a curve, needle-sized bunches of electrons (accelerating, together with counterrotating bunches of positrons, some 400,000 times a second through the half-mile-long CESR, the Cornell Electron Storage Ring) produce a narrow beam of photons in the x-ray region of the spectrum.

To high-energy physicists using the electron storage ring for their studies of subatomic particles, this synchrotron radiation is a nuisance, an unavoidable by-product that results in a substantial waste of electrical power required to run the underground facility. But to a growing number of researchers from a variety of fields, the synchrotron radiation is a blessing whose disguise has been penetrated only in recent years.

Operators of CHES allow the x-rays to escape through beryllium windows located at three sharp bends in the electron storage ring. The beam through each of these windows is supplied to as many as three

experimental stations.

Three characteristics make the x-rays at CHES a particularly valuable tool for researchers — timing, intensity, and tuneability:

—The bursts of x-radiation from the passing bunches of electrons arrive at CHES every 2.5 microseconds, and last 0.13 nanoseconds. The effect can be compared to a strobelight which produces flashes about one-tenth of a billionth of a second in duration with a relatively long period of time — 2.5 millionths of a second — between each flash.

Although 2.5 microseconds may seem like an awfully brief interval, it is ample time for certain experiments that can be performed no other way. Some timing experiments, for example, call for very short laser pulses to heat a specimen, alternating with pulses of x-rays. By analyzing the results of the x-rays, researchers are able to get an instantaneous reading on changes induced by the laser pulses in the material on a timescale of hundredths of nanoseconds;

—The synchrotron radiation available at CHES has a wavelength from 4 Angstroms to 0.1 Angstrom, some 10,000 times more intense than that obtainable from the best x-ray tube. (In one demonstration, the x-ray beam at CHES burned through and shattered a six-inch-thick block of glass.) In addition, the synchrotron radiation emitted at CHES is extremely bright in the optical sense with a great number of photons striking even the smallest specimen.

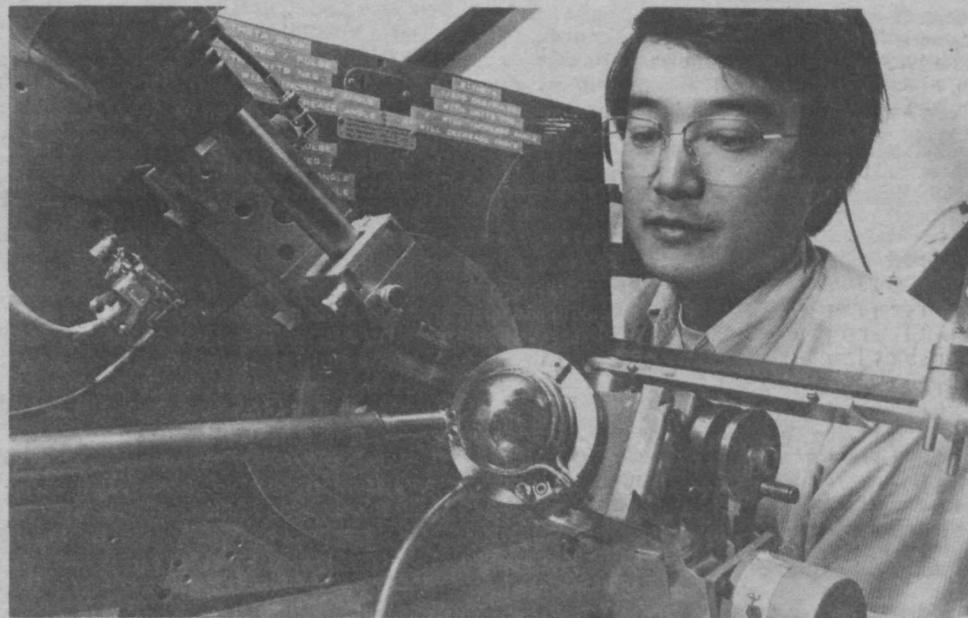
The high energy level at which CESR is operated results in a narrow cone angle of x-radiation; the beam available at CHES has an angular width of about 20 seconds of arc. Comparing the brightness of the syn-

chrotron radiation to that of a conventional x-ray tube is like comparing a laser to a conventional light.

Just as in photography with visible light, a brighter, more intense source of x-rays makes possible a shorter exposure. Long exposure to x-rays damages biological specimens and destroys crystals. Not only does the shorter exposure to synchrotron radiation lessen the likelihood of damage, but researchers are able to collect more

data in a given amount of time. Pictures of protein crystals which once took days to complete can now be taken in a matter of minutes;

—By adjusting the monochromators through which the synchrotron radiation passes, CHES operators are able to tune the x-rays, to select from full spectrum of x-ray light the particular wavelength they need. No conventional source of x-rays offers this capability.



—Photo by Jon Reis

A materials scientist from Northwestern University prepares a CHES experiment to determine the arrangement of copper atoms in alloys.

## A National Facility, CHES Used by Scientists from All Over

As a university-based national facility, the Cornell High Energy Synchrotron Source is available to researchers from university, government and industrial laboratories throughout the U.S.

Proposals to use CHES pass through a peer review committee, which makes its recommendations based on scientific and technological merit. Researchers pay nothing for use of the facility. In the past 12 months, some 70 research projects have been conducted at CHES. Projects require from several days to several weeks to complete the data-gathering phase at CHES.

Researchers use CHES "because they want to know why materials behave as they do, why things are colored, why things are strong, why things are ductile," explains Boris W. Batterman, professor of physics at Cornell and director of the facility.

"You have to know what the arrangement of atoms is because, ultimately, it is their arrangement that determines the structure and properties of materials," the director notes. "Once you understand the way atoms are put together in things that exist, then you can start to put atoms together to do things that nature didn't quite come up with. The tuneable source of

radiation from the synchrotron allows us to probe the arrangement of atoms in a material at a speed and facility that was never before possible."

"Teaching" Bacteria to make Energy  
Bacteriorhodopsin, a membrane protein produced by the bacterium, *Halobacterium halobium*, and which has dramatic similarities to the light-sensitive protein, rhodopsin, in the retina of the human eye, could be used in a solar converter, believes Aaron Lewis, a Cornell associate professor of applied and engineering physics who is using CHES to conduct kinetic experiments that would not be possible with a

conventional x-ray source or even with other types of synchrotron light sources. By alternating laser pulses, which set in motion a sequence of extremely fast photochemical reactions in the bacteriorhodopsin, with pulses from the CHES x-ray source, Lewis is able to follow changes in the substance with an ultimate resolution of 100 picoseconds. In the eye, photons striking rhodopsin molecules in the rods of the retina are transduced to electrical signals which travel to the brain. The researcher thinks it will be possible eventually to use genetic engineering techniques

Continued on Page 6

# Calendar

All items for publication in the Calendar section, except for Seminar notices, must be submitted by mail or in person to Fran Apgar, Central Reservations, 532 Willard Straight Hall, at least 10 days prior to publication. Seminar notices should be sent to Barbara Jordan-Smith, News Bureau, 110 Day Hall, by noon Friday prior to publication. Items should include the name and telephone number of a person who can be called if there are questions, and also the subheading of the Calendar in which it should appear (lecturers, colloquia, etc.). ALL DEADLINES STRICTLY ENFORCED.  
\*Admission charged.

## Announcements

**Empathy, Assistance & Referral Service EARS**, a walk-in and phone counseling service, is staffed by Cornell student counselors. EARS counselors can recommend groups and strategies to combat loneliness, provide information and arrange appointments with professionals when necessary. The lines are open every day of the week in the afternoon and evening. Drop by 211 Willard Straight Hall or call 256-3277 or 256-7243.

### Tours of Uris Undergraduate Library

Tours of Uris will occur on Weekdays Sept. 27 through Sept. 29. Interested persons should meet near the circulation desk at the following times and days: Mon. Sept. 27, 11:15 a.m.; Tues. Sept. 28, 1:25 & 3:35 p.m.; Wed. Sept. 29, 2:30 p.m. Handicapped students needing special tours should call 256-2339.

### Weigh Station

Jan Gibbs holds Weigh Station meetings for weight control each Thursday from 12 noon-1 p.m. at Barton Hall Blockhouse. Open to Professors, Students, Staff. For more information call 257-0853.

### Work with Alumni at Homecoming

Students are needed to greet and assist alumni during Homecoming Oct. 16. Free lunch included. For more information and signup, call 256-3516 or 256-4850 by Oct. 6.

### Thursday

Sept. 23, noon-2 p.m. Purcell Union Lounge (formerly North Campus Union). Fall Tea and activity sign-up for all Cornell women—employees, wives, graduate students. Sponsored by Cornell Campus Club.

### My Indoor Playcenter

Registration is Sept. 24, 9:30-11:30 a.m. at the Robert Purcell Multi-purpose room. There is an ongoing registration. The playcenter provides large motor development equipment and toys for children ages birth to 4 years of the Cornell community. Children use the toys while the parents or other interested adults observe and interact with the children.

### Friday

Oct. 1, 8 p.m. \*Statler Auditorium. Korean Cultural Night. Traditional Korean folk dancing performed by professional dancing group; traditional Korean costume fashion show; demonstration of "Tae Kwon Do" (martial arts) by Korean experts. Sponsored by Korean Students at Cornell.

### Saturday

Oct. 2, 1 p.m. Straight Memorial Room. Korean Bazaar by wives of students.

Oct. 2, 7 p.m. \*Anabel Taylor One World Room. Traditional full course Korean dinner prepared by wives of students. Light entertainment; performances of Korean music and dance.

### Sunday

Sept. 26, 12 noon-5 p.m. Roller World at Pyramid World. Chinese Students Association Roller Skating Party. Rides coordinated by CSA. Call 256-5838. \$1 admission.

## Colloquia

### Thursday

Sept. 23, 4:30 p.m. Space Sciences 105. Astronomy and Space Sciences: "The Infrared Astronomy Satellite Project (IRAS)," Dr. James Houck, Professor, Astronomy, Cornell.

## Dance

Every Thursday Anabel Taylor One World Room. Israeli folkdancing. 8-9 p.m. teaching, 9-11 p.m. requests. Beginners through advanced. Everyone welcome.

### Friday

Sept. 24, 8:15 p.m. \*Statler Auditorium. Bill T. Jones and Arnie Zane, noted New York choreographers in program of Solos and Duets. Spon-

sored by Cornell Dance Series and the National Endowment for the Arts.

### Wednesday

Sept. 29, 7:30 p.m. Straight Memorial Room. Cornell International Folk Dancing. Beginners welcome.

## Exhibits

Herbert F. Johnson Museum "Photographs by Bill Brandt" through Sept. 30; "Images of Dignity: A Retrospect of Charles White" through Oct. 24; "The World of Donald Evans" through Oct. 24. "Francesc Torres: Field of Action" Sept. 29. Museum hours: 10 a.m.-5 p.m. Tuesday through Sunday.

Laboratory of Ornithology Exhibit of bird paintings by John Wiessinger. John is an area resident and a former artist-in-residence at Laboratory of Ornithology. Exhibit is open 8 a.m.-5 p.m. on Sat. & Sun. Free parking. Exhibit shown through Oct. at the Lyman K. Stuart Observatory, 159 Sapsucker Woods Road.

## Intramurals

Intramural Broomstick Polo-Mixed Open (Men, Women, Co-ed)

Deadline on entries is Tuesday, Sept. 28 at 4 p.m. in the Intramural Office, Grumman Squash Courts Bldg. across from Teagle Hall. Due to the fact that we are limited to the number of teams that can be accepted, entries will not be accepted until Tuesday, Sept. 28 at 9 a.m. in the Intramural Office, on a first come, first served basis. One team per organization. A fee of \$15 per team, due with your roster to enter. Checks only please, payable to Dept. of Phys. Ed. & Ath., Intra. Div. No refunds after deadline. Minimum of 5 to enter, 3 constitute a team. Single elimination tournament. Play will be at the Oxley Polo Arena. Approximately 3 minutes running time for each game. No substitutions during the game.

## Films

Unless otherwise noted films are under sponsorship of Cornell Cinema.

### Thursday

Sept. 23, 6 p.m. \*Uris Hall Auditorium. "Blow-Up" (1967), directed by Michelangelo Antonioni, with David Hemmings, Vanessa Redgrave.

Sept. 23, 10:30 p.m. \*Uris Hall Auditorium. "Blow Out" (1981), directed by Brian De Palma, with John Travolta, Nancy Allen.

### Friday

Sept. 24, 7:30 p.m. Uris Hall Auditorium. "The Mystery of Oberwald" (1981), directed by Michelangelo Antonioni with Monica Vitti. Sponsored by the Arts College Pentangle Series.

Sept. 24, 9:30 & 11:45 p.m. \*Uris Hall Auditorium. "Blow Out."

### Saturday

Sept. 25, 12 mid. \*Uris Hall Auditorium. "Blow-Up" (1967), directed by Michelangelo Antonioni, with David Hemmings, Vanessa Redgrave.

### Sunday

Sept. 26, 8 p.m. \*Uris Hall Auditorium. "Young Torless" (1966), directed by Volker Schlöndorff, based on novel by Robert Musil.

### Monday

Sept. 27, 9 p.m. \*Uris Hall Auditorium. "The Long Goodbye" (1973), directed by Robert Altman, with Elliott Gould, Nina von Pallandt, Sterling Hayden. This film has been chosen by Michelangelo Antonioni, and he will be present at the screening. This is limited to Film Club members only.

### Tuesday

Sept. 28, 4:30 p.m. Rockefeller D. Southeast Asia Program Free Film Series: a series of films showing major Southeast Asian cities: "Jakarta," "Kuala Lumpur," "Bangkok," "International City: Singapore."

Sept. 28, 8 p.m. \*Uris Hall Auditorium. "Edward Munch" (1976), directed by Peter Watkins, with Gar Westby and Gro Fraas. Shown with "Uberfall." Wednesday

Sept. 29, 8 p.m. \*Uris Hall Auditorium. "Padre Padrone" (1977), directed by Paolo and Vittoria Tavani, with Omero Antonutti.

### Friday

Oct. 1, 10 p.m. \*Uris Hall Auditorium. "The Plumber" (1980), directed by Peter Weir, with Judy Morris.

### Saturday

Oct. 2, 7:30 & 10 p.m. \*Uris Hall Auditorium. "Gallipoli" (1981), directed by Peter Weir, with Mel Gibson, Mark Lee.

Oct. 2, 7:30 & 10 p.m. \*Statler Auditorium. "Victor, Victoria" (1982), directed by Blake Edwards, with Julie Andrews, James Garner, Robert Preston.

Oct. 2, 12:15 a.m. \*Uris Hall Auditorium. "The Plumber" (1980), directed by Peter Weir, with Judy Morris.

### Sunday

Oct. 3, 8 p.m. \*Uris Hall Auditorium. "Why Shoot the Teacher?" (1979), directed by Sylvia Narrizano, with Bud Cort, Samantha Eggar.

## Lectures

### Thursday

Sept. 23, 12:20 p.m. 102 West Ave. Southeast Asia Thursday brown-bag luncheon seminar: "Kampuchea and the United Nations," Elizabeth Becker, former Foreign correspondent in Cambodia and currently a Visiting Fellow at The Institute for Policy Studies. Bring your lunch; coffee, tea and cookies are provided.

Sept. 23, 4:30 p.m. Martha Van Rensselaer N-207. "The Future and Higher Education: The Role of Experimental Learning," Arthur Shostak, Professor of Psychology and Sociology, Drexel University.

Sept. 23, 4:30 p.m. Ives 217. "Bearing and Rearing Children in Reformation Europe," Professor Steven Ozment, History Department, Harvard University. Sponsored by Western Societies Program.

### Friday

Sept. 24, 2 p.m. West Sibley 115. "Bureaucracy as Discipline: Weber and Foucault," John O'Neill, Professor of Sociology, York University. Author of "Perception, Expression and History;" "Sociology as a Skin Trade;" "Making Sense Together: An Introduction to Wild Sociology." Sponsored by Departments of City and Regional Planning and Government.

Sept. 24, 3 p.m. Malott Hall Bache Auditorium. "Sponsored Real Estate," James Boisi, Vice Chairman of the Board, Morgan Guaranty Trust Company. Sponsored by the Graduate School of Business and Public Administration and the College of Architecture, Art and Planning.

### Saturday

Sept. 25, 8 p.m. Uris Hall Auditorium. Michelangelo Antonioni, A.D. White Professor-at-Large will speak on his latest picture "Identification of a Woman." To be followed by the first screening of "Profession: Reporter" (uncut version of "The Passenger"). Free tickets available at Willard Straight Hall Lobby Table as of September 20.

### Tuesday

Sept. 28, 2 p.m. Goldwin Smith Hollis E. Cornell Auditorium. Korean Students at Cornell Seminar: "U.S.A.-Korea, Past, Present and Future Relationship." Speakers are being planned; one from Cornell and two other speakers from the outside area. Part of Korea Week.

Sept. 28, 4:30 p.m. Goldwin Smith Hollis E. Cornell Auditorium. "Chardin and the 18th Century Science of Vision," Michael Baxandall, Warburg Institute, London, and A.D. White Professor-at-Large. Professor-at-Large Lecture. Sept. 28, 4:30 p.m. A.D. White House 110. Society for the Humanities Seminar: "The Social

SEPTEMBER						
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and Political Uses of Language in France, 1500-1800," Jacques Revel, Ecole des Hautes Etudes en Sciences Sociales, Paris; Senior Fellow, Society for the Humanities. Wednesday

Sept. 29, 4:30 p.m. Goldwin Smith Hollis E. Cornell Auditorium. "Aesthetic and Functional Evolution of New Swiss Bridge," Christian Menn, Professor of Structural Engineering, Swiss Federal Technical University, Zurich. Sponsored by University Lectures Committee and Department of Structural Engineering.

Sept. 29, 7:30 p.m. Anabel Taylor One World Room. "America and World Community," an interdisciplinary course. African and Asian Role in the Formation of the West and World Community," Martin Bernal, Associate Professor of Government.

### Thursday

Sept. 30, 12:20 p.m. 102 West Ave. Southeast Asia Thursday brown-bag luncheon seminar: "A Musical Definition of Ethnic Identity in Thailand," Dr. Terry Ellis Miller, Professor of Musicology, Kent State University. With performed examples of "Kaen/Khene." Bring your lunch, coffee, tea and cookies will be provided.

### Friday

Oct. 1, 8 p.m. Anabel Taylor Founders Room. Cornell Graduate Christian Forum Lecture: "Truth and Faith: Complementary or Contradictory?" Lloyd F. Dean, Professor of Philosophy at the Community College of R.I.

## Meetings

Every Monday, 6 p.m.

Willard Straight Loft II. Meeting of the Chinese Students Association to plan and develop activities. Open to all.

Every Thursday, 12 noon-1 p.m.

Barton Hall Blockhouse. Jan Gibbs holds Weigh Station meetings for weight control for professors, students, staff. For more information call 257-0853.

Anabel Taylor Forum. Open A.A. meeting.

Every Sunday, 1-5 p.m.

Willard Straight North Room. Cornell Duplicate Bridge Club. Beginners welcome.

## Music

### Violin and Piano Concert Planned

Guest musicians Sylvia Rosenberg and Robert Spillman will perform music for violin and piano in a free public concert at 8:15 p.m. Saturday, Sept. 25, at Barnes Hall.

They will play Suite Italienne by Stravinsky, Sonatas by Walton and Janacek, and Bach's Sonata No. 1 in G Major, Opus 78.



SYLVIA ROSENBERG

OCTOBER						
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Rosenberg, a native New Yorker, studied violin with Ivan Galamian and graduated from the Juilliard School of Music. She also worked with Szymon Goldberg and, in Paris on a Fulbright grant, with Mile. Nadia Boulanger. She has played with major orchestras in Europe and the United States: Chicago Symphony, National Symphony of Washington, Amsterdam Concertgebouw, Stockholm Royal Philharmonic, London Symphony, New Philharmonia, Royal Philharmonic, Halle and BBC Orchestras. In addition to music festivals and annual engagements in Britain, continental Europe and America, her tours have included the Far East, and recently a return tour of Australia and New Zealand.

Rosenberg lived in London for 15 years until 1979, when she returned to this country to join the faculty of the Eastman School of Music.

Pianist Spillman is active as a collaborative artist, opera coach and piano soloist. After graduating from Eastman with bachelor's and master's degrees and performers certificate, he became a member of the Gruppe Neue Musik Berlin and the faculty of Berlin's Schiller College. His teachers have included Artur Balsam, Sergius Kagan, Hermann Reuter and Jose Echaniz.

While a student, Spillman was pianist of the Rochester Philharmonic Orchestra. He has subsequently appeared with the BBC, Swiss Radio, Austrian RTF and Berlin Radio Symphonies. Since 1973, he has been at the Eastman School as an associate professor of keyboard and voice, and coordinator of the school's opera program. He has also been a participant in the Aspen Summer Music Festival for the past several years.

The Saturday evening concert is one of a series of free concerts sponsored by the Cornell Department of Music.

**Saturday**  
Sept. 25, 8:15 p.m. Barnes Hall. Sylvia Rosenberg, violin. Works of Stravinsky, Walton, Janacek, Brahms.

**Thursday**  
Sept. 30, 8:15 p.m. \*Statler Auditorium. Faculty Committee on Music concert: Aston Magna, Baroque Ensemble. Bach Brandenburg concerti. (Statler Series).

**Friday**  
Oct. 1, 8:15 p.m. Sage Chapel. Frederick Mayer, organ.

**Saturday**  
Oct. 2, 8:15 p.m. \*Sage Chapel. Parents Weekend Concert: Nothing But Treble.

**Sunday**  
Oct. 3, 4 p.m. Barnes Hall. Penelope Roskell, piano. Works of Stravinsky.

### Religious Activities

Every Wednesday, 3:30-4:30 p.m. Uris Hall 320. Study group sponsored by Cornell Baptist Student Ministries. Series Topic: "How to Get the Most Out of Your Prayer Life."

Every Thursday, 7 p.m. Anabel Taylor Founders Room. Christian Science Organization.

**Sunday**  
Sept. 26, 5 p.m. Anabel Taylor One World Room. Erev Yom Kippur Services and Dinner. For more information contact Hillel Office at 256-4227.

### Religious Services

**Catholic**  
Every Monday-Friday, 12:15 p.m. Catholic Mass. Anabel Taylor G-19. Saturday, 5 p.m. Mass. Anabel Taylor Chapel. Sunday 9:30 & 11 a.m. Masses. Anabel Taylor Auditorium. Sacrament of Reconciliation by appointment.

**Baptist**  
Every Sunday, Ithaca Baptist Church, 1825 Slaterville Road, 9:45 a.m. Bible Study; 11 a.m. Worship Service; 6 p.m. Discipleship Training; 7 p.m. Worship Service.

**Episcopal**  
Every Sunday, 9:30 a.m. Anabel Taylor Chapel.

**Friends (Quakers)**  
Every Sunday 9:45 a.m. Anabel Taylor Edwards Room. 9:45 a.m. adult discussion; 11 a.m. meeting for worship.

**Jewish**  
Every Friday, 7:30 p.m. (Orthodox), Young

Israel House; Friday, 7:30 p.m. (Conservative), Anabel Taylor Edwards Room. Saturday, 9:15 a.m. (Orthodox), Anabel Taylor Edwards Room. Muslim

Every Monday-Thursday, 1 p.m. Anabel Taylor 218; Friday, 1 p.m. Anabel Taylor Edwards Room.

**Protestant Church**  
Every Sunday, 11:15 a.m. Anabel Taylor Chapel.

Every Friday, 6:15 p.m. Anabel Taylor Chapel. Hillel Shabbat Services (Reform).

Every Friday, 6:15 p.m. Anabel Taylor Founders Room. Hillel Shabbat Services (Conservative).

Every Friday Shabbat Services (Orthodox). Call 272-5810 for information.

Every Saturday, 9:15 a.m. Anabel Taylor Edwards Room. Shabbat Services (Orthodox).

Every Saturday, 10 a.m. Anabel Taylor Founders Room. Shabbat Services (Conservative).

**Sunday**  
Sept. 26, 11 a.m. Sage Chapel. Sage Chapel Service: Ingrid Olsen-Tjensvold, Assistant Director, Cornell United Religious Work.

**Sunday**  
Oct. 3, 11 a.m. Sage Chapel. Sage Chapel Service: Nancy Gaenslen, Adviser, Friends (Quakers) at Cornell.

Every Sunday 9:30 & 11 a.m., & 5 p.m. Anabel Taylor Auditorium. Catholic Mass. Friday Sept. 24, 6:15 p.m. Anabel Taylor Chapel. Erev Shabbat Services (Reform).

Sept. 24, 6:15 p.m. Anabel Taylor Founders Room. Erev Shabbat Services (Conservative/Egalitarian).

**Saturday**  
Sept. 25, 9:15 a.m. Anabel Taylor Edwards Room. Shabbat Services (Orthodox).

Sept. 25, 10 a.m. Anabel Taylor Founders Room. Shabbat Services (Conservative/Egalitarian).

**Sunday**  
Sept. 26, 6 p.m. Anabel Taylor Edwards Room. Kol Nidre Services (Orthodox).

Sept. 26, 6:30 p.m. Statler Auditorium. Kol Nidre Services (Conservative/Egalitarian).

Sept. 26, 7:15 p.m. Anabel Taylor Auditorium. Kol Nidre Services (Reform).

**Monday**  
Sept. 27, 9 a.m. Anabel Taylor Edwards Room. Yom Kippur Services (Orthodox).

Sept. 27, 10 a.m. Statler Auditorium. Yom Kippur Services (Conservative/Egalitarian).

Sept. 27, 10 a.m. Anabel Taylor Auditorium. Yom Kippur Services (Reform).

**Wednesday**  
Sept. 29, 2-5 p.m. Courtyard of Anabel Taylor Hall. Sukkah building, at 4 p.m. Sukkah decorating and party.

Sept. 29, 2-5 p.m. Courtyard of Anabel Taylor Hall, Sukkah building.

**Sunday**  
Sept. 30, 4 p.m. Courtyard of Anabel Taylor Hall. Sukkah decorating and party.

### Seminars

**Agricultural Engineering:** "Modeling and Evaluation of Integrated Energy Systems in Agriculture." L.P. Walker, 12:20 p.m. Monday, Sept. 27, O.C. French Seminar Room, 400 Riley-Robb Hall.

**Agronomy:** "The Occurrence and Significance of Imogolite in Soils of Scotland and New York," Murray B. McBride, 4 p.m. Tuesday, Sept. 28, 135 Emerson Hall.

**Atomic & Solid State Seminar: Solid State Seminar:** "Applications of Surface Electromagnetic Wave Spectroscopy to Thin Film Analysis," G.N. Zhizhin, Institute of Spectroscopy, USSR Academy of Sciences, 4:30 p.m. Tuesday, Sept. 28, 700 Clark.

**Atomic & Solid State Physics: Theory Seminar:** "Quantum Tunneling in Superconducting Interference Devices," Sudip Chakravarty, SUNY Stony Brook and CU, 1:15 p.m. Thursday, Sept. 30, 701-702 Clark Hall.

**Biological Sciences:** "An Electrogenic, Anion-Sensitive H<sup>+</sup>-ATPase in Corn Root Membrane Vesicles," Alan Bennett, 11:15 a.m. Friday, Sept. 24, 404 Plant Science.

**Boyce Thompson Institute:** "Chemical Cues and Egg Laying Strategies of Phytophagous Insects," J.A.A. Renwick, BTI, 3:15 p.m. Wednesday, Sept. 29, BTI Auditorium.

**Business and Public Administration:** "The Evaluation of Advertising Miscomprehension," David C. Schittlein, University of Pennsylvania, 4 p.m. Monday, Sept. 27, 224 Malott Hall. Part of the series in Current Research in Marketing.

**General Chemistry:** "Transition State Theory and Molecular Chaos," Bruce Berne, Columbia University, 4:40 p.m. Thursday, Sept. 30, 119 Baker Lab.

**Design & Environmental Analysis:** "Musical Offices: Managing A Large Scale Staff Relocation," Mary Gauer, Kellogg Company, 4:30 p.m. Monday, Sept. 27, 317 MVR.

**Ecology & Systematics:** "Systematics and the Development of Wright's Theory of Evolution in Nature," William B. Provine, 4:30 p.m. Wednesday, Sept. 29, Morison Seminar Room, Corson Hall.

**Food Science:** "Technical Applications of Salt in Foods," Walter Wilkens, Diamond Crystal Salt Co., 4:30 p.m. Tuesday, Sept. 28, 204 Stocking Hall.

**Geological Sciences:** "Mechanism of Subduction and the Tectonics of Convergent Plate Margins," W. Hamilton, USGS, 4:30 p.m. Thursday, Sept. 23, 205 Thurston Hall.

**JUGATAE:** "Oviposition Site Preference in Fungus-Feeding Drosophila," John Jaenike, SUNY at Binghamton, 4 p.m. Monday, Sept. 27, 100 Caldwell Hall.

**Materials Science & Engineering:** "Ion Implantation in Diamond," R. Kalish, Technion, 4:30 p.m. Thursday, Sept. 23, 140 Bard Hall.

**Mechanical and Aerospace Engineering:** "Finite Elements and Singularities," Lars Wahlbin, 4:30 p.m. Tuesday, Sept. 28, 282 Grumman.

**Neurobiology & Behavior:** "The Locust Ear Revisited: The Mechanical Basis of Frequency Analysis and the Adequate Stimulus," Henry Clark, 12:30 p.m. Thursday, Sept. 23, 1st Floor Atrium, Morison Seminar Room.

**Nutritional Sciences:** "Dietary Regulation of Thyroid Hormone Metabolism in Humans and Rats," Ralph Cavalieri, Veterans Administration Medical Center and University of California, San Francisco, 4:30 p.m. Monday, Sept. 27, 100 Savage Hall.

**Operations Research:** "Bayes and Empirical Bayes Estimates of an Ensemble of Parameters," Thomas A. Louis, Harvard University, 4:30 p.m. Tuesday, Sept. 28, 315 Upson.

**Organic/Inorganic Chemistry:** "Mechanism and Control of Phosphoryl Transfer Enzymes," Joseph Villafranca, Penn. State University, 8:15 p.m. Monday, Sept. 27, 119 Baker Lab.

**Ornithology:** "Predation and Protective Coloration in Arctic Shorebirds," Brian McCaffrey, 7:45 p.m. Monday, Sept. 27, Stuart Observatory, Sapsucker Woods Road.

**Vegetable Crops:** "Soil Management Practices in the Northeast," Winston A. Way, University of Vermont, 4:30 p.m. Thursday, Sept. 30, 404 Plant Science Bldg.

**Psychology:** "Personal Theories of Intelligence: Their Impact on Learning and Performance," Carol Dweck, Harvard University, 3:30 p.m. Friday, Sept. 24, 202 Uris Hall.

**Toxicology:** "The Effects of Chlorinated Hydrocarbons on Phytoplankton," G-Yull Rhee, NYS Dept. of Health, 12:20 p.m. Friday, Sept. 24, 100 Savage Hall.

**Sports**  
Sept. 24, 4:30 p.m. Moakley Course. Men's JV Cross Country-Syracuse.

Sept. 24, 5:15 p.m. Moakley Course. Men's Varsity Cross Country-Syracuse.

Sept. 24, 5:15 p.m. Moakley Course. Women's Cross Country-Syracuse.

Sept. 24, 7 p.m. Upper Alumni Field. Men's JV Soccer-Cortland.

Sept. 24, 7:30 p.m. Schoellkopf. Men's 150-lb. Football-Pennsylvania (non-league).

**Saturday**  
Sept. 25, 1:30 p.m. \*Schoellkopf. Men's Varsity Football-Colgate.

**Sunday**  
Sept. 26, 12 noon Schoellkopf. Men's 150-lb. Football-Alumini.

**Monday**  
Sept. 27, 7:30 p.m. Upper Alumni Field. Women's Varsity Field Hockey-St. Lawrence.

Sept. 27, 7:30 p.m. Schoellkopf. Men's JV Soccer-Scranton.

**Wednesday**  
Sept. 29, 7:30 p.m. Schoellkopf. Women's Varsity Field Hockey-William Smith.

Sept. 29, 8:30 p.m. Schoellkopf. Women's JV Field Hockey-William Smith.

**Friday**  
Oct. 1, 7:30 p.m. Schoellkopf. Men's 150-lb. Football-Navy.

**Saturday**  
Oct. 2, 1:30 p.m. \*Schoellkopf. Men's Varsity Football-Boston University.

### Theater

**Thurs. through Sat**  
Sept. 23-25, 8:15 p.m. \*Willard Straight Theatre. Theatre Cornell production: "Curse of the Starving Class" by Sam Shepard. Part of the Festival: "Illusions of the American Dream: A Study in the American Way."

**Thurs. through Sat**  
Sept. 30-Oct. 2, 8:15 p.m. \*Willard Straight Theatre. Theatre Cornell production: "Curse of the Starving Class" by Sam Shepard.

**Sunday**  
Oct. 3, 2:30 p.m. \*Willard Straight Theatre. Theatre Cornell production: "Curse of the Starving Class" by Sam Shepard.

**Thurs. through Sat**  
Sept. 30-Oct. 2, 8:15 p.m. \*Risley Theatre. "Rosencrantz and Guildenstern are Dead" by Tom Stoppard. Directed by Lee Medovi. \$2.50 tickets. For reservations call 256-0662.

**Notice to Faculty Fulbright Applicants**  
The deadline for application to the 1983-84 Fulbright Senior Scholar Program has been extended to Sept. 30, 1982. This new deadline applies to Africa, Asia, Europe and the Middle East. Applications for Latin American and Caribbean countries are still being accepted after the original due date of June 15 until adequate panels of candidates are secured. Office of Sponsored Programs Library at 115 Day Hall has application packets.

# Sponsored Programs

## Barton Blotter

The two stones honoring Ezra Cornell stolen from campus Sept. 9 were discovered early Saturday morning, the day of the Cornell-Princeton Football game, leaning against the main entrance to Nassau Hall, Princeton University's main administration building.

According to the Cornell Department of Public Safety, it was notified about 2:40 a.m. that the stones had been discovered by Princeton safety shortly after 1 a.m.

How they got there and who stole them was still a mystery to Cornell and Princeton safety officials early this week. Plans were being made to return the stones, valued at about \$2,800, to campus this week. They were reported to be undamaged.

They were taken from the site of the construction of a new terrace adjacent to Uris Library to recognize the university's "Foremost Benefactors."

A total of \$17,417 in cash and property were reported stolen on campus during the seven-day period between Sept. 13 and Sept. 19, according to the morning reports of the Department of Public Safety.

The largest single theft was of a moose head and a buffalo head, stuffed trophies, taken from Chi Psi fraternity at 810 University Ave.

Five wallets and one purse containing more than \$500 in cash and valuables were stolen from dormitories and academic buildings on campus. One wallet, later recovered empty, contained \$300 in cash and was taken from a room in Uris Hall.

Four 10-speed bicycles were stolen. Total value was more than \$600. Some \$383 worth of tools were taken from a garage the university operates on Snyder Hill Road.

A \$350 stereo was taken from a room at North Campus 1. A radio, currency, speaker, turntable and calculator were reported stolen from a room in Founders Hall.

# Graduate Bulletin

All completed optical mark course registration forms should be turned in to Sage Graduate Center by tomorrow, Sept. 24. Use your Social Security number where the ID number appears.

The deadline for registration is tomorrow, Sept. 24. After that, late initial course registration and/or course additions are still possible upon payment of a \$10 late fee.

Oct. 29 is the deadline for dropping courses or changing the grade option.

In nominating their Special Committees, graduate students must elect only members of the Graduate Faculty in the appropriate fields.

Graduate students whose employment is other than a teaching or research assistantship and is in excess of 10 hrs per week (and is not contributory toward the degree) or 20 hours per week (and is contributory) may be eligible for proration of tuition. Applications are available at the Information Desk, Sage Graduate Center.

To be eligible for a special tuition rate of \$900 per semester, doctoral candidates must have completed three years of residence, taken the 'A' exam, and be taking no courses. Check with the Graduate School for details and application forms.

**REMINDER:** Information concerning the Fulbright-Hays Doctoral Dissertation Research Abroad Training Grant Program is available at the Fellowship Office, 116 Sage Graduate Center. Applications are available as follows:

East Asia: China-Japan Program  
East Europe and Russia: Committee on Soviet Studies

Latin America: Latin American Studies Program

South Asia: South Asia Program  
Southeast Asia: Southeast Asia Program  
other nonWestern European Countries: Fellowship Office

Tomorrow, Sept. 24, is the deadline for submitting applications and supporting credentials for Fulbright-Hays Grants for Graduate Study Abroad. Submit them to the Graduate School Office, 100 Sage Graduate Center.

Check the Fellowship Notebook at your graduate faculty representative's office or at the Fellowship Office for additional information on the awards whose deadlines are listed below. Unless otherwise indicated, applications must be obtained directly from the sponsoring organization.

Oct. 15: National Hispanic Scholarship Fund — provides scholarship support for graduate and undergraduate students of Hispanic-American background: Mexican-American, Puerto-Rican, Cuban, Caribbean, Central American and South American heritage. Applications are available at the Fellowship Office.

Oct. 15: Fulbright-Hays Doctoral Dissertation Research Abroad Training Grants Program — application deadline for applicants to African and Middle Eastern countries only. Applications are available at the Fellowship Office.

Graduate students are reminded that waiver cards for those who do not wish to participate in the Student Health and Accident Insurance plan must be received at Gannett Health Center by Monday, Sept. 27.

## CIVITAS

**LOCAL NATURE CENTER OFFERS OUTLETS FOR YOUR TALENTS:** 1) Interested in carpentry, maintenance? You may help build a log lean-to, sugar shack or small bridges, maintain trails, fix up a pioneer homestead; 2) Interested in environmental education? If you are willing to give a whole day till 3 p.m., you may work with groups of children in natural history or other related areas; 3) Interested in photography or art? You may photograph programs in action, help design and illustrate brochures or create a T shirt logo. For all these, you will need a car, or, if that is impossible, come to CIVITAS for help with transportation. Work schedules are flexible.

**IF YOU HAVE CURRENT WSI, RED CROSS FIRST AID AND/OR RED CROSS CANOEING CERTIFICATION:** Local Girl Scouts organization would like to add you to their registry of volunteers to accompany groups on outings from time to time. Of course, participation is voluntary if the time is not right. Thp Girl Scouts are also seeking Assistant Leaders for troops whose schedules and meeting locations are currently being set up. Come to CIVITAS to register an interest in helping the Girl Scouts, and we will make contact for you.

**HANDICAPPED PRE-SCHOOL EDUCATION SOLID LEARNING OPPORTUNITY:** Classroom helper needed Tues. and Thurs. mornings, 8:45-11:30, for the semester, at Center for Handicapped Preschoolers serving 35 children, 2-5 years, who suffer varied handicaps: brain damage, retardation, cerebral palsy, spina bifida, etc. Car needed as Center is outside Ithaca. For someone with an interest in special education, free time and access to transportation, this could be a very worthwhile experience.

**ON-CAMPUS MEDICAL FACILITY SEEKS:** Volunteer to do illustrations and layout as team member producing brochures and newsletters. Also would like to compile list of those interested in becoming first-aid or CPR instructors. Training provided for first aid/CPR opportunity. CIVITAS will put you in touch with the appropriate person.

**LOCAL ANIMAL SHELTER NEEDS VOLUNTEERS:** 1) For office work, M-F, between 9-5, and Sat. or Sun., 1-3:15 p.m., in work which includes answering calls, follow up telephoning on the neutering program, statistics, the newsletter, matching lost and found pets, etc.; 2) Kennel workers needed Sats. and, most especially, Suns., between 9-3:15 p.m., to assist in cleaning cages and kennel runs, disinfecting walkways and floors, feeding and watering animals, walking dogs, logging in animals, etc. Staff guidance provided to all volunteers.

**GROUP OF SENIOR CITIZENS:** Are looking for a swim instructor to provide assistance to individuals, in a group setting, at the Sheraton Pool, Fri. mornings, 10:15-11:30 a.m. Also needed: two volunteers to lead exercises in

swimming pool for arthritics, also at Sheraton, Tues. mornings, 10:30-11:30 a.m. Related experience helpful for the latter opportunity.

**ASSISTANCE OF CHILD DEVELOPMENT/CHILD PSYCHOLOGY/HOME ECONOMICS MAJORS REQUESTED:** To work with and organize 4H resources, supplement what is missing and develop program ideas in the areas of Child Care, Home Environment or Clothing and Textiles. Flexible hours, M-F, between 9-5, with a once-a-week visit to the 4H office, and the rest of the work on your own time at home.

**MORE 4H OPPORTUNITIES:** 1) Dog Training Program: volunteers with or without dog expertise needed immediately for Mon. eves., 6:30-8:30 p.m., for 10-11 weeks in Cornell's Livestock Pavilion; 2) Teen Programming: workers for survey of teens in 4H to assess program interests and needs, maybe then to develop and run new programs; 3) Teen Leadership Program: leader needed to run program involving group dynamics, communication skills and other aspects of leadership training. 4H has other resources to help you. 4) Livestock Program: needs a volunteer with expertise in dairy judging or livestock evaluation to coach 4Hers in how to evaluate a quality animal. Involves visiting farms for practice judging, but county cars provided and people resources to help you. Tome commitment: all you can manage. Program culminates in 4Hers buying animals next spring to raise for 4H meat animal sale at 4H Fair, Aug., 83.

**CAMPUS NURSERY SCHOOL SEEKS VOLUNTEERS TO BE TEACHERS' AIDES:** Help especially needed Mon, Wed. or Fri. from either 8:45-11:45 a.m. or 12:45-3:45 p.m. Children are aged 3-4 years, and 60 percent do not have English as their first language. The need for assistance is especially urgent right now when so many children are unfamiliar with their new environment and unable to understand what is being said to them.

**BLIND CORNELL STUDENT OFFERS VOLUNTEER READERS SPANISH TUTORING ON EXCHANGE BASIS:** This student needs assistance from readers while she writes her thesis: "Child Language Acquisition." Or you can help with a neurobiology course she is auditing. In return, she will offer you 2-3 hrs./wk. of Spanish tutoring. Location within easy walking distance of campus.

**TO OFFER YOUR HELP: COME TO CIVITAS,** 119B Anabel Taylor Hall, or call 256-7513. Open M, W, F, 9-3; T, Th, 10-2.

## People

### Bronfenbrenner Gets Degree

Cornell professor Urie Bronfenbrenner has been awarded an honorary Doctor of Family Science degree from Brigham Young University where he was the graduation speaker at BYU's 107th Summer commencement exercise.

The honor was bestowed on Bronfenbrenner for "his unique and significant contribution to the understanding of children and families, and for his willingness to work to improve that society which nurtures both."

In his commencement address, which was broadcast live in the region, Bronfenbrenner stressed the value of family and community on the development of children, and described the changing role of women. He also pointed to the combined adverse effects on children of inflation, government cutbacks, unemployment, and the resulting poverty.

An expert on developmental psychology, child-rearing, and the ecology of human development, Bronfenbrenner is well-known for his cross cultural studies, as a founder of Head Start, and as a scholar, teacher, and author. He is the Jacob Gould

Elmer E. Ewing has been appointed chairman of the department of vegetable crops for a three-year term effective Aug. 1, 1982. He succeeds Robert Sweet. A specialist on the physiology of potatoes, Ewing has been a member of the faculty in the State College of Agriculture and Life Sciences since 1958.

Schurman Professor of Human Development and Family Studies in the New York State College of Human Ecology and professor of psychology in the College of Arts and Sciences, both at Cornell.

Born in Moscow, Russia, Bronfenbrenner earned the B.S. degree (1938) from Cornell M.S. (1940) at Harvard University, and Ph.D. (1942) in developmental psychology from the University of Michigan.

Albert R. George has been re-elected to a second five-year term as director of the Sibley School of Mechanical and Aerospace Engineering. Edwin L. Resler Jr. will be acting director of the School for the period Aug. 19 through Jan. 5, 1983, while George is on sabbatical leave. Resler, the Joseph Newton Pew Jr., professor in Engineering, served as director of the Sibley School from 1972 to 1977. George was assistant director of the school from 1972 to 1977.

James W. Boodley, professor of floriculture, has been elected a Fellow of the American Society for Horticultural Science (ASHS). Boodley was recognized for his "contributions to horticultural science and to ASHS in furthering the society's objectives." He has been a faculty member in the State College of Agriculture and Life Sciences since 1958.

### Many Disciplines Use CHESS

Continued from Page 3

to teach a common bacterium, such as E. Coli, to produce large amounts of bacteriorhodopsin specially altered for solar cells and capable of generating electricity directly or producing hydrogen for fuel and oxygen to breathe. Such a system would even work in an oxygen-free environment, Lewis notes.

**Understanding the Earth's Interior**

Except in science fiction, no one has journeyed to the center of the Earth and even as powerful a source of x-rays as CHESS cannot produce a picture of this planet's mysterious interior. But Cornell geologists are using CHESS to do the next best thing, to examine changes in materials that constitute the Earth's interior under the simulated ultra-high pressures and intense heat of a laboratory's diamond anvil cell. Professor of Geological Sciences William Bassett squeezes microscopic samples of iron and iron alloys (the materials believed to constitute the core), oxides of iron and magnesium and silicates of iron and magnesium (constituents of the mantle) between parallel faces of diamonds while the sample is heated with a resistance heater or laser beam. Utilizing diffraction techniques at CHESS, Bassett and his associates are able to watch changes as they occur in the crystalline structure of the materials, behaving as they might in the interior of the Earth.

With conventional x-rays sources, the same experiments require exposures ranging from two days to as long as 40 days. During such drawn out procedures, the anvil's diamonds can crack or oxidize and metal parts can deform. At CHESS, the experiments can be performed in a matter of seconds and a whole series of patterns showing changes in crystal structure can be made in an hour.

Findings from the research may help answer such questions as: What are the ratios and arrangements of materials in the Earth's core and mantle? How does the core convect? How does the mantle con-

vect, and to what depth? How did iron settle to the core when the Earth was formed from a nebular cloud of dust and gases? Where did the Earth's oxygen and water come from?

Anything that is learned about the convection processes in the core and mantle can be expected to increase our understanding of the mechanisms behind plate tectonics — the movement of giant slabs of the Earth's crust — and of the phenomena which plate tectonics produce, including volcanos, mountain building and earthquakes.

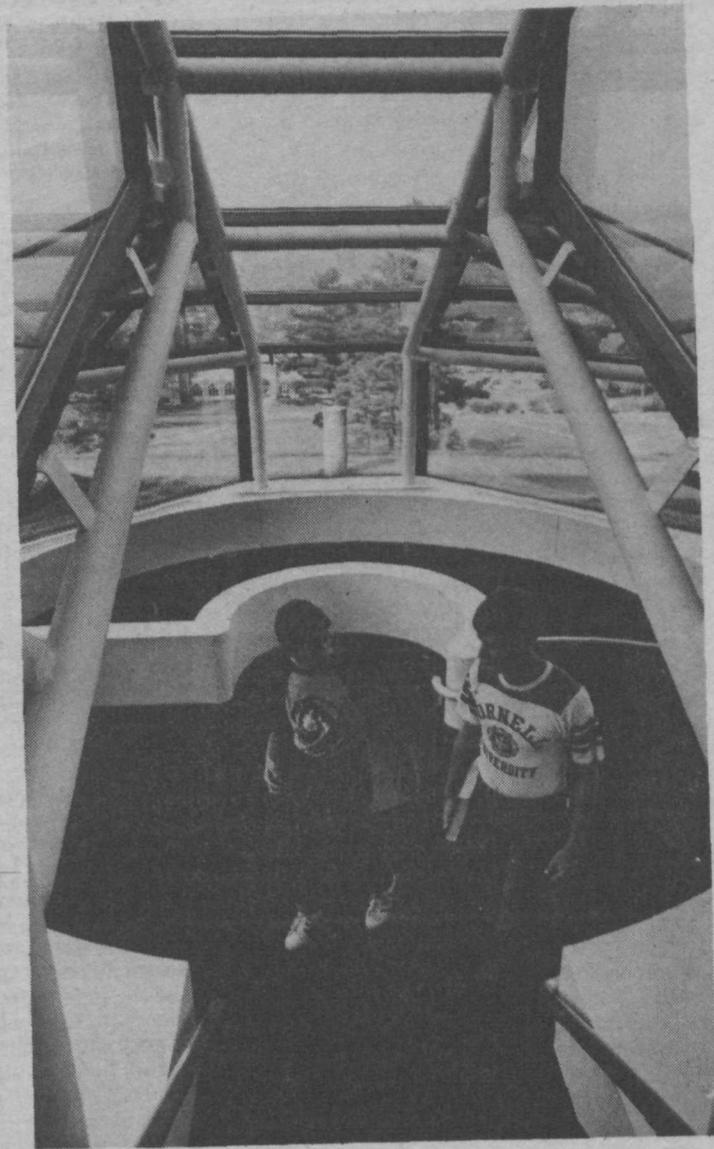
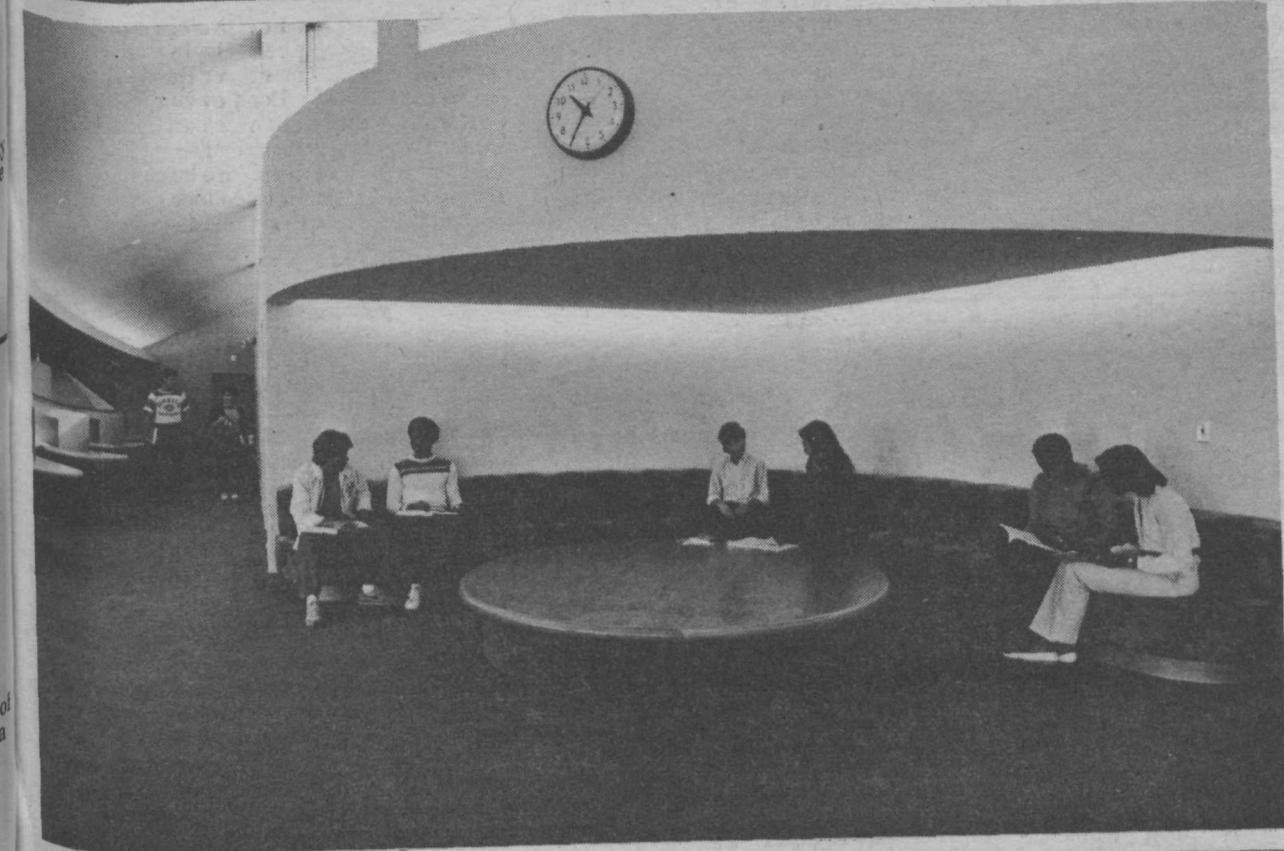
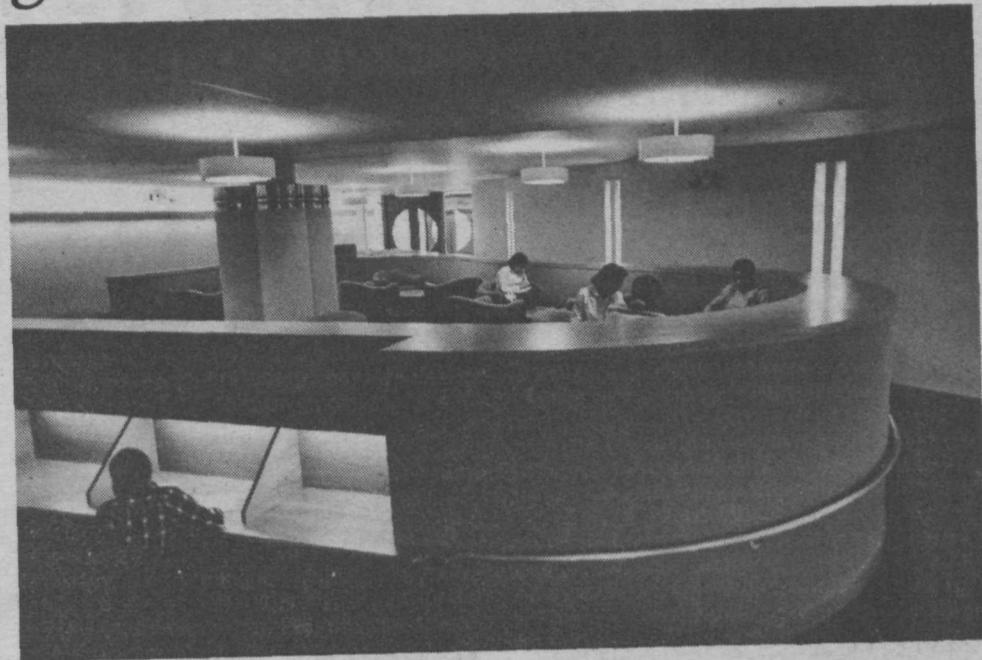
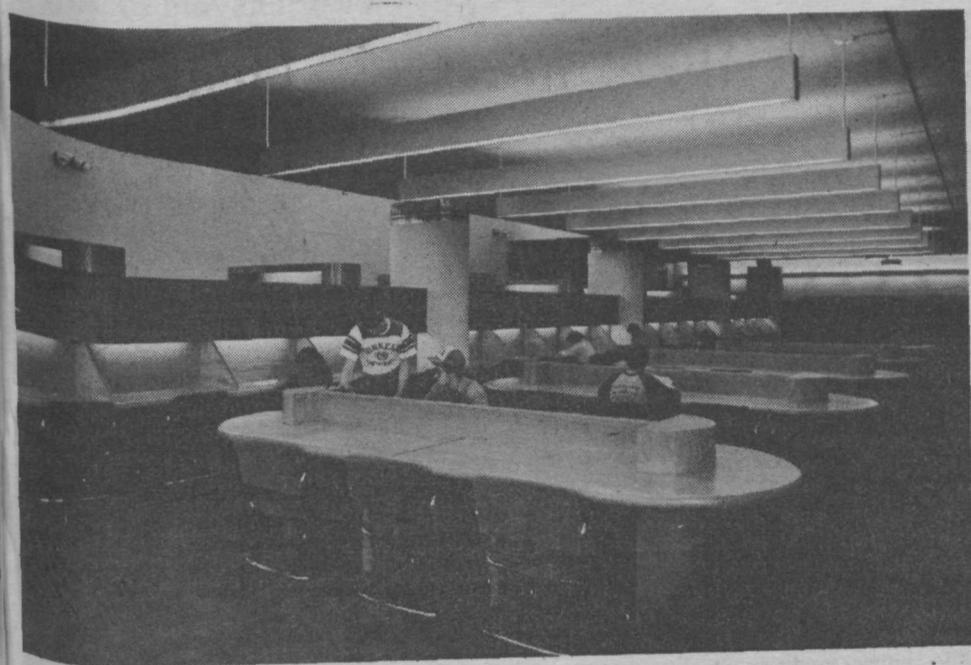
**Diffraction in a Fleeting Moment**

Electrical engineers knew the technique of laser annealing (to restore the structure of silicon devices after doping by ion-implant manufacturing procedures) worked well, but one question remained: Does the silicon melt, even momentarily, when hit by the laser? Together with researchers from the Oak Ridge National Laboratories, CHESS Staff Scientist Dennis Mills devised an experiment to answer the question. Using x-rays from CHESS, they were able to measure the temperature of silicon in a chip only 15 nanoseconds after laser annealing. It was the first time that nanosecond resolved x-ray diffraction had been demonstrated.

"There are still two competing theories, one that the silicon doesn't melt and one that it does," Mills acknowledges, "and the controversy is still there. We think it melts."

Other researchers are interested in learning why some heavy metals, such as lead or mercury, are poisonous to the human body while others, such as gold or platinum for certain forms of cancer, are beneficial? Or how small amounts of rhodium in naturally occurring crystals called zeolites function as a catalyst in the production of synthetic gas? Or what stereochemical changes regulate the oxygen-carrying action of hemoglobin?

# Some Scenes in New Underground Reading Room



## ***New Facility Tied to Old With Colors and Designs***

Continued from Page 1  
has included eliminating the reserve circulation desk, simplifying the traffic pattern through the library by doing away with confusing passways and steps, installing new rugs and chairs and new paint. The new carpet and

matching upholstery are rust-brown, a color taken from the original design of the building and are an aesthetic link between the new addition and the old library.

Construction of the addition was done by the William E. Bouley Construction Co., Auburn.

## Brief Reports

### Bridge Designer Menn Will Lecture Sept. 29

Christian Menn, considered one of Europe's leading designer of bridges, will give a public lecture at 4:30 p.m. Wednesday, Sept. 29, in Hollis E. Cornell Auditorium of Goldwin Smith Hall.

His talk, titled "Aesthetic and Functional Evolution of New Swiss Bridge Forms," is being sponsored by the Committee on University Lectures.

A number of Menn's bridge designs were exhibited at Herbert F. Johnson Museum of Art at Cornell in the fall of 1979. The goal of the exhibit was "to show what one contemporary bridge designer has been able to create under the economic conditions existing today."

After receiving his doctorate in structural engineering in 1956 at the Federal Technical University in Switzerland, his homeland, Menn worked in Paris on the Unesco buildings designed by Pier Luigi Nervi. He returned to Switzerland in 1957, and in June of that year opened his own office in Chur.

In the years that followed, he designed numerous bridges and buildings, mostly in the Graubunden, and he won first prize for many bridge competitions in all of Switzerland.

### Recreation Club's Trip To Buffalo Is Still On

The Cornell Recreation Club's Oct. 3 trip to the Buffalo Bills-New England Patriots game is still on. If the game is not played because of the NFL strike, the trip will be canceled and all fees refunded.

Tickets may be bought at the club's office, 165 Day Hall. For reservations and information, call 256-7565.

### CAU Offers Weekend For Bird/Nature Lovers

Cornell's Adult University is offering a weekend in October at Cape May on the New Jersey shore for bird and nature enthusiasts.

"Birds Over an Autumn Beach" will be held Oct. 14-17. Cornell faculty members Richard B. Fischer, professor of environmental education, and Charles R. Smith, assistant director of the Laboratory of Ornithology, will be joined by John Bull of the American Museum of Natural History and Anne Galli of the Wetlands Institute as they offer a number of lectures and field trips. Topics to be covered will include salt marsh ecology and migration patterns of waterfowl, shorebirds, and hawks.

Tuition for the weekend is \$220 per person which includes lodging and all meals. For further information and/or to make a reservation, call the CAU office at 256-6260.

### James Fowler To Talk On Faith Development

James W. Fowler, director of the Center for Faith Development and professor of theology and human development at Emory University, will give a free public lecture at 4 p.m. Tuesday, Sept. 28, in the Founder's Room, Anabel Taylor Hall. Fowler will speak on "Spending Our Singular Lives: Vocation, Destiny and Human Development."

Fowler is a 1962 Phi Beta Kappa graduate of Duke University. He received a B.D. degree magna cum laude from Drew Theological Seminary in 1965 and his Ph.D. in religion and society from Harvard University in 1971. He also did post-doctoral study in the Center for Moral Development at the Harvard Graduate School of Education in 1973.

Before going to Emory, Fowler taught at Harvard Divinity School and Boston College. He is considered the leading figure in developmental studies of faith and is highly regarded as a psychologist of religion.

His theories of faith development were formed in response to the work of Kohlberg, Erikson and Piaget as their developmental studies were correlated with the thought of religious thinkers such as Paul Tillich and H. Richard Niebuhr, according to Ingrid Olsen-Tjensvold, assistant director of Cornell United Religious Work.

### Student Assembly Pulls Its Support of IPAC

At its meeting Tuesday afternoon, the Student Assembly passed a resolution to withdraw Student Assembly support for the Investment Proxy Advisory Committee.

IPAC is staffed by faculty, staff, student and alumni members and serves as an advisory panel to the Investment Committee of the Board of Trustees.

In withdrawing its support, the Student Assembly voted to abolish the IPAC Student Advisory Committee; refuse to staff or in any way assist in the staffing of the two student seats on IPAC and will, through the Student Priorities Committee, investigate alternatives to the advisory group.

The value of IPAC has been questioned partly because of the rejection last spring by the Investment Committee of a recom-

mendation by IPAC to vote against management on a Xerox shareholder's resolution.

### Student Insurance Waiver Deadline Is Sept. 27

Waivers for those students who do not want to be covered by Cornell's Accident and Sickness Insurance Plan must be submitted to the Student Insurance Office in Gannett Health Center no later than Monday, Sept. 27.

All students who are registered full-time and in absentia for the fall semester are automatically enrolled.

Waiver certificates are available at the Student Insurance Office.

### Chimes Music Contest Is Open to All

Anyone interested in arranging or composing a musical piece to be entered in the first Cornell Chimes Music Competition is invited to attend a meeting at 12:15 p.m. Sunday, Sept. 26, at the top of McGraw Tower.

There will be \$25 prizes awarded for the best arrangement and for the best original composition. Honorable mention awards will also be presented.

A list of contest rules and tips on arranging for the chimes will be available at the base of McGraw Tower. Entries are due by Friday, Oct. 29, in 313 Day Hall. For further information call Beth Cook, chimesmaster, at 257-0743.

### The Week in Sports

## Heavy Activity This Weekend

Four teams open up their respective schedules while the remainder of the squads continue their action this weekend on the Cornell sports scene. Opening their 1982 campaigns are the freshman and lightweight football teams, and the women's cross country and volleyball squads.

The varsity football team is home this weekend to take on Colgate, while the men's cross country team plays host to Syracuse on Friday. Hitting the road this weekend for competition are the men's soccer team and the women's tennis, soccer and field hockey teams.

The varsity football team will be looking to rebound from last Saturday's tough 41-36 loss to Princeton as it goes up against Colgate. The Big Red nearly staged a miraculous comeback against the Tigers, scoring 19 points in the fourth quarter to take the lead at 36-34 after having fallen behind 34-17 in the third quarter. But Princeton was able to pull out the victory, scoring the winning touchdown in the final 54 seconds of play. Junior tailback Derrick Harmon had a brilliant afternoon for the Red, gaining 129 yards on 22 carries. Senior quarterback Jeff Hammond ran for two touchdowns and threw for another.

Colgate is 2-0 in 1982 with victories over the University of Connecticut (31-17) and Lehigh (21-14). The Red Raiders have an outstanding quarterback in sophomore Steve Calabria, while tailbacks Rich Erenberg and Stacy Hall rushed for 123 and 111 yards, respectively, against Connecticut.

The men's soccer team will be at the prestigious Loyola Tournament in Baltimore this weekend, participating along with the University of Massachusetts, Vanderbilt and Loyola College of Baltimore. The Big Red lost its season opener to Princeton on Friday, 2-1, as the Tigers scored the winning goal in the final 17 seconds of the contest.

The women's volleyball team, 47-6-1 a year ago, opens its season at the Albany Invitational where the squad is the defending champion. One senior and three

sophomores should prove to be the Big Red's key performers this fall—senior co-captain Maggie Curry and sophomores Elise Lincoln and Pam Orsi.

The freshman and lightweight football teams begin their seasons on Friday. The frosh play Colgate away at 3 p.m. The frosh defeated the Red Raiders a year ago in the season opener, 16-7. The Cornell lightweight football teams entertains Pennsylvania at 7:30 that evening at Schoellkopf field. The Big Red lightweights should challenge for the Eastern Lightweight Football League title again this fall. Tailback Rich Kirkland heads up the backfield, and senior Greg Merchen and sophomores Paul Freeman and Mike Gailor all saw playing time at quarterback last year. The receivers are led by senior Mike Quinzi, who will also handle the placekicking chores.

The men's and women's cross country both take on their Syracuse University counterparts Friday afternoon at the Moakley Course, with the races beginning at 5:15 p.m. The men opened their season last Friday with an impressive 15-50 sweep of Colgate, as Cornell placed the first 11 runners across the finish line. Freshman Grant Whitney led the way with a first-place finish, and was followed by junior Harv Robinson and senior Jim Paige. This is the season opener for the women, and they should be led by sophomores Nancy Schmidt, Margie Coffin and Amy Phelps.

The Big Red women's field hockey and soccer teams both play Ivy opponents on Saturday. The field hockey team is at Dartmouth while the soccer team travels to Yale. The field hockey team took a 1-1 record into Wednesday night's game with Cortland, while the soccer squad lost its opener to Princeton (3-0) and played at Hamilton on Tuesday.

The women's tennis team is scheduled to compete at the Syracuse Invitational this weekend. The Big Red began its season on Tuesday with a dual match against Binghamton.

### SAGE CHAPEL

### Olsen-Tjensvold to Talk At Sunday Convocation

Assistant Director of Cornell United Religious Work Ingrid Olsen-Tjensvold will speak at the 11 a.m. Sunday, Sept. 26, Sage Chapel Convocation. Her sermon topic will be "E.T., Jesus, and Harry Stack Sullivan."

Olsen-Tjensvold received an A.B. degree from Radcliffe College in 1967 and has done graduate study in religion, theology, culture and philosophy at Syracuse, Princeton and Harvard Universities. She is the recipient of various fellowships and awards including the Isobel L. Briggs American Fellowship for an Outstanding Radcliffe Alumna.

In 1978, she received her doctorate from Syracuse after completing a dissertation on "Response to Creation: Christian Environmentalism and the Theology and Ethics of H. Richard Niebuhr."

### Spiroplasmas Is Topic Of 9th Dimock Lecture

"Spiroplasmas," a new group of organisms that attack some of the major agricultural crops, is the topic of the ninth A. Watson Dimock Lecture scheduled for 8 p.m. Thursday, Sept. 30, in 101 Bradford Hall.

Robert E. Davis, research plant pathologists with the Agricultural Research Service in the U.S. Department of Agriculture and the discoverer of this group of disease-causing organisms, is the speaker. The lecture is free and open to the public.

Internationally known for his discovery several years ago, Davis is a member of the USDA's Plant Virology Laboratory in Beltsville, Md., where he conducts basic research on spiroplasmas and mycoplasmas, among other organisms.

### Author Will Discuss Meanings of Vietnam

Author John DelVecchio, whose book "The 13th Valley" received critical acclaim in the New York Times, will discuss "You, America and Vietnam" in a free public talk at 8 p.m. Tuesday, Sept. 28, in the Memorial Room of Willard Straight Hall.

Panelists on the program with him will be John Lee Smith, dean of students in the Law School, and Martin Bernal, associate professor of government.

DelVecchio will be discussing the lessons of Vietnam and their applications to the problems of today and the future.

### Report Printed Separately

Last week it was announced here that the first report of the Board Study Committee, the committee named to study the makeup of the Board of Trustees, would be printed in the Chronicle this week.

At its meeting last Thursday, the committee decided to print the report separately instead, so that copies made available to the public would contain all appendices. This would not have been possible in the four-page Chronicle insert that was planned.

These copies of the report, under separate cover, will be available for reference at the reference desks of Olin, Uris and Mann Libraries. Individual copies may be obtained at the News Bureau office, 110 Day Hall.

Questions or comments may be addressed to Board Study Committee, 451 Day Hall.