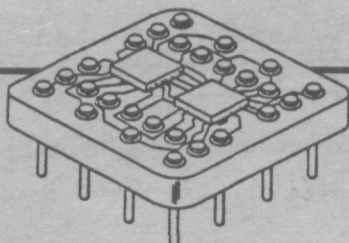


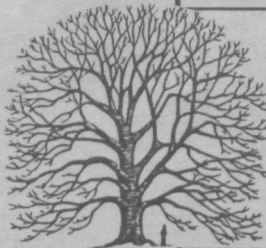
Cornell CHRONICLE

Volume 20 Number 30 April 27, 1989

3



Electronic packaging



Cornell Plantations

Spring Supplement

7



Integrated Pest Management



Chris Hildreth

ATTACK OF THE GIANT CORN PUFFS — Ithaca High School student Katie Commiskey feeds corn puffs produced in Cornell's food science laboratory to fellow student Shawn Kimberly. The two were among more than 100 area high school students who toured Cornell research facilities on April 25 as part of National Science and Technology Week. The students, from high schools in Candor, Dryden, Ithaca, Lansing, Newfield, South Seneca and Trumansburg, learned about research ranging from homing pigeon navigation to earthquakes.

Area's first black woman priest to be ordained in Sage Chapel

When Beverly Tasy was 8 or 9 years old, she used to imitate the priest behind his back at Calvary Episcopal Church in Utica, N.Y., while her relatives "were shushing me and trying to sit me down," she recalled.

On May 1, she will be surrounded by Episcopal priests who will place their hands on her head while the Right Rev. O'Kelley Whitaker, bishop of Central New York, says these words: "Therefore, father, through Jesus Christ your son, give your holy spirit to Beverly, fill her with grace and power, and make her a priest in your church."

At that moment, the Rev. Beverly Ann Moore Tasy will become the first black woman to be ordained as an Episcopal priest in the Diocese of Central New York. In addition, her ordination will be the first such service held in 114-year-old Sage Chapel.

Cornell, founded in 1865 as a non-sectarian institution, is the only Ivy League university that has neither a college nor a department of religion or theology. But only eight years after the university's founding, construction was started on a red brick, Gothic-style chapel designed by architecture Professor Charles Babcock — who also was an Episcopal priest.

Sage Chapel was dedicated on June 13, 1875, and was used for years by the congregation of St. Paul's Episcopal Church, of which Babcock was the rector. It continues to be the home of weekly ecumenical services.

To the best of anybody's recollection, an ordination has never been held in Sage Chapel, not because of any university policy but because ordination ceremonies usually

Continued on page 8

Plans under way to trim budget

Meetings involving university budget officials, deans and division heads are under way to establish in detail how some \$4 million is to be cut from the 1989-90 endowed, general-purpose budget.

While a state budget approved last week by the Legislature brightened the outlook for Cornell's four state-supported colleges, the need for budget cutting is essentially unchanged on the privately supported side of the university, according to Malden C. Nesheim, vice president for planning and budgeting.

The endowed budget supports the College of Architecture, Art and Planning, College of Arts and Sciences, and College of

Engineering, as well as research centers, libraries at the privately supported colleges, undergraduate and graduate student financial aid, student services and central administration.

In February, Provost Robert Barker wrote to the faculty that projected revenues appeared to be \$4 million short of the projected expenditures of \$231.8 million for the year that will start July 1.

He noted that most income sources were flat — an exception is tuition, which is scheduled to rise by 6.9 percent — while expenses were rising sharply for such items as salaries, stipends, student financial sup-

Continued on page 8

Discovery may lead to longer shelf-life of ripened tomatoes

Biochemical clues from an obscure Brazilian tomato has led Cornell plant scientists to a treatment that doubles the time ripe tomatoes retain top eating and storage quality.

Cornell has applied for a patent on the inexpensive process that extends the shelf life of vine-ripened-flavor tomatoes from 4 to 5 days to 10 to 12 days.

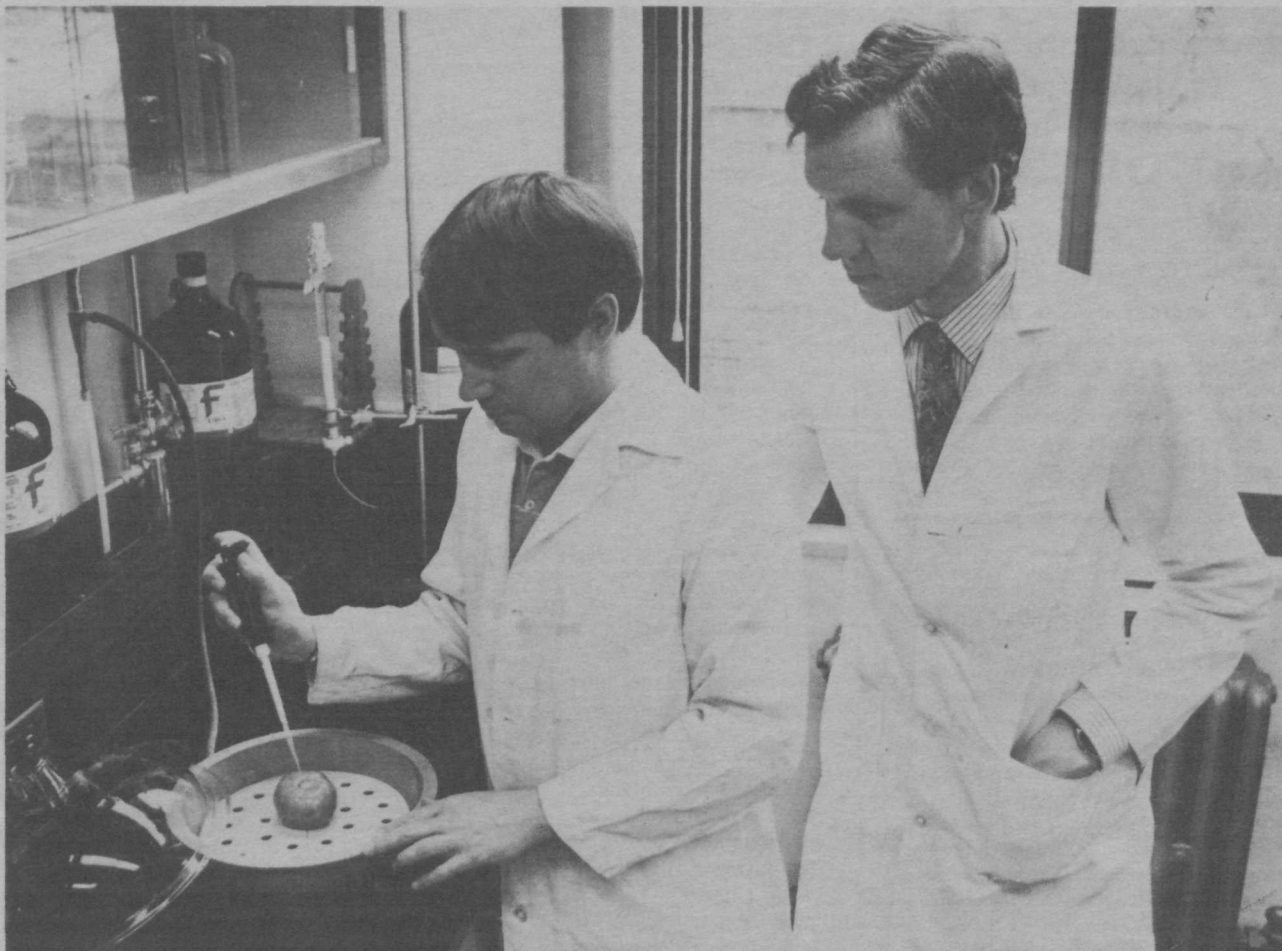
The process could be an enormous boon to the nation's \$1 billion fresh-tomato industry, because it offers processors and shippers enough time to market the ripened fruit and allows supermarket operators to hold ripe tomatoes in top condition until sold. Currently, tomatoes are picked while still green, which diminishes their flavor.

The project's director is Peter J. Davies, a professor of plant physiology in the College of Agriculture and Life Sciences who is on the faculty of the Section of Plant Biology in the Division of Biological Sciences.

The method thus far has worked successfully in laboratory-scale tests performed by David M. Law, a research associate on the project, but whether it will work under large-scale commercial conditions remains to be seen. A large commercial company recently signed an agreement with Cornell to evaluate the technique.

The process uses naturally occurring chemicals called polyamines to slow the ripening process of the fruit, Davies explained. "We simply increase the level of polyamines that are already in the fruit, thus preventing the ripe fruit from becoming soft too quickly," he said. Contrary to current commercial practice, the Cornell method calls for picking the fruit after it begins to ripen on the vine, signalled by

Continued on page 8



Jill Peltzman

Research associate David M. Law, left, and Peter J. Davies, professor of plant physiology, add a minute amount of a naturally occurring polyamine to a ripe tomato to double the time it will retain top eating and storage quality.

Notables

Herbert B. Voelcker, the Charles Lake Professor of Mechanical Engineering, visited Hong Kong in April as the 1989 Distinguished Visitor of the Hong Kong Association for the Advancement of Science and Technology. He gave a lecture on "Historical Perspectives on the Automation of Manufacturing," and conferred informally on two other occasions with working groups of HKAAST. Also, on April 13 Voelcker lectured on the subject of computer applications in manufacturing at the 1989 International Computer Conference organized by the Hong Kong Computer Society.

Carl F. Gortzig, a professor in the Department of Floriculture and Ornamental Horticulture, has been named the eighth recipient of the New York State Gold Medal of Horticulture. Gortzig's name will be inscribed in the Horticultural Court of Honor at the New York State Fairgrounds in Syracuse, in recognition of his contributions to New York's horticulture.

6 faculty members win Guggenheim fellowships for '89

Six scholars and scientists on the faculty have been awarded 1989 Guggenheim Fellowships.

They were among 198 artists, scholars and scientists selected for the awards from among 3,144 applicants in the John Simon Guggenheim Memorial Foundation's 65th annual competition. The awards, considered among the most prestigious in the nation, totaled \$5.251 million this year.

The Cornell recipients are:

- Walter F. LaFeber, the Marie Underhill Noll Professor of American History, for the study of foreign affairs and the American Constitution since the 1780s.

- Jean N. Locey, photographer and associate professor of art, for photography.

- Richard Van Evera Lovelace, professor of applied and engineering physics, for work in magneto-hydrodynamic flows in astrophysics.

- Roger L. Parker, associate professor of music, for analytical essays on Verdi and Puccini.

- Katharine Boynton Payne, a research associate at the Laboratory of Ornithology, for work on the infrasonic calls of elephants.

- Stuart L. Shapiro, professor of astronomy and physics, for studies in computational astrophysics and general relativity.

Also selected were Ithaca resident David Lehman, a poet, essayist and critic, who has edited books published by Cornell University Press, and choreographer Elizabeth Streb, who visited Cornell as a guest artist last fall.

Cornell Chronicle

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It is the policy of Cornell University to support actively 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 that will assure the continuation of such equality of opportunity.



Mario Baeza



Dale Rogers Marshall

Gustav Freedman

Alumni choose two trustees

Attorney Mario L. Baeza, Class of '71, and educator Dale Rogers Marshall, Class of '59, have been elected to the Board of Trustees by the alumni.

Their four-year terms begin on July 1.

Baeza is a partner in the New York City-based international law firm of Debevoise and Plimpton, specializing in mergers and acquisitions, leveraged buyouts, corporate finance and securities law.

He is a member of the University Council's Student Aid Committee, the Deans' Advisory Council of the College of Arts and Sciences, the Steering Committee of Alumni Leaders, the Task Force on Women and Minorities and the Cornell Black Alumni Association.

Marshall is dean and professor of political scientist at Wellesley College in Wellesley, Mass., and was acting president during that college's president's sabbatical year.

She is currently a trustee fellow, a non-voting position created as the Board of Trustees pared its number from 62 to 42 members over the past few years. She was alumni trustee from 1983-88 and during that

time was vice chairwoman of the academic affairs committee and served on the development committee. She also is national chairperson of the Cornell Fund, an annual alumni fund-raising program.

In the election to the board this year, some 25,540 ballots were cast from among 134,423 alumni, which is slightly less than last year, according to Marisue Taube, associate director of club programs in Alumni Affairs.

Baeza and Marshall were chosen from among four candidates on the ballot. They each received more votes than either Peter Hearn, Class of '56, a partner in the law firm of Papper, Hamilton and Scheetz, and Sanford I. Weill, Class of '55, chief executive officer of Primerica Corp.

All four were endorsed by the Committee on Alumni Trustee Nominations of the Cornell Alumni Association.

Outgoing alumni members of the board are John P. Neafsey, Class of '61, B.M.E. '62, M.B.A. '63, and Benson P. Lee, Class of '63, B.E.E. '64.

—Carole Stone

Gurowitz outlines parking plan, hears advice at Vet College

Ongoing discussions around campus about parking continued on April 25 when Vice President for Campus Affairs William D. Gurowitz outlined the proposal to improve campus traffic, transit and parking next year to about 200 people during a noon-time meeting in the Veterinary College complex.

The proposal, part of a five-year transportation plan, will add at least 600 parking spaces on or near the campus, including a greater number of short-term parking spaces in central campus, and will increase the fees for parking.

Details of the proposal were reported in the April 6 Chronicle.

"Contrary to some opinions, this plan is not final," Gurowitz stressed. "This is not a done deal."

He said he has been seeking advice at meetings with a large number of campus groups for the last several months, and "we're still seeking advice."

In December, he sent a letter to all faculty and staff alerting them that the campus's parking and transportation master plan was to be updated during the spring and soliciting campus input.

Among the advice he received from his April 25 audience:

- Parking fees should not be based solely on where one parks but on a sliding scale based on an employee's salary.

- Because an "extraordinary number" of student cars heighten traffic congestion problems, students should not be allowed to have cars on campus.

- The university, not employees' parking-permit fees, should pay for improvements and maintenance of roadways and parking facilities.

Members of the audience in James Law Auditorium also questioned why the proposal calls for B Lot to become a paid lot while a new, free lot is constructed at East Hill Plaza.

Gurowitz responded by saying that two-thirds of the people parking in B Lot work

in the Veterinary College complex and therefore park for free near their work site, while others around campus must pay to park near where they work.

The proposal would make the campuswide parking arrangements more equitable, he said.

But several members of the audience disputed his contention that two-thirds of the B-Lot parkers work at the Vet College. "The shuttle buses [to central campus] are full every morning," one person said.

Another said that, because the Vet College is a medical facility that performs surgeries at 6 a.m. and 8 p.m. and must respond to emergencies on farms, "We don't have half an hour to [ride a bus to] get our cars."

Individuals and departments can present any special parking needs to the Special Requests Appeals Board, a committee of faculty, staff and students that can provide special arrangements for parking, Gurowitz said.

He added that it is necessary to increase the number of people who pay to park and to raise the fees for parking permits to help generate part of the almost \$1.4 million needed to fund the transportation system.

Of that, \$810,000 will come from parking fees and fines and \$575,000 will come from a 2 percent tax paid by units financing campus construction projects, he said.

Most people agree that both the university and the users of roads and parking facilities should help pay for them; the question is finding the "proper balance," Gurowitz said.

The University Assembly was scheduled to discuss the recommendations of the Committee on Transportation Services Wednesday afternoon. The University Assembly is to make a recommendation to President Frank H.T. Rhodes, Gurowitz said.

A proposal probably will be presented to the Board of Trustees in late May, Gurowitz added.

—Mark Eyerly

Briefs

■ **MacForum:** The second annual MacForum will be May 10 at the newly renovated Statler Hotel and Conference Center. Co-sponsored by Apple Computer and Cornell, the forum will give faculty and staff an opportunity to see Apple products used in demonstrations of faculty-authored software as well as demonstrations of new products from Apple and other vendors. The demonstrations will run from 9 a.m. to 4 p.m. There will also be two concurrent 45 minute break-out sessions running throughout the day, traditional Apple wine and cheese tasting at 4 p.m., and a drawing for a Macintosh computer.

■ **Photo symposium:** The Third Annual Arthur S. Penn Photography Symposium will be held on April 28, beginning at 9 a.m. in Olive Tjaden Hall auditorium. Open to the public, the all-day event is titled "Cross-currents: Art Images/Commercial Images" and will explore artists' appropriation of images from popular culture and the effect of popular culture on contemporary art.

Robert Sobieszek, director of photographic collections at the International Museum of Photography at George Eastman House in Rochester, will deliver the keynote address. Other speakers in the program will include Marvin Heiferman, Timothy C. Murray, Brian Wallis and Pat Ward Williams.

■ **Black theater:** The Black Theater Workshop of the Africana Studies and Research Center will present a double bill of performances in Anabel Taylor Auditorium of the play "For Colored Girls who have Considered Suicide when the Rainbow is Enuff" by Ntozake Shange and selected scenes from "A Soldier's Play" by Charles Fuller. Admission is free to the two performances scheduled for April 30 at 1:30 p.m. and May 1 at 8 p.m.

■ **Bloodmobile:** The Red Cross Bloodmobile will take donations May 1 between 10 a.m. and 3:45 p.m. on the third floor of Noyes Center.

■ **Breakfast with Rhodes:** A limited number of places are available for students to sign up for breakfast with President Frank H.T. Rhodes. His office's telephone number is 255-5201.

The breakfasts are held from 7:30 to 8:30 a.m. in the Elmhurst Room of Willard Straight Hall at various times during the year. Reservations are made on a first-come, first-served basis.

■ **Meals with Morley:** The final meal this semester for employees to meet with Senior Vice President James E. Morley Jr. will be a 7:30 a.m. breakfast on May 17 at Statler Inn. Employees may call the Office of Human Resources at 255-3621 for a reservation.

Sol Linowitz to give pre-commencement convocation speech

Former U.S. Ambassador Sol M. Linowitz, a 1938 graduate of Cornell Law School and a former chairman of Xerox Corp., will give the pre-commencement convocation address on May 27 at 1 p.m. in Bailey Hall.

The university's 121st commencement will take place the following day at Schoellkopf Field, with President Frank H.T. Rhodes giving the commencement address, in accordance with university tradition.

The Class of 1989 Council invited Linowitz to speak to the graduating class at the convocation. Last year's speaker was psychologist Joyce Brothers, a 1947 graduate.

Linowitz has combined three careers as a lawyer, businessman and diplomat. Today he is senior counsel of the international law firm of Coudert Brothers and chairman of Pan American World Airways International Advisory Board.

From 1979 to 1981, Linowitz served as the personal representative of President Carter at the Middle East peace negotiations and earlier as co-negotiator of the Panama Canal treaties, both times with the rank of ambassador. Also, in 1966-69, he was U.S. ambassador to the Organization of American States.

IBM-Cornell book details electronic packaging technology

Revolutionary advances in microelectronics over the last two decades — with more and more circuits crammed onto tiny silicon chips — have brought major challenges to the technology modestly known as electronic packaging.

The complexities of building structures to contain the microchips are covered in a newly published textbook that is a joint effort of International Business Machines Corp. and Cornell.

On May 2, IBM, Cornell and other university scientists and engineers will join in a two-day conference on electronic packaging at IBM's facility in Endicott, N.Y., to mark the publication of the pioneering college text, "Principles of Electronic Packaging."

The 1000-page book, published by McGraw-Hill Publishing Co., is aimed both at college students and at scientists and engineers specializing in electronic packaging and materials science. Royalties on the book's sales are being donated to Cornell.

"This book is a first of its kind," said Patrick A. Toole, IBM senior vice president and general manager of technology prod-

ucts. "And it fills a vital need for a comprehensive, yet practical, treatment of electronic packaging and related sciences for college students." Toole wrote the book's foreword and is co-author of one of the chapters.

"This book represents an important first step toward establishing electronic packaging as a recognized discipline in undergraduate education," said one of the book's editors, Che-Yu Li, a Cornell professor of materials science and engineering.

"To me, it's particularly exciting that engineers in the industry, especially at IBM, who are among the field's leaders, have made this effort to write an undergraduate textbook," he added.

For any computer to work, each tiny microchip in it must be, for example, protectively nestled on a plastic, composite or ceramic chip carrier — a carefully engineered holder for the chip. This carrier contains hundreds of tiny metal interconnects that feed power to the chip and transfer data in and out. The carrier also must remove chip-killing heat, and the interconnects must

withstand the strains of thousands of cycles of thermal expansion and contraction.

The hierarchy of electronic packaging also includes the computer card that carries the interconnected array of chip carriers. These cards, in turn, are plugged into a larger board that interconnects them.

Engineering electronic packages means attacking problems of electrical, thermal and mechanical design. Designing the packages also means using materials including organic polymers, metals and ceramics.

So important are these structures that about 65 percent of the cost of a mainframe computer is electronic packaging.

The IBM-Cornell book required the work of 50 chapter authors to cover the field's breadth. The book's editors are Donald P. Seraphim, IBM Fellow and consultant; Ronald C. Lasky, advisory engineer at IBM, Endicott, N.Y.; and Li.

The book also covers topics such as fiber optic link packaging and such manufacturing processes as robotics and automation and the factory of the future.

The book arose from a five-year partner-

ship between IBM and Cornell in a course in electronic packaging for IBM engineers and Cornell students. The course, believed to be the first such university-industry collaboration of its kind, consisted of weekly lectures by IBM scientists and engineers and Cornell faculty.

Cornell faculty who participated in writing the book and who will deliver talks on May 2 are Li, materials science and engineering Professor James Mayer, electrical engineering Professor Peter Krusius and materials science and engineering Professor Edward Kramer. Materials science and engineering Professor Rishi Raj also was a co-author of the book.

Cornell is among the country's leaders in electronic packaging research, with sponsors including the Semiconductor Research Corporation, the National Science Foundation, the U.S. Army, IBM and other corporations. These studies are carried out in the SRC Packaging Science Program, Cornell's Materials Science Center and Cornell's Ceramics Program.

—Dennis Meredith

Piaf to close '88-'89 season at Arts Center

"Piaf," a story with music about the life of French chanteuse Edith Piaf, will be the last production of the season at the Center for the Performing Arts. Show times are May 3, 4 and 5 at 8 p.m. and May 6 at 5 and 9 p.m.

All the major events of Piaf's life are included in Pam Gems' story: Piaf's rise, her love affairs, her abuse of drugs and alcohol and her breakdowns. Between the scenes are songs she made famous.

Andre Ernotte, who has directed for theater, film and television, is the guest director.

Ernotte has directed dozens of productions for major theaters, including "My Gene" with Colleen Dewhurst at Joseph Papp's Public Theater and at the Kennedy Center in Washington, D.C., and "Richard III" with Michael Moriarty at the Kennedy Center and Stratford.

For Cornell's Theater Arts Department, Ernotte has directed the preview of Polly Pen's new musical and a reading of the Heermans-McCalmon Playwriting Awards.

Resident professional theater associate Maria Porter stars as Piaf. Her previous roles with the Theater Arts Department were the princess in "Love's Labour's Lost," the prince in "Cinders" and Soot Hudlocke in this season's "The Marriage of Bette and Boo."



Patricia Reynolds

Maria Porter stars as Edith Piaf in Pam Gems' musical story, to be performed at the Center for the Performing Arts, May 3 to 6. At the piano is Helen Gregory.

She has an M.F.A. from the University of California, San Diego, and has performed with the Milwaukee Repertory Theater and Japan's Suzuki Company, and was seen as Gladys in the Hanger Theater's "Pajama Game" last summer.

The show's supporting cast of 15 actors — many playing two or more roles — include resident professionals Kenton Benedict, Michael Stacy, Kate Levy and Harvy Blanks; students Sophie Ahsen, Edgar Francis IV, Paul Gutrecht, Lara Hanlon, Kevin Hicks, Elizabeth Payne,

Andrew Stigler, Scott Varley and Lewis Wheeler; and Peter Saul, a member of the dance faculty.

Costume design is by Judith Johnson, lighting by Patrick Gill, scenic design by Jill Moon, and sound by Chuck Hatcher. The show will be performed in the Class of '56 Flexible Theater.

Single tickets go on sale April 28. Prices range from \$3.50 to \$5.50 and are available by calling the center's box office from 11:30 a.m. to 5:30 p.m., Monday through Friday, at 254-ARTS.

Baughan resigns; Fouts named football coach

Maxie Baughan, head football coach since 1983, resigned on April 25 and was replaced the next day by Jack Fouts, who has been the team's offensive line coach since 1984.

Baughan said he had resigned, effective immediately, because of his concern that personal tensions were adversely affecting the football program.

"Despite my best efforts and those of others, it has become clear to me that the tensions which have characterized the program recently are not likely to resolve themselves soon," Baughan said in a letter to Cornell Athletic Director Laing Kennedy.

He noted the toll these tensions and "distractions that have engulfed the program" were taking on him and others associated with Cornell football and said:

"It is because I have such deep affection for the players, my fellow coaches, members of the Athletic Department and the countless alumni, faculty and staff who have helped us develop a program that all Cornellians can be proud of that I feel that I should step down."

In accepting Baughan's resignation "with sincere regret," Kennedy said: "It has been my privilege to work with you in helping to develop a truly outstanding Ivy League football program. Your decision

and your reasons for it provide yet another example of your leadership and willingness to sacrifice personal interests for the good of the team and the university you have represented so ably."

While calling the resignation "a sad day for Cornell football," Kennedy added: "I think we now can put behind us the difficulties of recent weeks and focus our attention on the brightest possible future for Cornell football. I know that I speak for everyone associated with Cornell Athletics when I pledge to you that we will do everything we can to continue the proud tradition of excellence you have nurtured."

When he announced the appointment of Fouts at a news conference on April 26, Kennedy said, "I am pleased that Jack Fouts has agreed to assume the position as our new head football coach. He brings to this post a wealth of experience as a head coach. He knows Cornell University and the Ivy League intimately, having been on our staff for five years. Jack is the right man to keep Cornell football moving forward."

Fouts said at the news conference that "I definitely feel that we can continue the momentum that has been generated in the past."

Before coming to Cornell, Fouts coached at his alma mater, Ohio Wesleyan Univer-

sity, for 20 years, amassing a record of 77-93-9. Highlights include two championships and a second-place finish in the Ohio Athletic Conference, an appearance in the Amos Alonzo Stagg Bowl in 1971 and honors as NCAA College Division Coach of the Year for District II in 1967.

Fouts was a running back and defensive back at Ohio Wesleyan, where he also played basketball and baseball. He then earned a master's degree from the University of Wisconsin.

Baughan, 50, was an All-America at Georgia Tech and was a linebacker in the National Football League for 14 years, making the all-pro team four times and the all-time best teams of the Philadelphia Eagles and Los Angeles Rams. Before coming to Cornell in 1983, he was defensive coordinator for the Detroit Lions and the Baltimore Colts. In December 1988, Baughan was elected to the National Football Foundation and Hall of Fame.

In six years at Cornell, he reinvigorated a losing program. His overall record was 28-29-2 and his Ivy League record 23-18-1. The 1986 team, at 8-2, failed by one game of winning the Ivy championship; the 1988 team tied the University of Pennsylvania for the Ivy crown, the first football championship Cornell had won in 17 years.

Cornell to appeal theft-case ruling

Cornell will ask State Supreme Court Judge William N. Ellison to overrule a jury's verdict against the university and its \$400,000 award to two Cornell employees, according to Thomas M. Santoro, associate university counsel.

The April 14 verdict against the university and two co-defendants was contrary to law and to the evidence, and the award of \$400,000 in damages was "excessive and affected by sympathy, passion and prejudice," Santoro said.

The jury found Cornell and two co-defendants guilty of malicious prosecution, false arrest, lack of reasonable cause and abuse of process against two employees.

The verdict resulted from a lawsuit filed by two Cornell employees who claimed that they were fired in 1987 because of their union activities. The two, John Cleveland, a mail courier, and Thomas Parkin, a Print Shop delivery driver, were fired for allegedly stealing university property valued at about \$60.

Criminal charges were dropped and the two employees were reinstated a week later with back pay and full benefits because of "insufficient evidence" regarding the alleged theft, according to news reports.

Cleveland and Parkin's lawsuit named as defendants Cornell; John J. Cerio, a mail service manager; and Ronald P. Mathews, then director of support services who no longer works at Cornell.

The jury, while awarding Cleveland and Parkin \$400,000, ruled against their claims that they were libeled and slandered. The \$400,000 award includes \$100,000 in punitive damages and \$100,000 in compensatory costs each to Cleveland and Parkin.



FUNNY MAN — Comedian Rich Hall, author of the best-selling Sniglets collections of words that don't exist but should, will perform in Bailey Hall on May 2 at 8 p.m. Tickets are \$9 for students, \$10 for others, and are available at Willard Straight Hall.

CALENDAR

All items for the calendar should be submitted (typewritten, double spaced) by campus mail, U.S. mail or in person to Joanne Hanavan, Chronicle Calendar, Cornell News Service, Village Green, 840 Hanshaw Road, Ithaca, NY 14850.

Notices should be sent to arrive 10 days prior to publication and should include the name and telephone number of a person who can be called if there are questions.

Notices should also include the subheading of the calendar in which the item should appear.

DANCE

Cornell International Folkdancers

Bulgarian dance workshop, April 28, 29 and 30, conference room, Biotechnology Building.

Get-acquainted party, April 28, 8 to 10:30 p.m., free; workshops 10 a.m. to noon and 2 to 4 p.m.; party, April 29, 8 p.m. to midnight with music by "Karemfil"; workshop April 30, 11 a.m. to 1 p.m., admission is \$17 or \$4.50 per session. For information, Wies van Leuken: 257-3156.

Israeli Folkdancing

Every Thursday, 8:30 p.m., Edwards Room, Anabel Taylor Hall.

Swing & Jitterbug Dancing

Every Wednesday, 8 to 10 p.m., Edwards Room, Anabel Taylor Hall. For information: 273-0126.

EXHIBITS

Johnson Art Museum

The Herbert F. Johnson Museum of Art, on the corner of University and Central avenues, is open Tuesday through Sunday from 10 a.m. to 5 p.m. Admission is free. Telephone: 255-6464.

"Professional Visions: Photographs from the Archives of the American Society of Magazine Photographers," featuring about 100 photographs that explore photography's development in the commercial art world, from April 28 through July 9.

"Gordon Matta-Clark: A Retrospective," a retrospective exhibition examining the work of the late multimedia artist Gordon Matta-Clark, a 1968 graduate of Cornell best known for projects in which he cut through existing buildings to create sculptural works of art, May 5 through June 4.

"American Art to 1945," an exhibition of 19th-century landscapes and cityscapes and 20th-century paintings and sculpture, will be on view through the end of May. Most of the works are from the museum's own collection.

Center for Jewish Living Art Gallery

Photographs mounted by Iberia Airlines, "Jewish Roots in Spain," through May 31, 106 West Ave.

Hartell Gallery

Jean Locey, associate professor of art, through April 29. The gallery is situated in Sibley Dome, open Monday to Friday, 8 a.m. to 5 p.m.

Olin Library

"The Many Faceted Dr. Fiske: A Belated Recognition," an exhibition of books, documents, letters and photographs showing the many interests and activities of Willard Fiske, Cornell's first librarian, as a student, traveller, journalist, librarian, reformer, teacher, scholar, chess player and book collector, through July 15, Monday through Friday, 9 a.m. to 5 p.m.

Tjaden Gallery

M.F.A. exhibition of work by John Klink, through April 28; Bob Perkins, April 30 through May 5. The gallery is situated in Tjaden Hall.

Uris Library

An exhibition of books and photographs about Mahatma Gandhi organized by Ved P. Kayastha, South Asia librarian and sponsored by the South Asia Program, Indian Student Association and Cornell India Association, through April 30. In conjunction with the exhibit, films will be shown. (See film listing.)

Willard Straight Hall Art Gallery

Straight Takeover 20th Anniversary exhibit through April 28.

FILMS

Films listed below are sponsored by Cornell Cinema unless otherwise noted. Most Cinema films cost \$3 and are open to the public unless otherwise stated, except for weekend films in Uris and Statler, which are \$4. An (*) means admission is charged.

Thursday, 4/27

"Pandora's Box," part 13 of "Jewel in the Crown" series, sponsored by the South Asia Program, 5 p.m., 310 Uris Library.

"Divine Horsemen: The Living Gods of Haiti" (1977), a documentary on the Voudon religion of Haiti, sponsored by Pentangle, 7:30 p.m., Uris.

"100 Children Waiting for a Train" (1988), sponsored by CUSLAR, 8 p.m., Anabel Taylor.

"The Naked Gun" (1988), directed by David Zucker, with Leslie Nielsen, Priscilla Presley and Ricardo Montalban, 9:30 p.m., Uris.*

Friday, 4/28

"Bird" (1988), directed by Clint Eastwood with Forest Whitaker, Diane Venora and Michael Zelnicker, 6:30 p.m., Uris.*

"Mahatma Gandhi," (Part I), 7 p.m. to 10 p.m., L-04, Uris Library.

"Salaam Bombay" (1988), directed by Mira Nair, with Shafiq Syed, Raghubir Yadav, 8 p.m., Anabel Taylor.*

"Imagine: John Lennon" (1988), directed by Andrew Solt, with John Lennon, Yoko Ono and Julian Lennon, 9:30 p.m., Uris.*

"The Naked Gun," midnight, Uris.*

Saturday, 4/29

"The Festivities and Honeymoon," and "Shri Ram's Title is Contested," 11th and 12th parts of a series of the video saga "Ramayan," an Indian epic, co-sponsored by University Library, South Asia Program and Southeast Asia Program, 1 p.m., L-04 Uris Library.

"Bird," 6:30 p.m., Uris.*

"Mahatma Gandhi," (Part II), 7 p.m. to 10 p.m., L-04, Uris Library.

"Salaam Bombay," 7 p.m. and 9:30 p.m., Anabel Taylor.*

"The Naked Gun," 9:45 p.m., Uris.*

"Imagine: John Lennon," midnight, Uris.*

Sunday, 4/30

Video Diaries of George Kuchar, directed by George Kuchar, co-sponsored by CCPA, 2 p.m., Johnson Museum.

"A Cry in the Dark" (1988), directed by Fred Schepisi, with Meryl Streep and Sam Neill, 8 p.m., Uris.*

Monday, 5/1

"Body and Soul" (1947), directed by Robert Rossen, with John Garfield, Lilli Palmer and William Conrad, 7 p.m., Uris.*

"A Cry in the Dark," 9:30 p.m., Uris.*

Tuesday, 5/2

"Spirit of Langawi," a Malaysian dance drama, sponsored by the Southeast Asia Film Series, 4:30 p.m., 310 Uris Library.

"Shattered Dreams -- Picking Up the Pieces" (1987), controversial documentary on contemporary Israeli society, directed by Victor Schonfeld, 8 p.m., Uris.*

Wednesday, 5/3

"Tampopo" (1986), directed by Juzo Itami, with Tsutomu Yamazaki, Nobuko Miyamoto and Koji Yakusho, 7 p.m., Uris.*

"A Cry in the Dark," 9:30 p.m., Uris.*



Charles Harrington
Marice Stith, who will direct the Cornell Wind Ensemble and Symphonic Band for the last time on Sunday at 4 p.m. in Bailey Hall.

Thursday, 5/4

"A Division of the Spoils," part 14 of "Jewel in the Crown" series, sponsored by the South Asia Program, 5 p.m., 310 Uris Library.

"Beaches" (1988), directed by Garry Marshall with Bette Midler, Barbara Hershey and Spalding Gray, 9:45 p.m., Uris.*

LECTURES

Art

"Early Photography and Modernism," John Szarkowski, A.D. White Professor-at-Large, director of photography, Museum of Modern Art, April 27, 8 p.m., Schwartz Auditorium, Rockefeller Hall.

Cognitive Studies

Three Lectures on Word and Belief, David Kaplan, philosophy, University of California, Los Angeles: "A Problem About Direct Reference," May 1, 4:30 p.m., 202 Uris Hall; "Words," May 2, 8 p.m., 202 Uris Hall; "Foreign Belief," May 3, 4:30 p.m., 202 Uris Hall.

East Asia Program

A debate on the status of Tibet, with Earle Scarlett, China expert, and Michael van Praag, Tibet expert, May 3, 8 p.m., Kaufmann Auditorium, Goldwin Smith Hall.

Mitsui Lectures

"The Newly-Industrialized Economies of Asia and Implications for Japan-U.S. Economic Relations," Yutaka Kosai, president, Japan Center for Economic Research, with panelists Takashi Shiraishi, Robert J. Smith and Yoon Je Cho, April 27, 4:30 p.m., Bache Auditorium, Malott Hall.

Education

"Teaching for a Learning Society: Keys to the Future," May 1, 4 p.m., W.I. Myers Room, 401 Warren Hall. A faculty panel discussion with George Conneman, College of Agriculture and Life Sciences director of academic programs; Daniel Sisler, professor, agricultural economics; Carol McFadden, senior lecturer, physiology; Naomi Altman, assistant professor, plant breeding and biometry; and Ari van Tienhoven, professor emeritus, animal physiology. This is the last event of the lecture series "Teaching For A Learning Society."

English

"Running Out of Matter: The Body Exercised in Eighteenth Century Fiction," Carol Flynn, Tufts University, April 28, 4 p.m., 102 Rockefeller Hall.

Gottschalk Memorial Lecture

"Suffocating Mothers: A Feminist Psychoanalytic Reading of 'King Lear,'" Janet Adelman, English, University of California at Berkeley and trustee, Shakespeare Association of America, April 27, 4:30 p.m., Kaufmann Auditorium, Goldwin Smith Hall.

Hillel

Robert Clary, a survivor of Nazi concentration camps and a stage, screen and TV personality who played a lead role in "Hogan's Heroes," will

speaking about his experiences in commemoration of Yom HaShoah, Holocaust Remembrance Day, May 2, 8 p.m., Anabel Taylor Auditorium. Tickets at \$4 for Hillel affiliates, \$5 for students, and \$6 for others and are available at G-34 Anabel Taylor Hall and at the door.

Society for the Humanities

"The Double Cave — The Double Talk" (Genesis 23); "The Indirections of Biblical Narrative," Meir Sternberg, poetics and comparative literature, Tel-Aviv University, May 2, 4:30 p.m., Guerlac Room, A.D. White House.

University Lectures

"Is the Cold War Over?" Richard J. Barnet, senior fellow, Institute of Policy Studies, April 27, 4:30 p.m., Hollis E. Cornell Auditorium, Goldwin Smith Hall.

"Technique in the Early Poetry of Yeats," Helen H. Vendler, William R. Kenan, Jr. Professor of English and American Literature and Language, Harvard University, May 4, 4:30 p.m., Hollis E. Cornell Auditorium, Goldwin Smith Hall.

MUSIC

Mostly Beethoven Festival

The Vienna Chamber Ensemble will perform the last concert of the Mostly Beethoven series on May 1 at 8:15 p.m. in Statler Auditorium. The program will include music from 18th-century Vienna. Tickets are on sale Monday through Friday at the Lincoln Hall ticket office, 9 a.m. to 1 p.m. Prices for the general public are \$12 and \$15; for students \$10 and \$13.

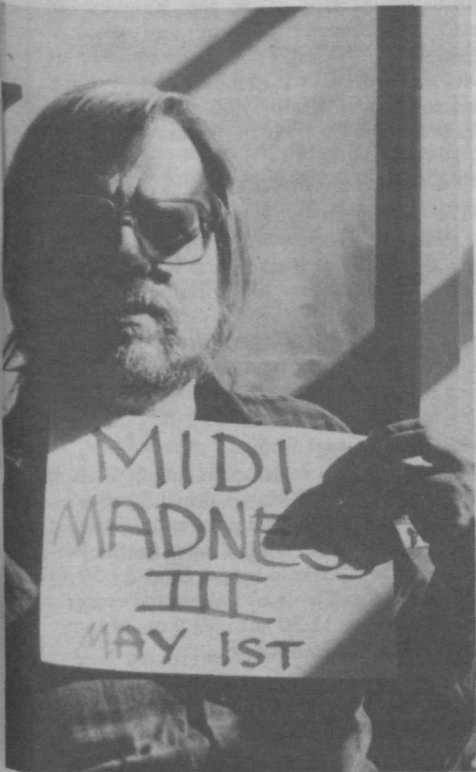
Department of Music

A short noontime concert by harpsichord students of Joyce Lindorff, April 27, 12:15 p.m. in Barnes Hall. They will perform works by Jean-Philippe Rameau, Johann Sebastian Bach, Francois Couperin and John Bull.

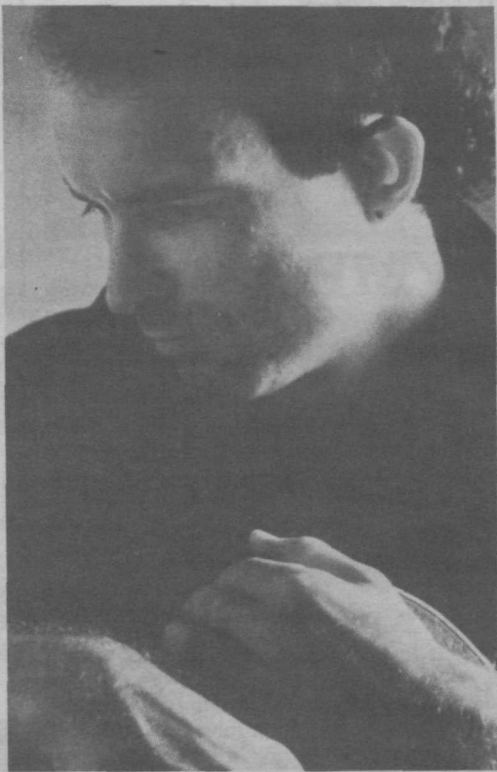
Cellos at Cornell, performed by guests and students of Lynden Cranham, April 27, 8:15 p.m., Barnes Hall. Featured works will be J.S. Bach's Prelude and Fugue, arr. for 5 cellos by Anita Hewitt-Jones; Offenbach's Andante from Duo for Two Cellos; Handel's Adagio from Organ Concerto, Op. 7, No. 4 trans. for 3 cellos by Charles Krane; Kelly's "Three Spanish Pieces" for 4 cellos; Verdi's Recitativo e Preghiera di Zaccaria from Nabucco; Pachelbel's Canon in D, arr. for 4 cellos by D. Pratt; Kummer's Allegro from Duet, Op. 22; Casals' "Les Rois Mages" from Oratorio de la Creche.

Piano student Monique Cho will perform works by Bach, Chopin, Ravel, Mozart on April 28, 8:15 p.m., Barnes Hall.

Cornell Symphony Orchestra, directed by Edward Murray, will perform on April 29 at 8:15 p.m. in Bailey Hall. Elizabeth Field, a successful New York violinist will join the orchestra. Included in the program will be Schubert's Symphony No. 9 in C, the composer's last symphony, and one of the greatest works, Dvorak's



David Borden, who will help out this week as his students give two concerts.



Fred Small, who will sing folk songs on Saturday in Kaufmann Auditorium.

rarely heard "Romance" for violin and orchestra; and Charles Griffes' "The White Peacock."

Cornell Wind Ensemble and Symphonic Band will perform together for the last time under longtime director Marice Stith, on April 30 at 4 p.m. in Bailey Hall.

MIDI Madness III (Musical-Instrumental-Digital-Interface), an end-of-the-semester concert by students of David Borden, director of the digital music program, May 1 at 8:25 p.m. in Barnes Hall. Each student has prepared and will present an original composition.

A student chamber music concert under the direction of Sonya Monosoff will feature a Debussy-Ravel-Beethoven concert on May 2 at 8:30 p.m. in Barnes Hall. Debussy's String Quartet, Op. 10, will be performed by Bruce Anderson and Manek Mistry, violins; Karen Mohlke, viola and Nathan Siemers, cello. Beethoven's the Piano Trio, Op. 97 ("The Archduke") will be performed by Yaoh-Song Chen, violin, Annie Ballantyne, cello and Yumi Asaoka, piano.

Sabine Vinck and Chui-Inn Lee will perform two pieces for four hands — Mozart's Sonata in D Major and Schubert's Fantasie in F Minor, D. 940 — in a piano concert on May 3 at 8:15 p.m. in Barnes Hall. Saint-Saens' "Carnival of the Animals" also will be performed.

"Gamelan Under the Sun," an afternoon concert on May 4 beginning at 3 p.m. on the Arts Quad, with visiting musicians and Martin Hatch directing. This orchestra will include hanging gongs, gong-chimes, keyed metallophones, bowed lutes, xylophones and drums.

"Family Fugue," a presentation of original fugues performed on a variety of digital instruments including the Macintosh Computer by students from David Borden's class, "Learning Counterpoint Through Digital Technology," May 4, 8:15 p.m., Room 301, Lincoln Hall.

Bound for Glory

Orrin Star, from Cambridge, will perform three live sets in the Commons Coffeehouse, 8:30 p.m., 9:30 p.m. and 11:30 p.m. on April 30. Bound for Glory can be heard from 8 to 11 p.m. on WVBR-FM93.

Folk Concert

Folksinger Fred Small will perform on April 29 at 8 p.m. in Kaufmann Auditorium, Goldwin Smith Hall. Also appearing will be Sharon Sigal, singer/songwriter. Tickets are \$5 and are available at Rebop Records, Smedley's Bookshop, Borealis Bookstore, and at the Commons Coffeehouse; \$6 at the door.

Nothing But Treble

"Treble Without a Cause," will be presented by Nothing But Treble, Cornell's oldest female a cappella singing group, April 28 at 8 p.m. in Bache Auditorium, Malott Hall. Special guests will be the Rochester Yellow Jackets. Tickets are \$3 from any group member or at the door.

Unions & Activities

Music with Darlene Molina and Jeff Herschburg, April 27 at 8 p.m. in the Memorial Room, Willard Straight Hall. "Classics at Noon," with Louisa Trujillo, "The Cayuga Sagbutt Quintett," May 3, noon, Memorial Room, Willard Straight Hall.

READINGS

Chasen Poetry Reading

Poet Charles Simic, author of 13 books of poetry, will read some of his work on May 2 at 4:30 p.m. in Hollis E. Cornell, Goldwin Smith Hall. Simic's poems have appeared in many languages, and full-length collections of his poems have been translated and published in France, Holland and Yugoslavia. His work is included in more than 30 anthologies.

RELIGION

Sage Chapel

Rabbi Arnold J. Wolf, Congregation K.A.M. Isaiah Israel, Chicago, will deliver the sermon on April 30. Services begin at 11 a.m. Music will be provided by the Sage Chapel choir, under the direction of Donald R.M. Paterson.

Catholic

Mass: Every Saturday, 5 p.m., every Sunday, 9:30 and 11 a.m., and 5 p.m., Anabel Taylor Auditorium.

Daily Masses Monday through Friday, 12:20 p.m., Anabel Taylor Chapel.

Christian Science

Testimony Meeting: Every Thursday, 7 p.m., Anabel Taylor Founders Room.

Episcopal (Anglican)

Every Sunday, 5 p.m., Anabel Taylor Chapel.

Friends (Quakers)

Sunday, 10 a.m., adult discussion; 11 a.m. meeting for worship, Edwards Room, Anabel Taylor Hall.

Jewish

Morning Minyan: Young Israel House, 106 West Avenue. Call 272-5810.

Reform Services: Friday evenings 6 p.m., Anabel Taylor Chapel.

Conservative/Egalitarian Services: Friday 6 p.m., Saturday 9:45 a.m., Anabel Taylor Hall Founders Room.

Orthodox Shabbat Services: Friday evenings, Young Israel, 106 West Ave. Call 272-5810; Saturday 9:15 a.m., Edwards Room, Anabel Taylor Hall.

Korean Church

Every Sunday, 1 p.m. Anabel Taylor Chapel.

Muslim

Sunday through Thursday, 1 p.m., 218 Anabel Taylor Hall. Friday 1 p.m. Anabel Taylor Edwards Room.

Protestant

Protestant Cooperative Ministry: Bible Study will begin 10 a.m., G-7, Anabel Taylor Hall. Worship every Sunday, 11:00 a.m., Anabel Taylor Chapel.

Baptist Campus Ministry (SBC): Every Saturday, 7 p.m., in the Forum, Anabel Taylor Hall.

Zen Buddhism

Zazen meditation: Tuesdays at 7 p.m. and Thursdays at 5:10 p.m. in the chapel or the Edwards Room, Anabel Taylor Hall. For more information or to arrange beginner's instruction, telephone Ian Dobson: 347-4303.

SEMINARS

Agricultural Economics

"The Supply Side Politics of Acid Rain: A Mid-Western Perspective," Otto Doering, Purdue University, April 28, 3 p.m., W.I. Myers Seminar Room, 401 Warren Hall.

Agronomy

"Farm Scale Land Evaluation in Guatemala," Chris De Roller, agronomy, May 2, 4 p.m., 135 Emerson Hall.

Applied Mathematics

"On the Algebraic Theory of Poles and Zeros of Transfer Function Matrices," Bostwick F. Wyman, Ohio State University, April 28, 4 p.m., 322 Sage Hall.

Astronomy

"Star Formation and the Structure of Molecular Clouds," Chris McKee, University of California, Berkeley, April 27, 4:30 p.m., 105 Space Sciences.

"Supernovae X-rays, Molecular Clouds, and Starburst Galaxies," Bruce Draine, Princeton University, May 4, 4:30 p.m., 105 Space Sciences.

Biochemistry, Molecular & Cell Biology

"Intracellular Transport of Glycoproteins: Quality Control in the Endoplasmic Reticulum," Ari Helenius, cell biology and biology, Yale University School of Medicine, April 28, 4:00 p.m., Conference Room, Biotechnology Bldg.

Biophysics

"Are There Morphogenetic Rules in Embryology? Applications to Specific Problems in Developmental Biology and Some Questions in Evolution," James Murray, University of Oxford, applied mathematics, University of Washington, May 3, 4:30 p.m., 700 Clark Hall.

Chemical Engineering

"Blood Cell Deformability in Extensional Flows," Paul Frattini, chemical engineering, Carnegie-Mellon University, May 2, 4:15 p.m., 145 Olin Hall.

Chemistry

"Recent Advances in the Synthesis of Oxygenated Natural Products," Stephen Martin, University of Texas, May 1, 4:40 p.m., 119 Baker. Organic Chemistry Colloquium.

"Some New Developments in Density Functional Theory," Robert A. Harris, University of California, Berkeley, May 4, 4:40 p.m., 119 Baker. General Chemistry Colloquium.

Communication

"Diffusion of Computers: The First Seven Years of a Longitudinal Study," Eric Abbott and J. Paul Yarbrough, communication, April 28, 2:30 p.m., Room 3, 640 Stewart Avenue.

Cooperative Extension Forum

"Issues Focused Programming in Metropolitan Areas: Successes and Challenges," overview by Elmer Ewing, vegetable crops, May 1, 9 a.m., 401 Warren Hall. William Boldt will be the moderator, and speakers will be agents from Nassau and Onondaga counties and from New York City.

Cornell Information Technologies

"Visualizing Scientific Data at the Cornell National Supercomputer Facility (CNSF)," Bruce Land, manager, Visual Interface Technologies (VIT), April 27, 12:20 p.m., 100 Caldwell Hall.

Cornell Research Club

Title to be announced, Alfred Kahn, Robert Julius Thorne Professor of Economics, May 4, 12:50 p.m., Faculty Commons, Martha Van Rensselaer Hall.

Electrical Engineering

"Bandlimited Extrapolation of Autocovariance Sequences," K.S. Arun, Coordinated Science Laboratory, University of Illinois, Urbana, May 2, 4:30 p.m., 219 Phillips Hall.

Entomology

Title to be announced, Catherine Loudon, biology, May 1, 4 p.m., Morison Seminar Room, Corson/Mudd Hall.

Environmental Toxicology

"Environmental Toxics from the Home," Ann Lemley, textiles and apparel, April 28, 12:20 p.m., 14 Femow Hall.

Epidemiology

"Overlap of Lactation with Pregnancy," Kathleen Merchant, Stanford University, May 1, 12:20 p.m., 201 Warren Hall.

Field & International Study

"Perspectives on a Celebration of Southeast Asian Cultures," a presentation by the students of FIS 200: preparation for fieldwork, Field and International Study Program, May 1, 4:30 p.m., N207 Martha Van Rensselaer Hall.

Floriculture & Ornamental Horticulture

"Campus Planning at Chalmers Institute," Roger Trancik, landscape architecture, April 27, 12:15 p.m., 404 Plant Science.

"Use of Photograph and a Video-Imaging System for Estimating the Leaf Surface Area of Four Broad-Leaved Woody Tree Species," Pat Lindsey, MS/MLA candidate, May 4, 12:15 p.m., 404 Plant Science.

Food Science & Technology

"Unique Characteristics of the Potato 5-Lipoxygenase," Jay Whelan, food science, May 2, 4:30 p.m., 204 Stocking Hall.

Geological Sciences

"Subsurface Geology of the Finger Lakes," Henry Mullins, Syracuse University, May 2, 4:30 p.m., 1120 Snee Hall.

History & Philosophy of Science & Technology

"How the West Was Won: Silicon Valley and Post-War Stanford," Stewart Leslie, History of Science Program, The Johns Hopkins University, April 27, 4:30 p.m., 165 McGraw Hall.

Immunology

"Enhancement of Non-Specific Resistance to Bacterial Challenge by the Immunostimulant Lentinan," Bruce Rankin, microbiology, NYSCVM, April 28, 12:15 p.m., G-3 Vet Research Tower.

International Nutrition

"Community Participation in School Feeding in Sri Lanka," S. Mallika Karunaratne, Hubert Humphrey Fellow, deputy director, Food and Nutrition Policy Planning Division, Ministry of Plan Implementation, Sri Lanka, April 27, 12:15 p.m., 200 Savage Hall.

"China and the Epidemiological Transition: Implications for Future Health Policy," Richard Baumgarner, senior project officer, China department, The World Bank, Washington, D.C., April 27, 4:30 p.m., 200 Savage Hall.

"Nutrition and Health of Primary School Children," two videos and discussion of a UNESCO conference, Michael C. Latham, international nutrition, director, Program in International Nutrition, May 4, 12:15 p.m., 200 Savage Hall.

International Studies in Planning

"The Struggle for Ecological Agriculture in Cuba," Richard Levins, Harvard School of Public Health, April 28, 12:15 p.m., 115 Tjaden Hall.

Latin American Studies Program

"The Literary History of a Small Insurrection: Textual Production and Revolutionary Action in Mario Vargas Llosa's 'Historia de Mayta,'" Michael J. Thomas, Ph.D. candidate, anthropology, May 1, 12:15 p.m., 153 Uris Hall.

"The Emergence of Capitalized Family Farms in Latin America," Luis Llambi, anthropology, Venezuelan Institute for Scientific Research, Caracas, May 1, 3:30 p.m., G-08 Uris Hall.

"Implications of the Gorbachev Era for Cuban Socialism," Rhoda Rabkin, Harvard University, May 2, 12:15 p.m., 153 Uris Hall.

Materials Science & Engineering

"Diffusion in Oxides," Francois Morin, Thydre Quebec, May 4, 4:30 p.m., 140 Bard Hall.

Mathematical Sciences Institute

"Research in Sensor-Based Robotics," Norman Coleman, U.S. Army Armament Research Development and Engineering Center, Robotics Lab., May 3, 3 p.m., 5130 Upson.

Mechanical & Aerospace Engineering

"The Mechanics, Biomechanics and Design of Bicycles," Jim M. Papadopoulos, May 2, 4:30 p.m., 111 Upson.

CALENDAR

continued from page 5

Microbiology

"Molecular Analysis of the Composition of a Simple Hot Spring Community: New Organisms from an Old Environment," David Ward, microbiology, Montana State University, Bozeman, April 27, 4:30 p.m., 124 Stocking Hall.

"A Molecular Mechanism for Human Papillomavirus Induced Carcinogenesis," Thomas Broker, biochemistry, University of Rochester Medical Center, May 1, 12:15 p.m., G-3 Vet Research Tower.

"Hydrogenase and Ammonia Monooxygenase: Metalloenzymes of the Microbial Nitrogen Cycle," Daniel Arp, biochemistry, University of California, Riverside, May 1, 4:30 p.m., 105 Riley Robb.

"Comparison of Hydrogen Oxidation Activities from Hyperthermophilic and Mesophilic Bacteria," Robert Maier, biology, The Johns Hopkins University, May 4, 4:30 p.m., 124 Stocking Hall.

Natural Resources

"Return-A-Gift to Wildlife Policy and Procedure," David Nelson, conservation biologist, Return-A-Gift to Wildlife Program coordinator, Division of Fish & Wildlife, NYS DEC, May 1, 12:20 p.m., 304 Femow Hall.

Nutrition

"Women's Motives for Dietary Prevention of Breast Cancer," Carol Courser, May 1, 4:30 p.m., 100 Savage Hall.

Operations Research & Industrial Engineering

"Back to the Future of Robotics," Joseph Engelberger, April 27, 4:30 p.m., Schwartz Auditorium, Rockefeller Hall.

Ornithology

"The Northern Montezuma Wetlands Joint Venture Project and its Ecological Importance," Gene Hocutt, refuge manager, Montezuma National Wildlife Refuge, May 1, 7:45 p.m., Laboratory of Ornithology, 159 Sapsucker Woods Rd.

Peace Studies Program

"Thinking About Foreign Policy," Charles Hill, former executive assistant to Secretary of State George Shultz, diplomat-in-residence, Hoover Institution, and Clark Fellow, April 27, 12:15 p.m., G-08 Uris Hall.

"American Interventions to Reform Authoritarian Allies," Douglas Mac Donald, Colgate University, May 4, 12:15 p.m., G-08 Uris Hall.

Pharmacology

"Developmental Regulations & Modulation of Neuronal A Cetylcholine Receptors," Lorna Role, anatomy and cell biology, Columbia University, May 1, 4:30 p.m., G-3 Vet Research Tower.

Physiology

"Mutation of a Ca²⁺ Gene: Its Effect on Muscle Function," Jean, physiology, Colorado State University, May 2, 4:30 p.m., G-3 Vet Research Tower.

Plant Biology

"Polyamines in Tomato Flower Development," Rajeev Rastogi, plant biology, April 28, 11:15 a.m., 404 Plant Science.

Plant Pathology

"Epidemiology and Management of Web Blight of Beans in Colombia," Moises Cardenas, plant pathology, May 2, 4:30 p.m., 404 Plant Science Bldg.

"Progress in Genetic Transformation of Apple and Selection of Transformants for Resistance to *Venturia inaequalis*," May 3, 3 p.m., A-133 Barton Lab, Geneva.

Poultry Biology

"The Effect of Growth Hormone and Thyroid Hormone Treatment on Immune Function in the Chicken," Ursula Kneissl, April 27, 4:30 p.m., 300 Rice Hall.

Psychology

"Party Animals: Social Intelligence and the Evolution of the Primate Brain," Meredith Small, anthropology, April 28, 3:30 p.m., 202 Uris Hall.

Rural Sociology

"U.S. Agriculture in the World Economy: Is 'Green Power' a Symptom of Decline?" Philip McMichael, rural sociology, May 1, 12:15 p.m., 32 Warren Hall.

"The Transition from Large Estate Farms to Agro-Industrial Complexes: Comparative Examples from Latin America," Luis Llambi,

anthropology, Venezuelan Institute for Scientific Research, Caracas, May 2, 12:10 p.m., 32 Warren Hall.

Science, Technology & Society

"Knowledge and Politics in Economic Policy Making," Otto Singer, University of Konstanz, Federal Republic of Germany, May 1, 12:15 p.m., 609 Clark Hall.

Sociology

"Competition and Markets: An Institutional Approach," Mitchel Abolafia, sociology, April 28, 3:30 p.m. 302 Uris Hall.

Southeast Asia Program

"Dav: Virtuous Woman or Virtueless Woman? Conflicting Images of the Ideal Woman in the Khmer Epic 'Dum Dav'," Judy Ledgerwood, SEAP grad, anthropology, April 27, 12:20 p.m., 102 West Avenue Ext.

"Life Along the Mekong: Laos and Northeast Thailand," Lawrence Ashman, assistant curator, Echols Collection, May 4, 12:20 p.m., 102 West Avenue Ext.

Stability, Transition and Turbulence

"Unsteady Separation Over a Maneuvering Body," Tzuyin Wu, mechanical and aerospace engineering, May 2, 1 p.m., 288 Grumman.

Statistics

"Sampling Designs and Estimators for Time Series," Stamatis Cambanis, statistics, University of North Carolina, Chapel Hill, May 3, 3:30 p.m., 250 Caldwell Hall.

Textiles & Apparel

"Bulking of Nylon Fibers," John Southern, Monsanto, Pensacola, Fla., May 2, 12:20 p.m., 317 Martha Van Rensselaer Hall.

Theoretical & Applied Mechanics

"Long Term Evolution of Orbits in the Solar System: Resonances, Stability and Chaos," Anna Nobili, University of Pisa and Cornell, May 3, 4:30 p.m., 205 Thurston.

Vegetable Crops

"The Response of Beans to Flooding," Benyamin Lakitan, vegetable crops, April 27, 4:30 p.m., 404 Plant Science.

"Effectiveness of Vegetable Oil in Reducing Dry Bean Storage Losses," Judith S. Hall, vegetable crops, May 4, 4:30 p.m., 404 Plant Science.

Veterinary Pathology

"Bovine Spongiform Encephalopathy: A Novel, Scrapie-Like Disease of Cattle in the United Kingdom," Gerald A.H. Wells, neuropathology, Central Veterinary Laboratory, Weybridge, Surrey, U.K., April 27, 3 p.m., G-3 Vet Research Tower.

"Genetic and Pathobiological Aspects of Progressive Tumor Growth and the Development of Metastases," Robert S. Kerbel, division of cancer & cell biology, Mount Sinai Hospital Research Institute and medical genetics, University of Toronto, May 4, 1 p.m., Room 828, Vet Research Tower.

SPORTS

Thursday, 4/27-Friday, 4/29

Men's Track, at Pennsylvania Relays
Women's Track, at Pennsylvania Relays

Friday, 4/28

Women's Tennis, at Dartmouth, 2 p.m.
Men's Tennis, Dartmouth, at home, 4 p.m.
Men's Jr. Varsity Lacrosse, Nassau CC, at home, 6 p.m.

Saturday, 4/29

Men's Hvy. Crew, at Princeton
Women's Crew, at Brown
Baseball, at Yale (2), noon
Men's Ltwt Crew, at home, Dartmouth, noon
Women's Lacrosse, at Princeton, noon
Women's Tennis, at Harvard, noon
Men's Lacrosse, Princeton, at home, 1 p.m.
Men's Tennis, Harvard, at home, 1 p.m.

Sunday, 4/30

Women's Jr. Varsity Lacrosse, RIT, at home, 11 a.m.
Baseball, at Brown (2), noon
Women's Lacrosse, Boston College, at home, 1 p.m.
Men's Jr. Varsity Lacrosse, SUNY, Farmingdale, at home, 3 p.m.

Monday, 5/1

Golf, Northeastern at Baldwinsville

Tuesday, 5/2

Baseball, at Oneonta, 3 p.m.
Women's Lacrosse, Cortland, at home, 3:30 p.m.

SYMPOSLA

4-H Clubs

"Recreating and Reaffirming the 4-H Club in New York State," a conference sponsored by the New York State Association of Cooperative Extension 4-H agents, April 27 and 28, Holiday Inn, Ithaca. For a schedule of speakers and other events, call Timothy W. Olsen, 315-788-8450.

Arthur S. Penn Photography

"Art Images/Commercial Images," an all-day symposium, in conjunction with the photography exhibition at the Johnson Museum, April 29, 9 a.m. to 5 p.m., Johnson Museum of Art. Robert Sobieszek, director of Photographic Collections at the International Museum of Photography, George Eastman House, will give the keynote address. Other topics and speakers include: "Under the Influence: Art, Photography and Media Culture," Marvin Heiferman curator, writer, book editor; "Pleasure as Abstract Commodity: Displacement in the Economy of Commercial Photography," Timothy C. Murray, English; "Act Like a Man: Richard Prince's Marlboro Man," Brian Wallis, editor, "Art In America"; "Move?" (video tapes), Pat Ward Williams, photographer and media artist; and a discussion by Martha Rossler, photographer and media artist, on her work in relation to commercial and fine art photography.

Biotechnology Program

"Regulatory Issues for Biotechnologists," May 4, Seminar Room, Biotechnology Building. Robert B. Nicholas, a partner in the law firm McDermott, Will & Emery, Washington, D.C. will speak at all sessions. Topics will be: "Obtaining Approval for Pesticides Field Testing," 8:30 a.m. to 10 a.m.; "Regulatory Procedures for Foods and Feeds Testing," 10:30 a.m. to noon; "Procedures for Field Testing Animal Drugs and Biologics," 1:30 p.m. to 3 p.m. For further information: Mary Lee Norton at 255-4665.

Cornell Nursery School

"The Roots of Intelligence," Joseph Chilton Pearce, author of "Magical Child," and "Magical Child Matures," April 28 and 29, auditorium, Martha Van Rensselaer Hall. For further information and registration call 277-7240 evenings; or 315-364-8568 days.

Law School

"Collective Bargaining Issues in Major League Sports," April 28, 4 p.m. to 5:30 p.m. in Room G90, Myron Taylor Hall. Participants for the round-table discussion will be: Eugene Orza, Gary Bettman, Jeffrey A. Mishkin and W. Buckley Briggs. For more information call Pam Benjamin at 277-2314 or Kathleen Rourke at 255-7477.

Upstate Writers

Upstate writers conference will be held April 30, 9 a.m. to 5 p.m., in Ives Hall and the ILR Conference Center. The morning panels will include: "Fair Trade: How to Deal with the Trade Press"; Science Writing: Pushing the Boundaries"; and "Poetry: Readings Writings and Getting Read." At noon there will be an all-conference plenary, "For Love and Money: Publishing Conglomerates, Censorship and the American Writer." Afternoon panels will include: "University Presses: Fair Treatment's Not Just Academic"; "Freelance Writing from Upstate," and "Writing for Children: It's Not Just Kids Stuff"; "Agents: Who Do They Work For?"; and "The National Writers Union: On Getting What You Deserve." Registration is \$25 at the door; \$20 in advance, in person to Dave Lindorff at 640 Stewart Ave by 4 p.m., April 28; Writers Union members \$15; students with ID \$5.

THEATER

Africana Studies & Research Center

Black Theater Workshop will present a double bill of "For Colored Girls who have

Considered Suicide when the Rainbow in Enuf," by Ntozake Shange, and selected scenes from "A Soldier's Play," by Charles Fuller on April 30 at 1:30 p.m. and May 1 at 8 p.m., in Anabel Taylor Hall. Admission is free.

The Cornell Savoyards

The Cornell Savoyards will present Gilbert and Sullivan's operetta "Utopia, Ltd." on April 28 and 29 at 8 p.m., and April 29 at 2 p.m. in the James Law Auditorium, Schurman Hall of the Cornell Veterinary School. Tickets can be purchased at Willard Straight Box Office; reservations can be made through Center Ithaca Box Office by calling 273-4497.

Theatre Arts

"Piaf," a story with music about French chanteuse Edith Piaf, May 3, 4 and 5 at 8 p.m. and May 6 at 5 p.m. and 9 p.m. in the Class of '56 Flexible Theatre, at the Center for the Performing Arts. Tickets range from \$3.50 to \$5.50 and are available by calling the center's box office from 11:30 to 5:30 p.m. Monday through Friday at 254-ARTS.

MISC.

Cornell Catholic Community

Dessert tasting and benefit auction, with contributions made by local businesses and the parishoners, April 29 in the One World Room, Anabel Taylor Hall. The dessert tasting will run from 6:15 to 8 p.m.; \$3 donation is requested. Call Bill Turner, 255-9098 weekdays, or 533-7623 other times, for more information. The auction will begin at 8 p.m. For more information call Andrew Horsfield, 255-5522 weekdays, or 277-3270 at other times.

Cornell Plantations

Individuals and groups are encouraged to participate in the semi-annual clean-up of Cascadilla Gorge and Collegetown on April 29 between noon and 3 p.m. Meet at the Cornell Plantations truck on College Avenue at the Cascadilla Bridge. For more information call the Plantations at 255-3020.

CUSLAR

The Committee on US-Latin American Relations and Ethnomusicology Club will present JACAY, a six-member band featuring Ecuadorian music and a benefit dinner of traditional food from the Andes, at 6 p.m. on April 29. The concert will begin at 8 p.m. at the Commons Coffee House, Anabel Taylor Hall. Dinner and music \$7 to \$10; \$3 music only. Tickets available at CUSLAR, Logos Bookstore and Borealis Bookstore.

Graduate Advocacy Organization

The Graduate Advocacy Organization will meet on April 27 at 7:30 p.m. in the Henry Graduate Lounge in Sage Hall. Child care will be provided.

Fuertes Observatory

Fuertes Observatory, situated on the hill behind Helen Newman Hall, will be open to the public every clear Friday night from 8 p.m. or dark until midnight. Call 255-3557 for information.

Cornell World Tae Kwon Do Club

An exhibition of Korean karate with special guest grandmaster Duk Sung Son, 9th degree black belt, April 29, noon, third floor lounge, Noyes Center. Visiting clubs will be coming from Albany, Buffalo, Fredonia and Syracuse. A belt test will follow. Korean karate is taught with practices on Sundays at 7 p.m. in southwest corner, Barton Hall; Mondays, Tuesdays and Thursdays, 6 p.m. in the auditorium, Martha Van Rensselaer Hall. For more information call Trish, 272-9227 or Sandy, 255-1808.

Macintosh Users' Group

MUGWUMP, the Macintosh Users' Group for Writers and Users of Mac Programs, meet on the first Thursday of each month, 3:30 p.m., in 100 Caldwell and on the second Wednesday of each month, 7 to 9 p.m. in various locations. Meetings are free and beginners are welcome. For more information, call Andrew Merkle, 277-2239.

Cornell Toastmasters

Cornell Toastmasters Public Speaking Club meets Thursdays at 7 p.m. Call 277-4452 for more information.

Integrated pest management cuts use of pesticides statewide

Thousands of farmers are changing production methods to use fewer pesticides thanks to non-toxic pest-control techniques developed by the Integrated Pest Management program conducted by Cornell for New York state.

That assessment is made in the program's 1988 Annual Report to the state Legislature. In releasing the report, Director James P. Tette noted that integrated pest management "bases pest control decisions on actual farm conditions."

Unlike conventional spraying programs that use pesticides on calendar-based schedules, farmers using IPM techniques such as monitoring temperature and humidity levels to predict pest attacks, know if and when their crops are endangered. If the pests pose a threat, IPM specialists recommend control strategies based on the situation in the farmer's own fields.

After just three years of state funding for

research, field testing and demonstrations, "IPM shows clear benefits for consumers, sportsmen, environmentalists, farmers and conservationists," Tette asserted.

He went on to note that fewer pesticides in the environment mean less risk of groundwater contamination, of pesticide residues in food, of health hazards to farmers and farm labor, and of toxic effects on wildlife and beneficial insects. Reduced pesticide use also means lower production costs for farmers, he added.

In 1988, funds from New York's Department of Agriculture and Markets supported 25 IPM demonstration projects involving 86,000 acres to reduce pesticide use in 27 crops with traditionally high pesticide inputs. Tette said the results are conclusive, and cited these examples:

- New York onion growers such as Orange County farmer Ray Pikul used 32 percent fewer dose equivalents of pesticides

last year than they did in 1980. (Applications cannot be compared accurately in terms of pounds because of changes in formulas' potency, so the report uses "dose equivalents," or Cornell's recommended application rate for a particular crop.)

- New York potato growers practicing IPM used 21 percent less fungicides and 7 percent less insecticides than others.

- IPM apple growers used 38 percent less pesticides than they did in 1975. "It was an education to see how much waste we had in chemicals over the years," said Orleans County orchardist Randy Paddock.

- Although alfalfa makes the choicest hay used by dairymen to boost milk production, it's subject to attack by the alfalfa weevil. IPM scouts checking fields for weevil population levels showed dairymen such as Niagara County's Robert Schmitt that there were options other than pesticides. In fact, only 57 of the 3,235 acres of alfalfa fields

enrolled in the program needed insecticides.

According to the annual report, farmers want the general public to view their products as clean and healthful. Concerns about environmental safety and the quality of their crops led more growers to follow IPM recommendations in 1988. "Growers are reducing their dependence on pesticides and embracing IPM concepts as never before," Tette said.

From the taxpayers' point of view, the most important aspect of IPM is that the state investment is a cost-effective way to cut pesticide use, Tette asserted. For a modest investment in research and education, the state achieves voluntary acceptance of pesticide-reducing pest control techniques, he said, adding that this investment must be compared to the annual cost of hiring regulatory, enforcement and support staff to police the state's largest industry.

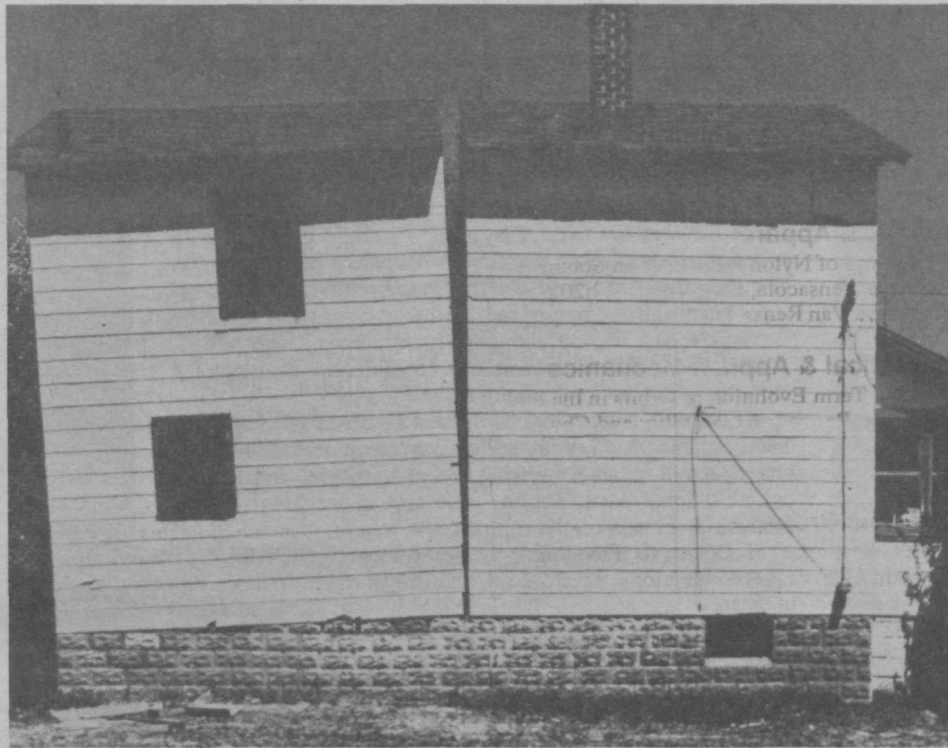
—Matthew Shulman

Museum to exhibit work of Matta-Clark

The first retrospective of the work of Gordon Matta-Clark, which transcends conventional boundaries between architecture, sculpture, photography and performance, will be presented by the Johnson Museum of Art from May 5 through June 4.

Matta-Clark was the son of well-known surrealist painter Roberto Matta Echaurren and American painter Anne Clark. He studied architecture at Cornell and graduated in 1968. He returned to Cornell to assist artist Dennis Oppenheim, who participated in the museum exhibition "Earth Art." Oppenheim's piece, "Beebe Lake Ice Cut," marked Matta-Clark's first experience with cutting, later a feature of his own work.

In his short career, Matta-Clark gained notoriety for cutting slices from abandoned buildings with a chain saw, exposing their structure and a portion of their history. Six months after completing his only American project outside of the New York area, "Circus of The Caribbean Orange" for the MCA in Chicago, Matta-Clark died of cancer at the age of 35.



"Splitting," (1974) one of two photographs of this subject by Gordon Matta-Clark.

Public to join engineers for talk on robotics

Joseph Engelberger, often called the "father of robotics," will discuss "Back to the Future — of Robotics" in a public talk today beginning at 4:30 p.m. in the Richard J. and Sheila W. Schwartz Auditorium of Rockefeller Hall.

The lecture is open to the public. It also will serve as a keynote presentation for "Survival of the Industry in the Nineties," an engineering conference to be held April 27-29, and as part of a weekly graduate seminar in manufacturing engineering.

The registrants-only conference is sponsored by the College of Engineering and the Cornell Society of Engineers and will be held in the new Statler conference center.

The graduate seminar series, required for a master's degree in engineering, recruits engineers from both major corporations and young, emerging firms to speak about the latest product development strategies.

Engelberger's talk will focus on new developments in robot vision and mobility that extend their capabilities from manufacturing to service industry roles such as automated gas station attendants, telephone line repairmen and fast-food cashiers, according to Herb Voelcker, director of the Cornell Manufacturing Engineering and Productivity Program, which co-sponsors the engineering seminar.

Engelberger currently serves as chairman of Transitions Research Corp., which is seeking to introduce robotics into the service industry.

The engineering conference will also include a panel discussion on corporate mergers and acquisitions, a review of undergraduate research projects, and a presentation by management specialist Tom Peters, author of the New York Times best seller "Thriving on Chaos: Handbook for a Management Revolution."

Also featured will be a discussion of "Issues in Competitiveness: A Technologist's View" by Sibley College Professor of Engineering K.K. Wang.

—Marie E. Garlo

Sociologist Daniel Bell to lecture on May 4

Daniel Bell, a sociologist and social and political philosopher at Harvard University who is ranked as one of the nation's most original contemporary thinkers, will lecture and conduct a seminar on May 3 and 4 as the first Alpern Fellow in the School of Industrial and Labor Relations.

His schedule includes:

- May 3 at 4 p.m., a seminar on "The New Technology and Its Consequences," 320 ILR Conference Center.

- May 4 at 4 p.m., a public lecture on "The Third Industrial Revolution," Room 117 Ives Hall.

David Lipsky, the ILR School dean, said that students and faculty from other Cornell colleges are being urged to attend Bell's presentation because his work cov-

ers a broad range of disciplines.

Bell's 1960 book, "The End of Ideology," recently reissued by Harvard University Press, argues that optimistic approaches to remake society became exhausted in the violent turmoil of this century.

"Basically what 'The End of Ideology' contains is a skepticism, a skepticism of all panaceas, of utopias, of social programs that are going to change the world by interventions in a given area," Bell said in an interview earlier this year.

He now is working on a book that describes how modern technology affects the way people relate to one another and carry out transactions.

Bell served on the faculty at Columbia University before joining Harvard in

1969. Earlier, he was managing editor of The New Leader, managing editor of Common Sense and labor editor of Fortune magazine.

The Alpern Visiting Fellowship Program was established through a grant from Jerome and Enid Alpern to bring to the ILR School scholars who integrate social issues and humanitarian values within the field of industrial and labor relations.

Jerome Alpern, a partner in the accounting firm of Alpern & Alpern in New York City, received a bachelor's degree from the ILR School in 1949 and a master's degree in business administration at Cornell the following year. Enid Alpern graduated from Cornell in 1947.

—Albert E. Kaff

2 named to finance positions

Cornell has named Richard W. Banks as the new director of business operations in the Division of Public Affairs and Linda R. Heinle as the new bursar.

Banks, who had been Cornell's bursar since 1984, joined the university in 1978 as a collection officer. In his new position, he oversees financial operations in the Office of the Vice President for Public Affairs, which directs fund-raising efforts and alumni relations, among other duties.

During his tenure as bursar, Banks oversaw the development of a strong, cooperative relationship between his office and the financial aid office at Cornell, said Controller John S. Ostrom.

"He also helped put into place programs that allow Cornell students to pre-pay four years of tuition at the start of their freshman year or to have their tuition bills paid by automatic payments from their savings accounts," Ostrom said.

Banks also was co-developer of a program that employed senior citizens that

helped keep Cornell's student loan default rate well below the national average. Cornell, in cooperation with the Older People's Employment Network, which helped senior citizens between the ages of 63 and 70 find work, hired three senior citizens and trained them to trace former students who had defaulted on their loans.

Banks is a 1974 graduate of Cornell.

Heinle, who was named Cornell's associate bursar in 1985, was administrator of student loans and accounts at Amherst College before joining Cornell.

As associate bursar, she oversaw a student charge-card program, the university's student-loan program, and financial counseling of students and parents.

Heinle holds a master's degree in business administration from the University of Massachusetts in Amherst, a bachelor's degree in English from Amherst College and an associate degree in liberal arts from Greenfield (Mass.) Community College.

—Mark Eyerly

Events to mark Biotechnology Day will focus on research, issues, careers

Research, careers and issues in biotechnology will be the topics for discussion on Biotechnology Day, May 1, from 4:30 to 8 p.m. in the Biotechnology Building.

The event has been organized by the Division of Biological Sciences, the Biotechnology Program, the Biology and Society Program and the student chapter of the American Institute of Biological Sciences. The day's sponsor is Pfizer Inc., a manufacturer of pharmaceutical, agricultural and chemical products.

"Biotechnology is going to be much more prevalent in our lives in the future," said June Fessenden-MacDonald, an associate professor of biochemistry, molecular and cell biology and chair of the Biology and Society Program.

The entire university community is welcome to attend. Scheduled events include:

- Patrick Grisdale, director of the Exploratory Sciences Division of Eastman

Kodak Co., will speak on "Biotechnology: Triumph and Challenge" at 4:30 p.m. in the Biotechnology Building conference center. Richard E. McCarty will discuss research and technology transfer at the Cornell Biotechnology Program, where he is the director, and will introduce the keynote speaker.

- Poster sessions from 5:30 to 6:30 p.m. in the Biotechnology Building atrium will feature student research from biology honors projects and from the course, Recombinant DNA: Technology and Applications.

- Two concurrent panel discussions by students will begin at 6:15 p.m. on "Biotechnology in Agriculture and International Development" and "The Human Genome Project: Implications for Science, Medicine and Society."

- Two concurrent discussions by panels of practitioners will begin at 7 p.m. on "Careers in Biotechnology" and "Biotechnology: Discoveries at Cornell."

Graduate Bulletin



Graduate Student Council general meeting: May 1, 5:15 p.m., The Henry, Sage Hall.

Summer graduate registration: Submit forms beginning May 15 at the Graduate School information desk. Students must register if they are 1) receiving financial aid during the summer (such as summer assistantships or fellowships); 2) wish to use campus facilities during the summer; 3) are off campus but require credit for summer study. Registration must be done in person at the Graduate School. Graduate students who have been registered for a regular semester during the preceding academic year do not pay tuition for non-credit summer registration. Tuition must be paid for summer courses.

'Return a Gift to Wildlife' aids Cornell fish and bird studies

More than \$163,400 in research into the health and management of New York state's fishes and birds will be supported in 1989-90 at Cornell by public contributions to the Return a Gift to Wildlife Fund.

The research funds, allocated by the state Department of Environmental Conservation, come from voluntary contributions by state income-tax payers.

A total of \$1,764,453 was contributed from the 1987 tax year.

Among the 37 high-priority fish and wildlife projects to be funded are four at Cornell:

- The largest grant this year to Cornell, \$112,150, will help support a College of Veterinary Medicine study of pathological abnormalities in New York's fishes. One of the primary reasons for conducting this investigation is to determine whether chemical contaminants are responsible for abnormalities and, if so, to guide the DEC in regulating contaminants.

- The second year of a project to identify genetically unique wild populations of brook trout will receive \$38,900. Results of the study are expected to help DEC biologists in future protection and management efforts for the species.

- Also in the second year, an evaluation of piping plover management needs on Long Island will receive \$6,500. Cornell wildlife management specialists are studying the nesting success, habitat requirements and management needs of the endangered species.

- A grant of \$5,951 will support studies of genetic comparisons of rainbow trout strains. Cornell scientists will examine the variations between wild rainbow trout and a hatchery population of migratory steelhead to aid biologists in determining potential ramifications of New Jersey's intent to introduce steelhead to the lower Delaware River.

—Roger Segelken

Barton Blotter: Two-way radios, accessories stolen

Two portable two-way radios and accessories valued at \$1,714 were reported stolen from Statler Hall, according to the morning reports of the Department of Public Safety for April 17 through 23.

The theft was among 11 reported with losses totaling \$3,411, including \$524 in cash taken from a purse and two wallets.

Also reported stolen were two Pizza Hut signs worth more than \$50 each taken from delivery cars in separate incidents.

Four parking permits were stolen and one person was referred to the judicial administrator for forging a parking permit.

Other thefts included a backpack with \$445 in valuables, including a hearing aid and a calculator, taken from the area of the A.D. White statue on the Arts Quad and a \$400 class ring stolen from the Campus Store.

Computerized copies of the most current daily report may be called up on CUINFO under the title SAFETY.

Tasy continued from page 1

are conducted in the parish of the person being ordained.

Tasy, the assistant director of Cornell United Religious Work, is probably the first person to be ordained while working in campus ministry at Cornell, explained the Rev. Robert L. Johnson, director of CURW, an umbrella organization of chaplains and related religious activities on campus. Because Tasy thinks of the university as her parish, when it was time to pick the site for her ordination, she chose Sage.

"I'm relieved, not ecstatic; I'll get excited as it happens," Tasy said in an interview before her ordination. "It's been a long road to being ordained, and I came close so many times to turning back."

While her childhood imitations of the rector were the correct clue to her life's work, Tasy first wanted to be a dancer or a teacher. But she later turned down a dancing part for which she successfully auditioned because "I wanted to teach more seriously than I wanted to dance," she said.

After graduating from Keuka College, Tasy spent three years as a high school mathematics teacher in Baltimore before enrolling at the Protestant Episcopal Theological Seminary in Alexandria, Va. The Central New York Diocese requires seminary candidates who will receive financial support from the diocese to graduate from a four-year college and spend at least two years in an occupation before attending a seminary, she said.

Tasy graduated from the seminary in 1985 and was ordained a deacon.

She spent two more years teaching in Baltimore before

becoming assistant director of CURW last year.

"The church has always been like a family to me, a stable force in my life," Tasy said. "I could come up with so many stories [about wanting to become a priest]. It was just something inside of me that was coming out. It's always been a strong part of me."

"But I had second thoughts many times," she added. "When I was taking courses like 'Systematic Theology,' I thought, 'Why am I subjecting myself to this?'"

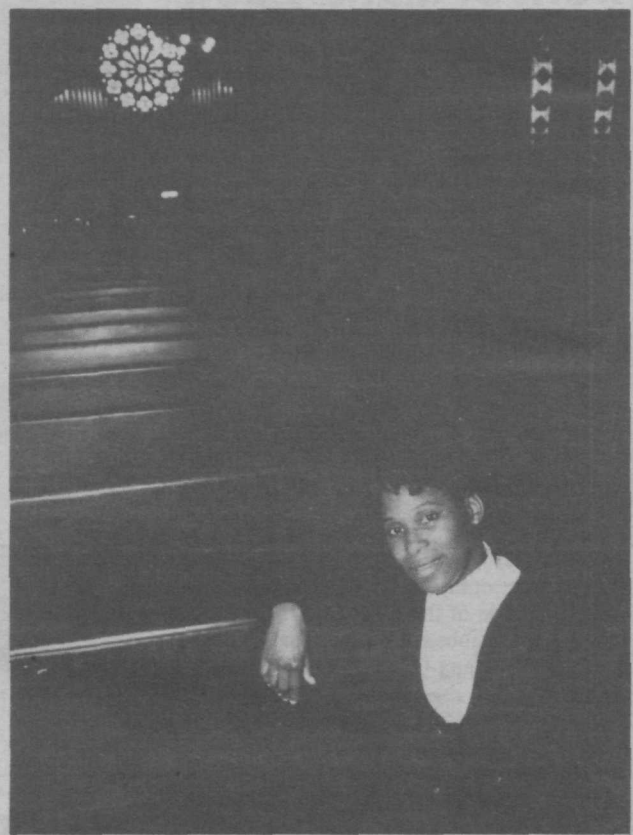
At Cornell, where she coordinates a staff of 25 chaplains, Tasy organized a Sunday evening worship service that incorporates African-American preaching style, music and congregational participation. She also is working to help ease racial tension on the campus.

"I expected some racial tension to be here," Tasy said. "Racial tension was easier to deal with in Baltimore, in the inner city, because here it's more subtle and not as violent. Here, people say: 'I don't have time to deal with this. I have to concentrate on my studies. I'm going to be out of here in four years.'"

"But in four years, they're going to go out there in the real world and then they're going to have to deal with it," she said.

Tasy explained that she wants to continue working in campus ministry several more years and then serve as a rector to a parish. Already she enjoys the name that her family — including husband Sandy, a school teacher and former Roman Catholic seminarian and five-year-old son Alexander — has given her: "the Rev."

—Mark Eyerly



Jill Peltzman

Beverly Tasy

'Cow-calf clinic' for beef producers planned for May 20

Between 150 and 200 beef producers from the Northeast will attend a meeting in Room 146 of Morrison Hall on May 20 to learn how to reduce feed costs to maximize profits in beef operations.

The "Cow-Calf Clinic: Summer Management Clinic" will focus on proper pasture management, production of forage crops, herd health and effective marketing programs, according to William M. Greene, coordinator of the clinic and a beef specialist in the College of Agriculture and Life Sciences.

Up to 60 percent of the total cost of beef production in the Northeast is feed. Therefore, minimizing the cost of feed is a must for successful beef operations, Greene said.

The daylong clinic will cover:

- Establishing and maintaining pastures and meadows that are economically feasible to cow-calf producers.
- Forage production: harvesting techniques, additives, storage and equipment needs.
- Beef marketing strategies.
- Herd health management programs.
- Update on the Beef Improvement Federation and beef breeding management.

Speakers are from Cornell's Department of Animal Science and the College of Veterinary Medicine, which are sponsoring the clinic jointly with Cornell Cooperative Extension.

Pre-registration is required for the clinic, and the deadline is May 8.

A \$10 fee will cover the cost of lunch and written materials. For more information, write to William Greene, 120 Morrison Hall, Cornell University, Ithaca, N.Y., 14853, or telephone him at 255-2856.

—Yong H. Kim

Tomato continued from page 1

the first appearance of an orange color. Then researchers add a minute amount of the polyamine "1,4 butanediamine," a naturally occurring compound present in all living things, including humans, animals and plants. They also have found that two other types of natural polyamines as well as the natural amino acid methionine and several other related amine compounds work to retard ripening.

The scientists infuse the polyamine or methionine through a process known as vacuum infiltration. Air is forced out of the fruit while it is in an air-tight container with the chemical solution. The chemical solution then is drawn into the fruit through the stem or stem scar when the vacuum is released.

The quantity of butanediamine or methionine needed to treat the fruit is very small — about 1 milligram per fruit. Davies noted that this is only about the same amount of these chemicals as is naturally present in the fruit. He added that both chemicals can be easily synthesized and that their cost is minimal.

The variety tested in Cornell experiments was Rutgers, a standard variety used widely in tomato research, but the method should work on most popular commercial

varieties grown throughout the country, Davies said.

Tomatoes taste best when they are allowed to ripen on the vine, but most tomatoes available in supermarkets during the off season are picked while still green, because ripe tomatoes are highly perishable. The typical shelf life of fully ripe tomatoes is about four to five days, not long enough for growers and processors to ship them from the farm to the supermarket, Davies pointed out. Because tomatoes are highly sensitive to chilly temperatures, they should not be stored in refrigerators.

The Cornell researchers got the idea of using polyamines to extend the "keeping quality" of tomatoes — the time tomatoes will retain top eating and storage quality — while studying an obscure Brazilian tomato called Alcobaca that has an unusual characteristic: Its fruit can hold its keeping quality for several weeks, a trait not seen in any U.S.-grown tomato. Alcobaca must be allowed to ripen fully on the vine, because it refuses to ripen if picked green.

In studies of Alcobaca, Cornell plant scientist Martha A. Mutschler, an associate professor of plant breeding, found that once this tomato is picked, the ripening process slows drastically. She then began studying

this Brazilian tomato further with Davies, a specialist in plant hormones.

Davies and undergraduate student Andrew R.G. Dibble analyzed the chemical compounds that might be involved in delaying the Alcobaca's ripening process. Results showed that the Brazilian tomato had levels of 1,4 butanediamine nearly three times that found in regular tomatoes.

"We think that this particular compound plays a key role in slowing the ripening process of the Brazilian tomato, but other plant hormones also may be involved," Davies said.

The Cornell researchers are tracking down other chemical compounds that may work in concert with butanediamine in slowing the ripening process.

Meanwhile, Mutschler is working to tap the unique genetic trait of the exotic strain to come up with new varieties that would have a long shelf life. She already has developed a number of breeding lines for use by plant breeders throughout the country.

The work by Davies and Mutschler is supported by grants from the the Cornell Biotechnology Program, the Frisch Foundation and the U.S. Department of Agriculture.

—Yong H. Kim

Budget continued from page 1

port, library acquisitions, and maintenance and utility costs. Undergraduate financial aid alone is expected to demand a 13.7 percent increased contribution from Cornell's budget next year, from \$15.6 million to \$17.8 million.

Barker also noted a planned cutback of more than \$1.1 million in investment income due to a reduced payout to allow for

better long-term growth in the endowment.

For all these reasons, he called for budget cuts next year that would range from 1.5 percent for academic programs to more than 5 percent for administrative programs.

In the meetings now under way, Barker, Nesheim and others are getting precise plans for how those cuts will be made.

Deans and division leaders also have

been asked to save 1 percent of the current year's budget, with a decision still awaited as to whether that money is to be returned to the central administration or may be kept against next year's expenses.

Nesheim said that the results of the current round of talks will be reflected in the final budget request presented to the Board of Trustees at the end of May.



Cornell Plantations

Inside:

- A Plea for Help
- Dream Job for Plant Lovers
- Flowering Groundcovers

Vol. 2 #1

Cascadilla Gorge Trail to Reopen

Cascadilla gorge trail will re-open later this spring. Construction is continuing on the stairwell below the Performing Arts Center and additional work has yet to begin further down the trail. No specific date has been set, but according to project manager John Reddington, Plantations expects to have the gates down by Cornell Reunion '89, in early June.

The trail has been closed because of flood damage since 1983. Repairs are being done exclusively "in house" by Cornell crews, Reddington said. Of the estimated \$99,000 needed to rebuild the entry trail and stairway, \$80,000 came from Plantations' Sackett Endowment. The remainder is being provided by the university.

According to Reddington, "a concrete bulkhead against the raging torrent of Cascadilla Creek" supports the stairwell and landing. The exterior of the concrete has been covered with a stucco-like material to make it more attractive. A more traditional stone veneer was considered and rejected

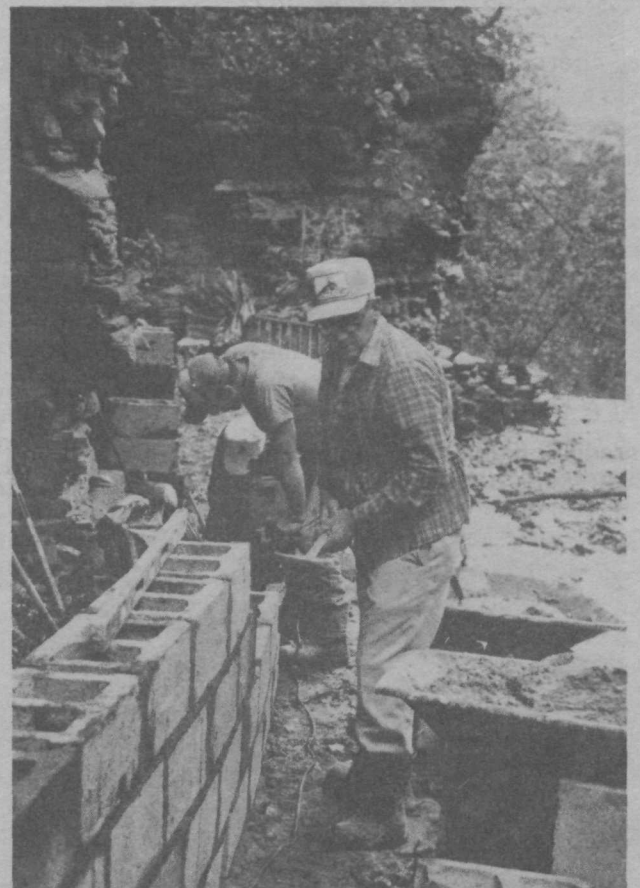
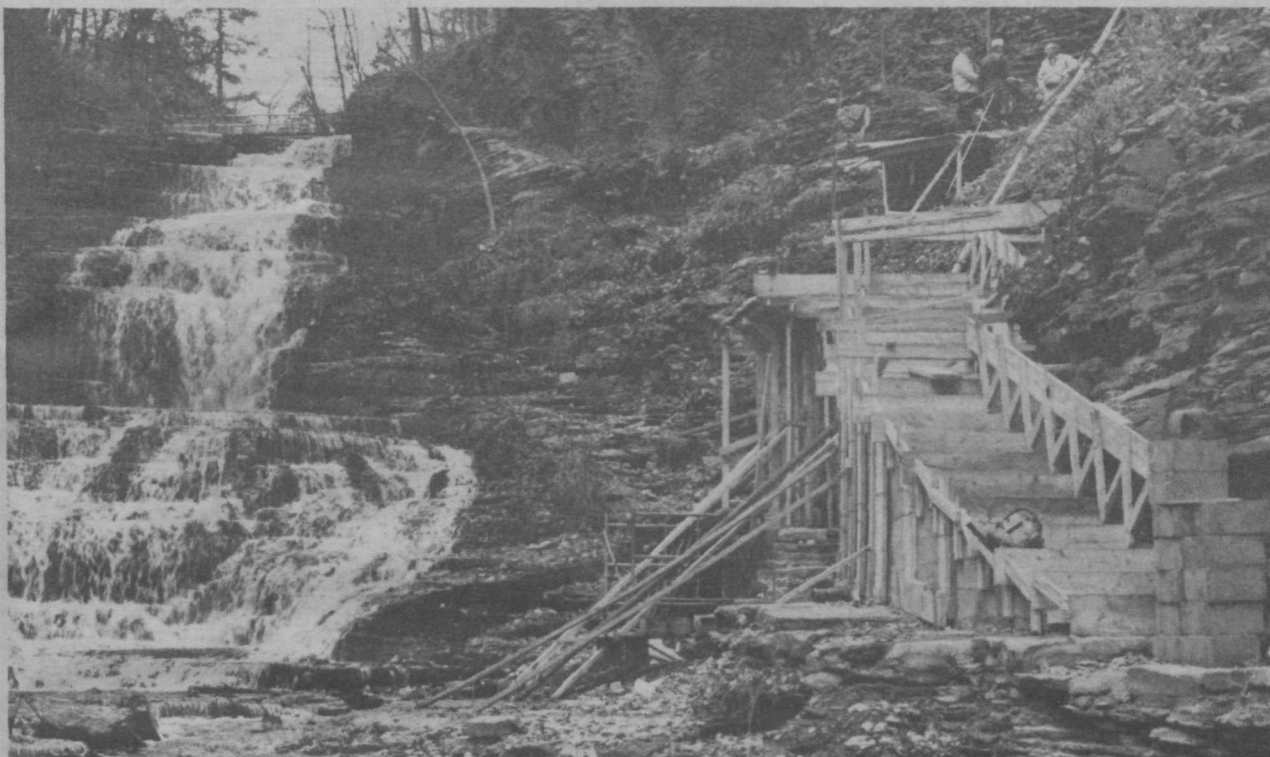
since it was not likely to hold up to the elements and the impact of debris from seasonal flooding.

Building the stairwell in the gorge was a logistical challenge. Materials have been hand-carried down into the gorge by the crews. Mortar for the stone work was mixed by hand on site. Reinforcing and scaffolding materials had to be carried back out at the end.

Recent vandalism has only slightly hampered the project's progress. A wall, four feet tall and five feet wide, was built on the landing on Wednesday, April 12, and destroyed by the following morning. The stone, thrown into the creek, was impossible to retrieve. New stone was carried down from above and the wall rebuilt. Other minor vandalism has occurred, including the painting of graffiti on new wooden railing posts and some earlier disruption of the construction site after work hours.

Spring Clean-up Day for Cascadilla Gorge is scheduled for Saturday, April 29th, from 12 to 3pm.

Linda Emmick of Plantations is coordinating the effort, co-sponsored with the Ithaca Neighborhood Council, as part of Collegetown Clean-up Day. Interested volunteers should show up ready to work on the morning of April 29th at the Collegetown Bridge entrance to the gorge.



Above: Ugo Spadolino and Tim Dunlap laying the block wall that supports the stairwell to the Performing Arts Center.

Left: All temporary construction materials, like the scaffolding in this photo, has been carried back out of the gorge by the construction crews.

Visitors Enjoy Guided Tours

The tour season is in full swing at Cornell Plantations, but there is still time to make reservations for your group to enjoy a guided walk or bus tour. The tour season begins in mid-April and lasts through October. No matter what your outdoor interest: natural history, horticulture, world foods, old-fashioned vegetables, alpine plants or other subjects, Plantations has a garden or natural area for you to explore.

Sign up right away for a guided walking tour of the native wildflowers in the Mundy Wildflower Garden. Learn about the ecology, life history, and conservation of our wildflower heritage.

Guided walking tours are available in any of the individual gardens: Bowers Rhododendron Collection, American Peony Society Garden, Robison York State Herb Garden and other gardens in season. Tours that focus on a special topic can also be arranged.



Overview bus tours can be arranged for any season. This tour provides the visitor with a wealth of information about the 200 acres of land under horticultural maintenance at Plantations.

Group tours are available on weekdays and weekends. Each tour takes about one hour, but additional time should be allowed for individual exploration and for browsing in the Garden Gift Shop. There is a charge of \$2 per person, with a minimum charge of \$30 for each group tour. Registration and a deposit of \$15 must be received three weeks prior to the tour date.

—Raylene Gardner

Wildflower Day
Sunday, May 21st
1 to 4 pm—FREE
Tours, puppet show, activities
plant sale
Caldwell Road entrance to
Mundy Wildflower Garden

Recommendations for Dog Owners

Spring is in the air, and most of us are getting outside, after the long winter, to enjoy it. Accompanying many of us is man's best friend—our faithful dog. While we enjoy a stroll along the highways and byways of Ithaca, our faithful friend is doing what comes naturally. We, of course, are proud of our dog because, heaven knows, we don't want him to go in the house.

The area, however, is shared by so many of us and our dogs that something has begun to happen. This year, the staff at Plantations have seen more dogs and their owners enjoying themselves on Plantations grounds—and in Ithaca. We've also seen something we are sure many of our visiting dogs and their owners aren't aware of: damage to young trees and piles left behind for other visitors to discover unwittingly.

Imagine, if you will, the family who gave three young cedars in memory of their father and grandfather. This year, when they visit Plantations, they will find gaping holes where branches were cut away because of urine damage. Imagine the professor and his class who come to view a specimen of global arbovitae. They find a shrub shaped more like an umbrella than the globe for which it is named. Imagine the crying two-year-old who just slipped and fell in a "pile."

At Plantations, we enjoy our visiting dogs. Now man's best friend needs his owner's help. Please, when you walk your dog, carry a baggy or two in your pocket or recycle a plastic



Linda Emmick and buddy, Munchkin, attend obedience classes offered by the Ithaca Dog Training Club.

bag from the market. When your dog does his duty, you can easily clean it up using the bag. The bag and its contents may then be left in one of the many trash containers found on Plantations grounds. And if the dogs are discouraged from using young trees and shrubs for hydrants, it will cut down on plant loss.

We ask you to join us in caring for Plantations and all of the grounds where you exercise your dog—so that everyone may enjoy their visits. Please help us keep Plantations beautiful, and keep our dogs popular with the whole community.

—Linda Emmick

Course Information

SPRING WILDFLOWERS

Get out this spring with botanist Dr. William Dress to learn about our native and non-native wildflowers. Field trips will explore different habitats, including a bog and a glen. Students will learn what makes each wildflower special and unique, its natural history, its name derivation, and lore. Come dressed for the weather and plan to car pool to sites around the area. An additional, bonus field trip will be scheduled at a later date.

FIELD TRIPS: Saturdays, May 6, 20, 27, June 3 - 8:30 A.M. to 12 Noon
FEE: \$45

HISTORY OF CAYUGA LAKE

Enjoy the stunning scenery of Cayuga Lake with Plantations editor John Chiment, while learning how the lake has changed through the ages. The local history, fossil history, and geological story of our region will be retold as we follow the shorelines of the lake. This interpretive tour-trip will make brief stops at different points of interest along the way. We will have lunch at Taughannock Falls. Bring your own lunch and beverage.

FIELD TRIP: Saturday, May 20
9 A.M. to 2 P.M.
FEE: \$19

CORNELL'S FOSSIL HISTORY: A BICYCLE TOUR

Find fossils in the walls of campus buildings; stop beside a hanging delta; follow the shoreline of a long-vanished sea with Plantations editor, John Chiment. This class will bicycle through the Cornell University campus exploring the area's geologic history. No major hills, but all participants need to bring their own bike (10-speed recommended) and a helmet. Rain or shine.

FIELD TRIP: Saturday, June 17
8:30 to 11 A.M.
FEE: \$10

COURSE REGISTRATION

Registration, information, and forms are available at the Garden Gift Shop in the Lewis Headquarters Building, One Plantations Road, Ithaca, New York 14850. Class size is limited, so advanced registration is required. Checks may be sent by mail or delivered in person. Members receive a discount on course fees.

For more information on courses call 255-3020.

News Briefs

Sand-carved Sign Returns—

Cornell Public Safety Division notified Plantations on Monday, April 17th, that the sign, stolen from the Beebe Lake entrance to Plantations over a week before, had been returned to them anonymously. The sign will be repaired and re-installed as soon as possible. Plantations staff express their thanks to all who voiced their concern. In addition, Plantations would appreciate information leading to the return of the other sand-carved sign, stolen last fall from the Flat Rocks entrance and of other redwood signs recently taken from the International Crop and Weed Garden and Wildflower Garden.

Lecture Series—

Fundraising for the Audrey O'Connor Lecture Series is proceeding and the first annual lecture is being planned for October, 1989. The speaker will be Rosemary Verey, noted British horticulture author. Donations to the fund honoring Audrey Harkness O'Connor, long-time editor and friend of Plantations, are welcomed and should be forwarded to Public Affairs Assistant, Linda Emmick.



Auraca members, Virginia Lance, Audrey O'Connor, and Eloise Blanpied (left to right) select examples, like the one at right, from the Language Of Flowers books of the Zucker Collection to display in Mann Library in conjunction with the seminar on May 12th.

New Books—

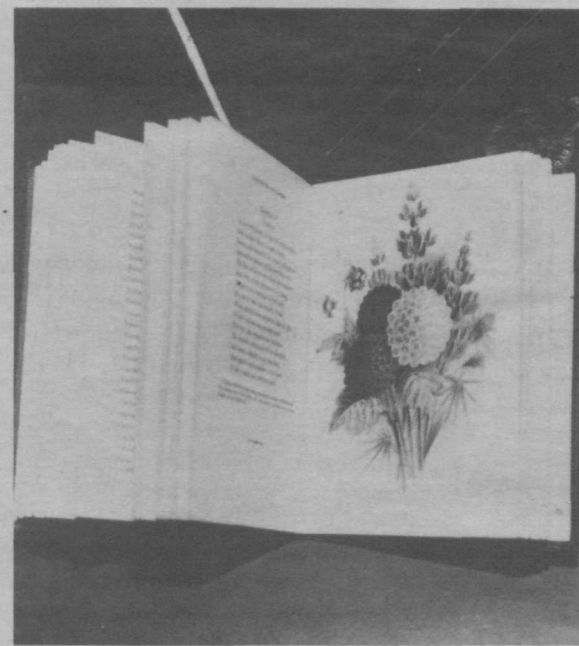
John Kingsbury, Professor Emeritus of Botany and former director of Plantations, has published a new book valuable to any tropical traveler. *200 Conspicuous, Unusual, or Economically Important Tropical Plants of the Caribbean* is a guide to tropical flora designed to be used by travelers that find themselves in this new and curious world. Every entry is accompanied by at least one color photo and all the prints are on the right-hand page making it easy for someone to skim the illustrations in search of the desired plant. Published by Bullbrier Press, this soft-cover guide is available at the Garden Gift Shop, for \$20.00.

Marvin Adelman, professor of Landscape Architecture and Plantations Advisory Board Member for many years, has written a refreshing guide to home landscaping entitled *Liveable Landscape Design*. Published as Cornell Cooperative Extension Bulletin #1411B 211, it is available from the Garden Gift Shop for \$9.50.

Seminar, Exhibit, and Tour—

the Zucker Horticultural Collections will be featured in a series of events taking place on Friday, May 12, 1989. There will be a seminar at 1:30 pm given by author Doris Swarthout, on the language of flowers and featuring the collection of books on this subject donated to the library by the late Isabel Zucker, '26. Mrs. Zucker and

her husband, Myron '25, were active supporters of Plantations for many years, serving as sponsors and donating numerous gifts over time. At 2:30 refreshments will be served at a reception in the lobby of Mann Library for the opening of an exhibit featuring a selection of these rare books. The day will end with an optional tour of the Zucker Shrub Sampler at Cornell Plantations guided by Mary Hirshfeld, curator of the botanic garden. The afternoon is co-sponsored by Alfred R. Mann Library, Cornell Plantations, and AURACA (Aurora and Ithaca Herb Society). These events are free and open to the public. For further information call Mann Library, Collections Development at 255-6919.



Surrounded by Groundcovers

Visitors to the Lewis Headquarters Building at Cornell Plantations may enjoy flowering groundcovers year-round—from the early spring cheer of the lenten roses (shown below right) to the fall and winter grace of the ornamental grasses. Many in the community may remember the original collection which was limited to shade-tolerant groundcovers featuring an elegant display of hostas spread out beneath the Scotch pines and big-leaved magnolia (top-left of photo at right).

In 1983, Plantations staff decided to dress up the headquarters by expanding the collection to circle the building and renovating the original shaded site. The selection of plants for any given collection or garden at Plantations is guided by a collections policy, a stated concept of what kind of materials should be included. In the case of the Groundcover Collection, this policy has expanded with the site. Today, the collection includes flowering perennials with potential for use as groundcovers in a small scale planting for a variety of sites. It is a more comprehensive display with increased educational value to the hobby or professional gardener.

Hostas remain emphasized as the "backbone" of the garden, partly because these particular ones already have their own local fan club. During the renovation, while they rested comfortably in the nursery, Plantations received many inquiries into their whereabouts and well being. Most importantly, however, they were originally an excellent selection for their shaded location. Hostas are long lived and neat in appearance for most of the season. Once established, they form a dense arching mass of foliage that shades out competing weeds, requiring little maintenance.



Plants selected to fill the niches in the garden must fall into one of three growth habit categories in order to be considered suitable. Some may be densely and impenetrably tufted, eventually forming communities of hummocks difficult for weeds to invade. The tufted hair grass growing near the shop entrance will exhibit this style as it matures. Others may be strongly rhizomatous mat-formers, spreading by underground stems that send up growth shoots. *Pachysandra* is a classic example of this growth habit. Or they may produce wide arcs of foliage that successfully shade out weeds like the hostas and, perhaps the most popular plant in the gardens these days, the bears' breech, *Acanthus spinosissimus*. Often a plant, such as the rhizome-forming bear's breech, may have more than one of these characteristics. So much the better.

Not only do the plants in the groundcover collection have to grow like a groundcover, they must be attractive in their own way and perform well in the site for which they are selected. Cultivars (cultivated varieties) have been selected for their flower color and for the texture and color of their foliage. Because the complements of these characteristics are so important in any garden, moves and changes are inevitable as the relationships emerge between plant masses. In addition, some selections may not thrive where unanticipated microclimates exist.

Today, daylilies and coreopsis brighten up the sunny entrance to the Garden Gift Shop. Behind them nodding white spires of gooseneck loosestrife bloom during late summer. Starwort, *Astrantia*



major, is on the shady west side of the building. Native to Switzerland, this delicate flowering groundcover has only recently become popular in the states. The pinkish flowers have a papery texture and dry easily for use in wreaths and arrangements. Other plants that one might not ordinarily consider groundcovers, such as Japanese anemones and Siberian Iris, surround the building.

Nancy Adams, gardener for the Groundcover Collection at Cornell Plantations, has prepared a list of current sources for the plants in the collection. This is available in the form of a Fact Sheet and may be obtained at the Garden Gift Shop. The Fact Sheet program is supported by the Natural Heritage Trust of New York State. Anyone wanting to get multiple copies for educational purposes should call the shop and give advance notice.

One White Collar, One Blue

In the spring of 1982, Donna Levy began gardening at Cornell Plantations. A recent graduate of Cornell in Plant Science, Levy had focused on agriculture in college. She viewed this job as an opportunity to pursue her personal interest in wildflowers. This proved to be true and she is now about to begin her seventh season caring for rare and common native plants in for the Mundy Wildflower Garden.

The gardener for a particular collection is responsible for its overall care, maintenance and interpretation. Levy currently manages the Heasley Rock Garden and the Pounder Heritage Garden, along with the wildflower garden. She describes her job as one where "I wear one white collar and one blue." This mix of physical work and intellectual challenge makes a gardening position at Plantations seem like a dream job to many people.

The position of gardener is a union job at Plantations. When Levy came there were only two such jobs. Levy is pleased that her position has been upgraded two times.

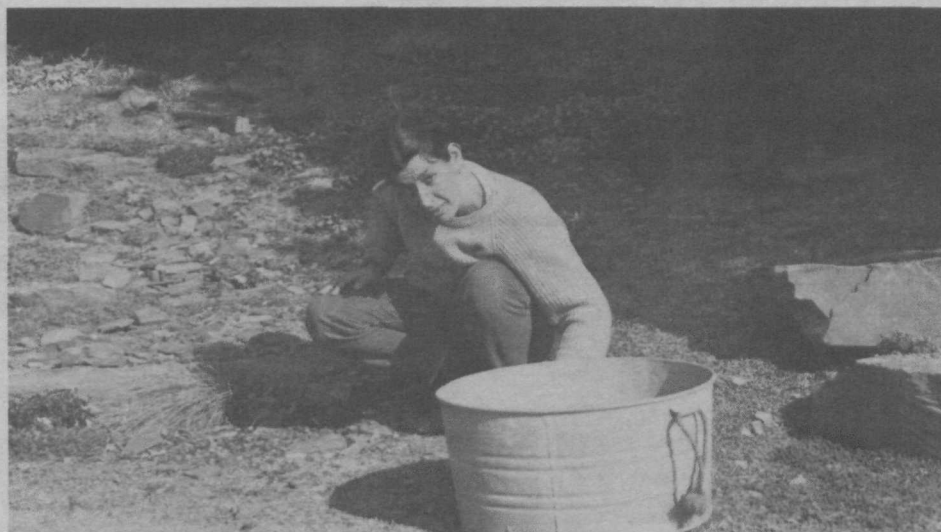
As a gardener, Levy's winter is spent researching and writing interpretive text for articles, slide shows, flyers and garden labels. Before each season, gardeners order replacement or additional plants, making sure that the records are kept

on each from the moment it arrives. In Levy's case, she also propagates some plants, from seeds or cuttings, for the gardens that she manages.

When the weather improves, the gardeners pick up their shovels and wheelbarrows and begin the physical labor of the growing season. Part of each week is set aside for them to see to their individual collections. For Levy, this is the time to record and post the order of bloom listing for the wildflower garden and set out the wooden labels for those plants that have just begun to bloom.

The rest of the week is spent working as part of various crews, dividing, planting, mulching etc. Although the work is hard the conversations among the crew members are some of the most interesting in town. Digging and weeding are often accompanied by discussions of current issues in politics, philosophy, and softball.

Over the past six years Levy has been responsible for a number of gardens including the Groundcover Collection, Treman Woodland Walk, and the Muenscher Poisonous Plant Collection. She has had the chance to learn a great deal about the culture of plants in a variety of landscape settings, ranging from the informality of the wildflower garden to the formal, rectilinear beds of the poisonous plants. Levy says she enjoys



Donna Levy carefully grooms the Heasley Rock Garden in the early morning light. Delayed by the cool spring, the rock garden is in full bloom this week—don't miss it!

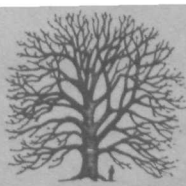
the latter because "it's nice to have the plants stay where they're supposed to be" instead of wandering around the garden.

Beginning this season, she has been transferred from the woodland walk and the poisonous plants collection to take on the job of growing the crops and flowers for the Pounder Heritage Garden. With this move she returns to the study of agriculture, appropriately so, as she has recently purchased a farm in Interlaken and will be once again gardening at home.

The wildflower garden is Levy's favorite because "it is so special to so many people." She suggests that visitors this year keep their eye out especially for the Virginia bluebells. Last year they only lasted one week. She encourages people to come often.

When asked if she would like to change the name of any plant in the garden, Levy immediately picked the false Solomon's seal, saying it deserved a name in its own right rather than one describing what it is not.

The wildflowers will soon be reaching their peak of bloom for the year. Levy will be giving special tours of the Mundy Wildflower Garden at Wildflower Day, on May 21st. She is also preparing a display on habitat conservation for this event and will be available to answer questions when not leading a tour. Information and a schedule of activities for the day will be available at Plantations new service building near the Caldwell Road Entrance to the garden. This event is open to the public, free of charge, from 1 to 4 pm.



Cascadilla Gorge



CORNELL PLANTATIONS • ONE PLANTATIONS ROAD • ITHACA, NEW YORK 14850 • (607) 255-3020

Probably the first people to encounter Cascadilla Creek and its "little cascades" were the Cayuga Indians. There is reference in the records of settlers who arrived in the late seventeen hundreds to setting up their farmsteads on abandoned Cayuga cropland at the base of the glen. This location is the site today of the First Church of Christ Scientist and Treman Triangle Park at the bottom of University Avenue.

Water from a dam in Cascadilla Glen, below the Theory Center, was diverted into Willow Pond, today the site of the Performing Arts Center, to power Eddy's cotton mill on the gorge's edge. In the 1860's the mill was mostly torn down and the site used for the construction of Cascadilla Hall, the recently renovated graduate residence. Tons of rock were quarried from the gorge below to build a water cure hospital and medical school for young women. However, before construction was complete, the project was transformed into the university's first housing for students and faculty.

Cascadilla Glen and Gorge had several owners and development was threatening at several sites and in a variety of ways. Over a six year period, four bridges had spanned it. Houses were encroaching the edges.

Concerned university alumnus and trustee, Robert Treman, as a member of the Cascadilla Company, began to purchase the private lands of the gorge below Stewart Avenue. Among these were a flouring mill and the accompanying land upstream. These parcels were turned over to the university with the understanding they be preserved as a park. The entrance at the base of the gorge, known today as Treman Triangle, was the personal gift of Mr. Treman and his wife in 1926.

In 1915, as the Cascadilla Company was buying up land, another trustee, Colonel Henry Sackett, joined Robert Treman in actively supporting the preservation of Cascadilla Gorge. Both men had lived in Tompkins County as children and their love of the gorges went beyond their affiliation with Cornell.



The above photos of Cascadilla Hall (c. 1868) and Willow Pond courtesy of Dept. of Manuscripts and Archives, Cornell University.

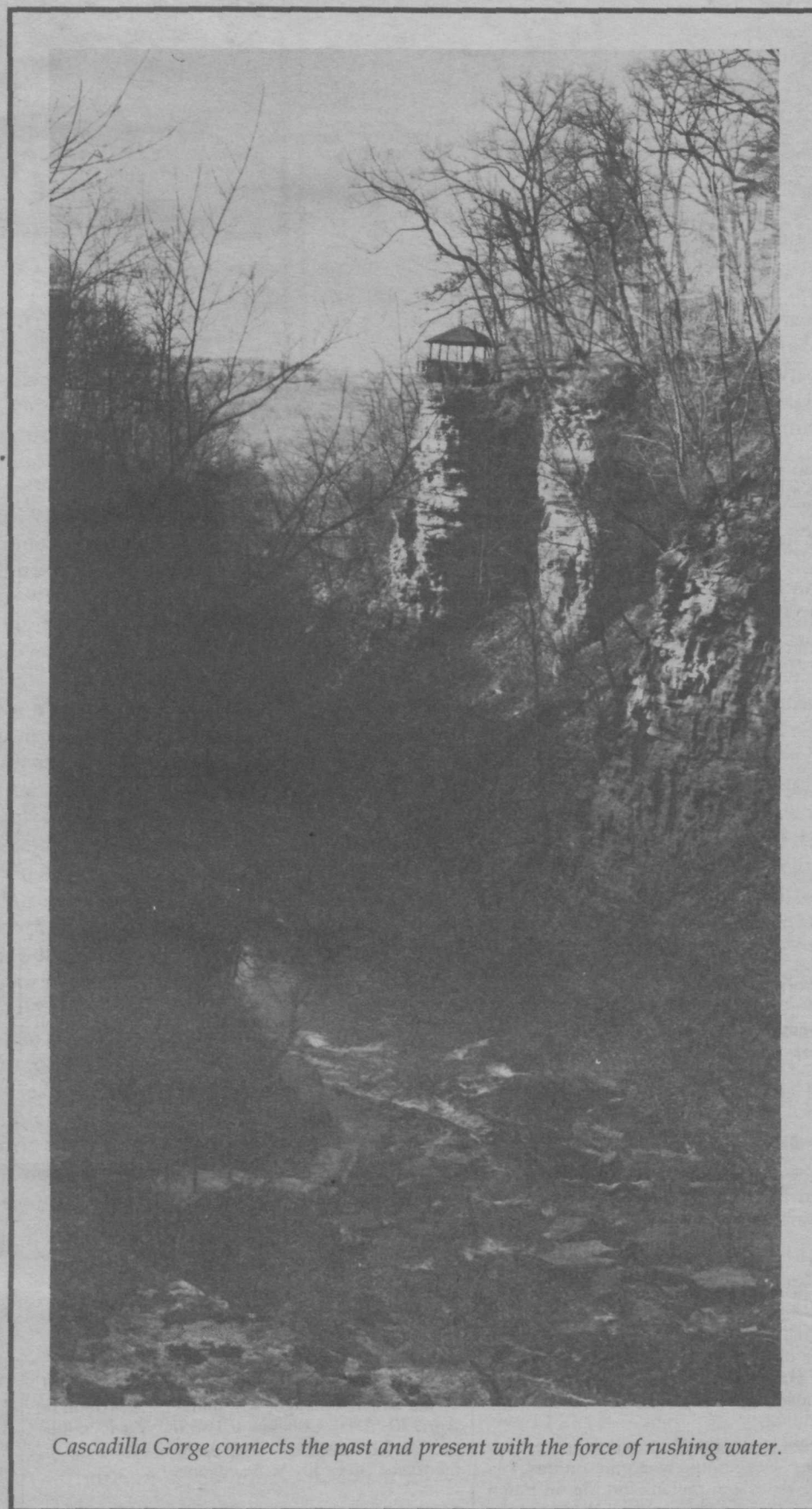
The mill pond continued to unreliably supply running water to Cascadilla Hall, which maintained outdoor privies as well. With a pigsty and old mill in its yard, according to historic accounts, "The Cascadilla" was not a very popular or attractive place to live. In the university's earliest days, students and faculty hiked down into the gorge, across the stream, and up the other side to attend classes in what is now West Campus.

Although always revered for its natural beauty, Cascadilla Gorge is perhaps more natural today than it was at the turn of the century (1903) when the board of trustees committed the university to "preserve [its] natural beauty and to do nothing that will destroy or detract from [its] picturesqueness..." At the time,

These two men served together on the Board of Trustees for over 20 years and worked together to establish the precedents which today protect Cornell's natural beauty.

Preserving the gorge was not as simple as buying it up and turning it over. Colonel Sackett had the foresight to begin immediately a study of the glen and present a long-term plan for its educational use and preservation. His plan was approved by the Cornell Board of Trustees. Nothing happened, however, until 1924, when he personally assumed the financial burden for the "development and beautification of the gorges." His contribution ultimately amounted to \$250,000 in the dollars of 1927, as much as \$4 million in today's.

When Colonel Sackett took over the project, landscape architect



Cascadilla Gorge connects the past and present with the force of rushing water.

Bryant Fleming was retained to prepare a plan. First, the man-made scars had to be cleaned up. Dead trees, the remains of the flouring mill, and household wastes dumped down its banks were removed. It was at this time that the unique ecological and educational values of the gorges were outlined clearly for the whole university. Concerns were voiced for the safety of rare plants, native animals, and the geologic integrity of the glen. The faculty became involved in the selection of plant materials and it was decided that everything should be native and appropriate to the site. During construction personally overseen by Robert Treman, great care was taken that the beauty of the natural formations be retained and that the work be of the highest quality. Trail construction was complete by the end of the decade.

Floods and construction crews continue to take turns rearranging the stones along the banks of Cascadilla Gorge. Hurricane Agnes, in 1973, caused severe washouts and students worked with the crew of Cornell Plantations the next summer to reconstruct the stairs and walls,

literally carrying the gorge's rocks back up the creek. The trails are often closed after severe events. Sackett's generous donation included an endowment for maintenance and repair, but it can take several years for enough funds to accrue for major projects. In 1983, the trails were so severely eroded by high water and debris that Public Safety closed them until repairs could again be completed. This time the major project of rebuilding the stairway by the Performing Arts Center was included in the plan along with extensive reconstruction of railings and stairs down the walk to Treman Triangle.

Every spring, workers remove the scree (rock debris) fallen from the gorge walls and patch damaged stonework. Volunteers from the community help carry trash out and clear the trails of flood debris. Trail maintenance is an ongoing project.

Cascadilla Gorge continues to be an important refuge, offering a cool break from the ever increasing pressures of life in the Cornell Community. A place where lovers return and memories are made.

—Margaret Corbit

CORNELL EMPLOYMENT NEWS

April 27, 1989

Including Job Opportunities

Volume 1, Number 16

Pursuing Career Opportunities: How to Prepare a Resume & Cover Letter

The university seeks to provide maximum opportunity for job mobility and promotion from within, consistent with its commitment to affirmative action and equal employment opportunity. The Office of Human Resources is committed to helping employees pursue career opportunities throughout the university.

"I've seen a job at the university that interests me... I know I can do it well. How do I get it?"

This article provides guidance for employees interested in pursuing career opportunities at Cornell, including helpful hints on how to become a competitive candidate.

To apply for internal positions you will need:

- A completed Employee Transfer Application, which you can get at Staffing Services, 160 Day Hall, or by calling Staffing at 5-5226 to request one;
- An up-to-date resume;
- A cover letter.

How do I apply for another position within Cornell?

To apply for a job posted in "Job Opportunities," which is published every Thursday in this paper, complete an Employee Transfer Application.

Your Employee Transfer Application should be completely and neatly filled out in pen or typewritten. Check carefully

for typing or spelling errors. Be sure to sign the form at the bottom of section A.

A cover letter explaining why you are interested in the job and why you believe you are qualified for the job should be included when you submit your transfer packet.

Attach your resume and cover letter to the Employee Transfer Application and submit the entire packet to Staffing Services, 160 Day Hall. If you are competitive for the position, Staffing Services will forward this material and your Employee Transfer Application to the hiring department and return a copy of the application to you.

You must have worked in your current position for nine months before you may transfer to another position, unless your current supervisor approves your search for another position in writing. This letter of permission, along with your other materials, should be attached to your Employee Transfer Application and sent to Staffing Services.

Submit your paperwork as quickly as possible. Positions can be filled one week after being advertised in "Job Opportunities."

Within approximately one week, your copy of the Employee Transfer Application will be returned to you. If you were competitive for the position and your materials were referred to the hiring department, it will specify the referral

Continued on page 4



Disability Notebook

by Joan Fisher, coordinator of Disability Services

Richard C. Buckingham is an employee in the Undergraduate Office of Admissions who has a hearing disability. He is presently a member of the Employee Assembly and will be joining the Personnel Policy Committee when his assembly term expires. I'm pleased that he has agreed to educate the rest of us on how to best relate and communicate with the large segment of the population who have hearing disabilities.

Hearing Impairments

With more than eighteen million people in the United States today with some degree of hearing impairment and with more than two million of those being profoundly deaf, the chance of meeting a deaf or hearing impaired person is a real possibility. How would you act? How will they act? What can you do to make communication easier and better? What should you know so as not to offend that person when you meet? By being prepared for that situation the meeting will be more comfortable for both of you. There is a great deal of mystery associated with hearing impairment and at the same time there exists an unwarranted fear of deaf people.

You can't "catch" deafness; we do not need to use braille; we can cross the street alone; shouting will not help facilitate better communication; and we are not deaf and dumb (or mute). These are but a few of the misconceptions harbored in regard to deafness and deaf people. While it is true that some pre-lingually deaf people lack language skills, many speak with great proficiency and still others make the choice not to vocalize.

Disabilities in general are viewed with some skepticism but hearing impairment seems to have a special place. The reason is that hearing impairment is an invisible disability. Wheelchairs and guide dogs are a sure sign of a disability, but with hearing loss, there is no clear indication. With hair styles tending to be longer and advancement in technology making it possible for hearing aids to be smaller and fit in the ear, you can't tell without obvious scrutiny that a person wears one. A hearing aid is one positive indication that the wearer is hearing impaired, but what of the person who is not benefited by the use of one and chooses not to wear it? Assume that you have approached such a person. How would you assess that person's lack of reaction, failure to respond to your query or

Continued on page 4

* * *

Relay Service Available

Since January 1 of this year, the New York Relay Service has opened a new world of communication for persons with speech and hearing impairments.

The system enables them to communicate with individuals, businesses, or professional offices via a third party intermediary. The 24-hour relay system is operated by AT & T and is funded through the 41 local telephone companies in the state. The system allows a person who uses a telecommunication device for the deaf (TDD) to call a statewide toll-free number (1-800-662-1220) to reach a specially trained communications assistant. The assistant will see the caller's message on a computer screen, call whoever the TDD user wishes to reach, and then relay the message. The assistant will also relay information back to the TDD user.

The system can also work in reverse. A person who is not hearing or speech impaired can call another statewide toll-free number (1-800-421-1220) to reach a communications assistant. The assistant can then call a TDD user and relay a message between the two parties.

The assistants are trained to accurately type the calls and to convey the tone of the message—if a caller is mad or happy, for instance, the assistant will convey it. Messages are not censored and are strictly confidential. Assistants will not give advice or offer an opinion.

Calls placed through the relay service are billed as regular calls. Customers who are certified as speech or hearing impaired are entitled to a 50% discount on calls. Presently the system is only available for calls within New York State; however, plans are being developed to provide interstate relay services.

Career Development Planning: A Two Way Process

by Rahat Idrees, career consultant, Training and Development

Today we hear a lot about career development issues, solutions, programs and approaches because of the changing attitudes of employees toward work and career. We have more choices and more options than ever before and yet, competition for those positions is greater than ever before.

Career development means different things to different people. To some it means upward mobility, to others it means finding work that brings satisfaction and an increased use of their talents. To still others it means bringing about results that contribute to a better world and for some even a downward move to gain different skills. By whatever definition, each of

us can be more effective in our personal and professional lives with new skills and approaches.

Employees' varying attitudes toward work and career cover the entire emotional spectrum - from high motivation and satisfaction to low motivation and cynicism. Nevertheless, all employees look to the workplace for some degree of satisfaction and without organizational support, it may be hard for some to achieve that goal. It is, therefore, the responsibility of an organization to provide an environment and resources that encourage employee growth and satisfaction. Failure to do this usually causes some employees to resign (figuratively or literally). Such activity obviously represents a loss for the organization.

Career development programs not only provide direction and advancement opportunities for employees, they enable organizations to plan for future organizational needs. Properly designed career development programs offer a number of advantages. For an institution of higher education or any organization, the primary benefits include establishment of a more qualified pool of employees and the identification of employees with management potential.

For employees, the benefits of such a program include opportunities for more varied job duties, advancement within the institution and increases in responsibility, mobility and skill level. Additionally, employees reap personal rewards, such as greater job satisfaction and visibility, better access to a variety of opportunities and a shift in emphasis from merely mastering one function to developing a career. In most cases, the employee will also benefit from this improvement in employee outlook.

Continued on page 4

Service Awards Banquet Honoring Long-Service Employees Scheduled for June 13



The 34th annual service awards banquet to honor employees with 25 years or more of service to Cornell will be held this year on Tuesday, June 13 beginning at 5:45pm in Barton Hall. Eligible employees will receive invitations at their home addresses in early May.

This year approximately 100 long-service employees will be honored for 25, 30, 35, or 40 years of service. Over 300 other employees with over 25 years of service but not on a five-year increment (26, 27, 28 years, etc.) will be invited as special guests.

It's in the Mail: Your Benefits Summary

"Your Personal Summary of Benefits" - a benefits statement with information on your individual election of benefits and other personal information was recently mailed. This summary estimates the annual value of the benefits you would be required to pay for various plans if you paid the employer's costs yourself. Reply cards are enclosed for your convenience in case any information needs to be corrected. Watch for your summary to arrive at your home address.

Job Opportunities

April 27, 1989

Volume 1, Number 16

Staffing Services, 160 Day Hall, Cornell University, Ithaca NY 14853-2801
Day Hall: (607) 255-5226 East Hill Plaza: (607) 255-7422

Employees may apply for any posted position with an Employee Transfer Application. A resume and cover letter, specifying the job title, department and job number, is recommended. Career counseling interviews are available by appointment.

Requests for referral and/or cover letters are not accepted from external candidates unless specified in the ad. Candidates should submit a completed and signed employment application which will remain active 4 months. Interviews are conducted by appointment only.

Professional

Non-academic professional positions encompass a wide variety of fields including management, research support, computing, development, finance and accounting, dining services and health care.

Submit a resume and cover letter for each position, specifying the job title, department & job number. Employees should include an Employee Transfer Application.

Budget Director (PA6505) HRII
Dean's Office, College of Arts and Sciences-Endowed
Support Director of Administration in the area of budget development, financial analysis, financial control/audit, and financial system development and maintenance. Manage budget and accounting operations of the College.
Requirements: MBA or other related advanced degree, or equivalent. Extensive experience (minimum 3-5 years) with university financial systems and budgets. Strong skills in financial analysis and audit procedures. Thorough familiarity with spreadsheet software. Ability to design and implement projects independently. Send cover letter and resume to Cynthia Smithbower by May 12.

Associate Director, Major Gifts (PA6504) HRII
University Development-Endowed
Responsible for assisting the Director with the management, coordination and execution of major gift fund raising initiatives which are oriented toward individuals who have the capacity to give \$1 million or more.
Requirements: Bachelor's. Minimum 3 years experience in capital fund raising, institutional advancement in higher education, or professional volunteer management. Knowledgeable and experienced in educational fund raising or other volunteer oriented work. Strong management, interpersonal and writing skills necessary. Must be able to work well with faculty administration, trustees and the senior volunteer leadership of the university. Send cover letter and resume to Cynthia Smithbower by May 12.

Director of Leadership Gifts (PA6506) HRII
University Development-Endowed
Responsible for the identification, solicitation and cultivation of gifts from alumni and friends of Cornell who have the capacity to make gifts in the \$25k-100,000k range. Develop new programs working closely with the Cornell Fund, Cornell's college and Unit Public Affairs Officers and the Regional Offices to facilitate such gifts.
Requirements: Bachelor's. 2-3 years Development experience and work with volunteer group organizations including Annual Fund or individual giving experience is required. Ability to communicate effectively and persuasively. Excellent writing and communications skills, successful gift solicitation experience, and prospect management expertise are highly recommended. Excellent organization and management skills. Send cover letter and resume to Cynthia Smithbower by May 12.

Purchasing Agent III (PA6501) HRII
Purchasing-Endowed
Select, purchase, prepare specifications and bids for equipment, supplies, and/or services for 1 or more university departments.
Requirements: Bachelor's in business or related field. C.P.M. certification preferred. Minimum 4-5 years purchasing experience required. Commodity expertise in electronic equipment and supplies desired. Send cover letter and resume to Cynthia Smithbower by May 12.

Assistant to the Director for Finance and Business Services for Statutory Audits (P5101) HRII
Statutory Finance and Business Services-Statutory
Assume responsibility for the management and coordination of Cooperative Extension and oversee the statutory college internal audit function which conducts financial, operational and compliance audits of its four partially State-supported colleges. Reporting to the Director of Finance and Business Services, the incumbent works with Cooperative Extension administrative and Association personnel, statutory financial administration, and the Office of the University Auditor.
Requirements: Bachelor's in accounting, business administration or related area, and a minimum of four years of significant and responsible experience in public, industrial, government or higher education accounting or auditing. CPA certification or active pursuit of certification is required. Excellent oral and written communications skills with a demonstrated ability to work effectively within a highly complex and challenging environment is essential. Knowledge of State University of New York accounting/financial procedures and practices or college/university research experience is desirable. Knowledge of mainframe and personal computer system applications is required. Overnight travel of at least 25% in NY State. Send cover letter, resume, salary history and three professional references to Cynthia Smithbower as soon as possible.

Research Support Specialist III (PT4109) HRII
Veterinary Pathology-Statutory
Manage flow cytometry lab. Supervise staff and activities; design, execute and coordinate research protocols; provide technical assistance; determine equipment and supply purchases; assist with grant proposals writing and co-authoring manuscripts.
Requirements: Master's in biology or physical science or equivalent. Minimum 5 years related lab experience strongly preferred. Send cover letter and resume to Bill Webster.

Applications Programmer/Analyst III (PT5502) Lvl 34
Mechanical and Aerospace Engineering-Endowed
Responsible for development of a large program for use by a Cornell research group. Project will involve interactive computer graphics, data base concepts, distributed processing and use of the Cornell supercomputer. Facilities include Iris and Sun Workstations and micro-vaxes.
Requirements: Bachelor's or equivalent in relevant field, 3-5 years related experience desired. Experience required includes C and Fortran languages, UNIX and color graphics. Experience with data structures, LISP, and expert systems would be useful. Send cover letter and resume to Bill Webster.

Systems Programmer/Analyst II (PT6004) Level 33
Cornell Information Technologies/Systems-Endowed
Design, implement, install, document and maintain systems software or significant subsystems in IBM VM systems, primarily VM/XA.
Requirements: Bachelor's or equivalent with related computer courses. 2-3 years experience with VM operating systems and significant subsystems. Knowledge of hardware concepts as they relate to software issues. Knowledge of IBM/370 assembler language. Send cover letter and resume to Bill Webster.

Research Support Aide (PC6516) HRII
Chemistry-Endowed
Coordinate and monitor progress of manuscripts through editorial process for internationally-known technical journal; prepare annual author search survey for journal; submit production and financial reports to American Chemical Society; organize collection and supervise data entry of mass spectral data.
Requirements: Bachelor's or equivalent in chemistry; Master's or 2 years related experience desirable. Familiarity with modern chemistry and science library; editorial experience helpful. Ability to learn the mass spectrometry of organic compounds and understand the organic structural data. Familiarity with scientific computing and word processing. French/German helpful. Send cover letter and resume to Esther Smith.

Cash Office Supervisor (PC6503) HRII
Statler Hotel-Endowed
Under general supervision, responsible for cash handling procedures for the entire hotel. Supervises all cash handlers at food and beverage outlets and front office. Supervises cash office which stores large sums of cash daily. Hours flexible; nights and weekends.
Requirements: Associate's or equivalent. Bachelor's preferred. Minimum 2-3 years experience with supervisory experience essential. Must be able to be bonded. Knowledge of computerized cashiering equipment essential.

Physical Therapist (PA6502) HRII
University Health Services-Endowed
Responsible for planning and implementing rehabilitation programs for UHS patients.
Requirements: Bachelor's in physical therapy; NYS license or eligibility required. Experience in sports physical therapy and orthopedics preferred. Send cover letter and resume to Cynthia Smithbower.

Assistant Director, Corporate Development and Foundation Relations (PA6503) HRII
University Development-Endowed
Provide general support by coordinating and executing projects necessary to the development, marketing and stewardship of Cornell's relationships with corporations and private foundations. Works with executive staff, faculty, public affairs and development officers, and with corporate and foundation executives.
Requirements: Bachelor's. Minimum 1-2 years related experience. Demonstrated commitment to the goals of higher education. Some knowledge of private corporations and foundations as well as University Development activities. Excellent communication (oral/written) skills. Analytic ability. Must be able to work independently, set and keep priorities and meet deadlines. Send cover letter and resume to Cynthia Smithbower by May 12.

Assistant Director of Alumni Programs (PA6403) HRII
Alumni Affairs-Endowed
Assist the Director and the Associate Director in planning overall policies, procedures and goals for Cornell Clubs nationally. Supervise Club activities in assigned regions. Assist in planning, development and execution of leadership workshops.
Requirements: Bachelor's or equivalent; Cornell degree preferred. Demonstrated ability to work with and organize volunteers; strong interpersonal communication and writing skills; minimum 2-3 years experience with volunteer organizations preferred. Some travel. Send cover letter and resume to Cynthia Smithbower by May 5.

Technical Consultant II (PT6301) Level 33/HRII
HDFS/Family Life Development Center-Statutory
Provide technical support, training and orientation to a staff of approximately 30 on the effective use of microcomputers in a complex local area network and electronic publishing environment. Until 3/31/90. Continuation contingent upon funding.
Requirements: Bachelor's or equivalent in education. Minimum 2-3 years experience with micro computers; Macintosh experience required, IBM PC familiarity desirable. Working skills must include a fifth generation language, strong system diagnostic and telecommunications. Some experience in PASCAL, C, or BASIC desired. Send cover letter and resume to Bill Webster.

Technical

As a prominent research institution, Cornell University has a diverse need for laboratory, electro/mechanical and computer support. Individuals with backgrounds in computer science, biology, microbiology, chemistry, animal husbandry, plant science and medical laboratory techniques are encouraged to apply.

Submit a resume and cover letter for each position, specifying the job title, department and job number. Skills assessment check lists, available at the Day Hall office, are a valuable aid when applying for computer or laboratory related positions.

Technician, GR18 (T5611)
Nutritional Sciences-Statutory
Minimum Biweekly Salary: \$487.50
Conduct animal behavioral research, analyze data using Cornell's mainframe computer, and aid in the training and supervision of undergraduate students in research.
Requirements: Bachelor's or equivalent preferred. Research and computer experience preferred for data analysis (or interest in acquiring skills).

Technician, GR18 (T5307)
Genetics and Development-Endowed
Minimum Biweekly Salary: \$487.50
Carry out biochemical and molecular biology experiments including DNA isolation, blotting and sequencing. Perform animal tissue culture as well as large scale bacterial culture. Responsible for lab organization and ordering of supplies.
Requirements: Bachelor's or equivalent in biology, chemistry or biochemistry. One year experience in a biology or biochemistry lab. Additional experience highly desirable.

Technician, GR18 (T4527)
Food Science-Statutory
Minimum Biweekly Salary: \$487.50
Conduct research on physical and functional properties of proteins on foods-surface active properties, foaming, gelation, protein separation and purification, etc.
Requirements: Bachelor's or equivalent in science and experience in lab research. Minimum 1 year related experience. Knowledge of protein chemistry, separation and analyses, some experience with physical properties, measurements and functional properties, spectrophotometric analysis, chromatography, electrophoresis desirable.

Facilities Inventory Drafter, GR19 (T5401)
Facilities Engineering-Endowed
Minimum Biweekly Salary: \$510.90
Responsible for maintaining and updating drawings and floor plans for all Cornell owned facilities. Conduct "field" inspections of buildings to survey, calculate, and verify "field" data relating to net and gross square footage usage.
Requirements: High School diploma, Associate's or equivalent preferred. 2 years drafting experience, strong communication and interpersonal skills, exposure to micro computer systems (prefer Apple Macintosh) and have and maintain a valid driver's license. Any experience with CADD desirable.

Technician, GR19 (T5310)
Psychology-Endowed
Minimum Biweekly Salary: \$510.90
Prepare electrophysiology experiments; perform small animal surgery, drafting, photography. Prepare statistics and other information for paper presentation. Maintain laboratory. Until 6/30/90, continuation contingent upon funding. Schedule includes some nights and weekends.
Requirements: Bachelor's or equivalent in biopsychology, biology or related field. Minimum 2 yrs experience in one or more of the following: histology, electrophysiology, photography, figure drafting and/or statistical analysis.

Technician, GR19 (T4113)
Veterinary Pathology-Statutory
Minimum Biweekly Salary: \$510.90
Provide technical support for activities in flow cytometry lab including cell cultures, protein and nucleic acid analysis.
Requirements: Bachelor's or equivalent in biology or physical science. Minimum 1 year related experience.

Animal Health Technician, GR20 (T6404)
Veterinary Medical Teaching Hospital-Statutory
Minimum Biweekly Salary: \$534.30
Work as an Anesthesia Technician. Maintain well stocked clean environment. Monitor animals during anesthesia period. Work with veterinary students, assisting with the teaching of various anesthesia used in vet. medicine.
Requirements: Associate's in animal health technology. NYS licensure or eligible for licensure. 2 years experience as an Animal Health Technician preferred.

Animal Health Technician, GR20 (T6406)
Veterinary Medical Teaching Hospital-Statutory
Minimum Biweekly Salary: \$534.30
Provide support therapy for ICU patients and assist with emergency procedures. Teach intensive care and emergency protocol to students assigned to ICU duty. Some weekends and holidays. 3-11pm and 11pm-7am rotating.
Requirements: Associate's in animal health technology. NYS licensure or eligible for licensure. 2 years experience working with small animals. Interest in teaching critical care techniques.

Technician, GR21 (T4707)
Veterinary Medical Teaching Hospital-Statutory
Minimum Biweekly Salary: \$557.70
Perform diagnostic tests in hematology, cytology, coprology, urinalysis, chemistry and immunology. Operate and maintain equipment. Participate in "on-call" for off-hours and holidays. Use computer for specimen accession, data entry and information retrieval. Tuesday-Saturday.
Requirements: Associate's or equivalent in Medical Technology required. Bachelor's ASCP certificate preferred. 3 years related laboratory experience.

Technician, GR21 (T5612)
Nutritional Sciences-Statutory
Minimum Biweekly Salary: \$557.70
Perform procedures involving molecular biology; mRNA, DNA, DNA sequencing and use of computer to enter sequences. Protein purification. Use of chromatography columns and gel electrophoresis system. Perform experiments with cells in culture with isotopes.
Requirements: Bachelor's or equivalent in biochemistry or genetics or molecular biology. Minimum 3 years related lab experience. Biochemical analysis, DNA techniques.

Technician, GR21 (T5708)
Microbiology-Statutory
Minimum Biweekly Salary: \$557.70
Design, develop and perform experiments in bacterial genetics and physiology. Maintain and catalog bacterial culture collections. Inventory, order and maintain supplies and reagents. Oversee and assist in preparation and maintenance of media, stock solutions and glassware; maintenance of facilities and equipment.
Requirements: Bachelor's or equivalent in microbiology or related area. Familiarity with bacteriology, microbial physiology, and/or biochemistry. Knowledge of basic recombinant DNA techniques is desirable.

Technician, GR21 (T6403)
Diagnostic Laboratory-Statutory
Minimum Biweekly Salary: \$557.70
Perform a variety of serological tests including serum

neutralization, agar gel immunodiffusion, complement fixation, and hemagglutination inhibition. Perform virus isolation and fluorescent antibody procedures on clinical specimens. Prepare buffers, media and other reagents.
Requirements: Bachelor's or equivalent in microbiology, biology or related field required. 2-3 years work or course experience in virology and tissue culture desired.

Technician, GR22 (T6106)
Biochemistry, Molecular and Cell Biology-Statutory
Minimum Biweekly Salary: \$581.09
Conduct independent research studying the splicing of an intron found in the rDNA of Physarum. Design and execute experiments with minimal guidance. Maintain laboratory, order supplies, perform record and bookkeeping, and survey radioisotopes.
Requirements: Bachelor's or equivalent in chemistry, biochemistry, or related field required. 3-4 years experience, including 1-2 years working with molecular biological tools required. Experience working with RNA and a practical knowledge of modern acid biochemistry (recombinant DNA technology including in vitro mutagenesis, DNA sequencing, southern and northern hybridizations, etc.) required.

Research Technician, GR22 (T4416)
Agricultural and Biological Engineering-Statutory
Minimum Biweekly Salary: \$581.09
Set up and conduct experiments with Nutrient Film Technique and anaerobic digestion of biomass. Lab analyses, maintain time schedules, input data into computers and assist in writing technical programs.
Requirements: Bachelor's or equivalent in agricultural engineering or equivalent. 3-4 years experience in microbiology and wet chemistry analyses essential. Major physical exercise required, operate large tractors & lift equipment.

Technician, GR23 (T6206)
Biochemistry, Molecular and Cell Biology-Endowed
Minimum Biweekly Salary: \$604.49
Participate in studies on the biochemistry of cancer; perform assays of protein kinases and their effect on function (e.g. transcription).
Requirements: Bachelor's or equivalent. 5 years relevant experience. Experience in general laboratory methods.

CHESS Operator (T6405)
CHESS-Endowed
Minimum Biweekly Salary: \$639.59
Interact with user groups on technical and scientific problems. Implement safety codes. Responsible for covering CHESS system malfunctions and software problems associated with instrument control. May assist in experimental programs. Some evening and weekend hours required.
Requirements: Bachelor's or equivalent in technical field such as engineering or physics. Experience not needed. Good mechanical and lab skills. Programming experience preferred.

Technical Part-time

Technical Assistant, GR16 (T6401)
Biochemistry, Molecular and Cell Biology-Statutory
Minimum full-time equivalent: \$448.50
Sort and store clean glassware; wash, dry and sort pipettes. Prepare media and sterile supplies; work with acids siliating solution and organic solvents. Perform general record keeping, photocopying and assorted errands. Mornings, Monday-Friday, 20 hours per week.
Requirements: High School diploma or equivalent required. Associate's or equivalent desired. Some laboratory experience essential. Willing to work near radioactive materials.

Technician, GR22 (T6502)
Veterinary Microbiology-Statutory
Minimum full-time equivalent: \$581.09
Provide assistance to faculty member in carrying out laboratory and animal experiments in reproduction and immunology. Regular, part-time position, hours to be arranged.
Requirements: Bachelor's or equivalent plus 3 years relevant experience or Master of Science required. Must be familiar with techniques in biochemistry, cellular biology and DNA technology. Send cover letter and resume to Bill Webster.

Technical Temporary

Research Assistant (T6501)
Textiles and Apparel
Hourly Rate: \$6.00
Collect well water samples from throughout Tompkins County and deliver them to lab for analysis. Enter statewide test data into a computer database. Assist in a sanitary survey performed by the Tompkins County Health Department. Car provided. 10 weeks beginning late May or early June.
Requirements: Basic knowledge of chemistry and computer science desired but not required. Valid NYS driver's license required. Reliability essential. Apply to Bill Webster by May 12.

Technician (T6302)
Entomology
Assist with biochemical and toxicological assays and the rearing of insect colonies. Perform general lab maintenance. Full-time through the summer.
Requirements: Bachelor's or equivalent in biology, chemistry or biochemistry preferred. Experience with enzyme assays and insecticide bioassays desired. Submit application materials to Bill Webster, 160 Day Hall.

Research Equipment Technician (T3509)
Agricultural Engineering
Assist in the construction and operation of a highly innovative sewage treatment system. Perform glass work, pipe bending, pipe threading, plumbing, carpentry, welding, metal cutting, space lighting and heating installations.

Requirements: High School diploma or equivalent. Knowledge of power equipment operation, plumbing, welding and acetylene torch metal cutting. Experience with water and sludge pump operation and repair preferred. Ability to drive trucks and operate heavy equipment preferred. Valid NYS driver's license required. Submit application materials to Bill Webster, 160 Day Hall.

Casual Technician/Lab Assistant (T6101)

Clinical Sciences-Statutory

Provide technical completion of biochemical assays used as clinical diagnostic tests in veterinary patients. Catalogue samples and report test results (computer data entry); assist in projects which may include handling of dogs and cats. Flexible schedule, 12-15 hours per week. **Requirements:** College level coursework in biochemistry and/or quantitative analysis preferred. Understanding of basic laboratory techniques including quantitative pipetting, centrifugation, reagent preparation and operation of a spectrophotometer desired. Pre-employment physical required. Submit application materials to 160 Day Hall.

Office Professionals

Approximately half of all University openings are for Office Professionals. Individuals with secretarial, word processing (IBM PC, MacIntosh, Wang, Microm), data entry, technical typing, or medium to heavy typing (45-60+ wpm) are encouraged to apply.

Submit a signed employment application and resume. Requests for referral and/or cover letters are not accepted from external candidates unless specified in the ad. Qualified applicants will be invited for a preliminary interview at our East Hill Plaza office.

Cashier, GR15 (C6514)

Statler Hotel-Endowed

Minimum Biweekly Salary: \$429.01

Performs cashiering responsibilities in all food and beverage outlets. Accurately records the sales and settles the checks for all outlets. Hours flexible, some nights and weekends.

Requirements: High School diploma or equivalent. Must be able to read and write English and possess good math skills. Some cashier experience in high volume setting.

Office Assistant, GR17 (C6507)

Hotel Administration-Endowed

Minimum Biweekly Salary: \$467.98

Provide receptionist/secretarial support for faculty in the food and beverage management area. Duties include receive and assist students; answer phones; typing on wordprocessor; maintain and coordinate employment process for teaching assistants.

Requirements: High School diploma or equivalent. Minimum 1-2 years secretarial experience preferred. Willing to learn wordprocessing helpful. Medium typing.

Secretary, GR18 (C6508)

Vet Microbiology, Immunology & Parasitology-State

Minimum Biweekly Salary: \$487.50

Manage and process memorial gifts; promote the memorial program; write letters; respond to written and phone requests for information; develop mailing lists. Responsible for bookkeeping, word processing and data-base management.

Requirements: High School diploma or equivalent. Secretarial school desirable. Minimum 1-2 years related experience. Good interpersonal, and communication (written/oral) skills. Medium typing.

CRT Operator, GR18 (C5103)

Section of Ecology and Systematics-Statutory

Minimum Biweekly Salary: \$487.50

Responsible for accurate data entry of biological and geographic data into PC database. Also responsible for interpretation of complex data. 9 month-1 yr appointment.

Requirements: High School diploma with college course work in biology, science, or natural history. 1 year prior experience in data entry using IBM-compatible personal computer. Medium typing. Send cover letter and resume to Esther Smith.

Senior Circulation/Reserve Assistant, GR18 (C6409)

Mathematics Library-Endowed

Minimum Biweekly Salary: \$487.50

Under the supervision of the Mathematics Library Supervisor, is responsible for the entire circulation/reserve and serials operation of that library as well as the microform operation in the Engineering Library. Interviews, hires, trains, supervises required student staff in all operations. Utilizes RLIN/IBM-PC/Macintosh for public/technical services and records maintenance.

Requirements: Associate's or equivalent. Previous library or related experience desirable. Excellent organizational abilities, attention to detail, and strong interpersonal skills. Knowledge of RLIN/Macintosh/PC desirable. Light typing.

Secretary, GR18 (C6403)

Human Service Studies-Statutory

Minimum Biweekly Salary: \$487.50

Provide secretarial support for the Cornell Empowerment Group funded by the Ford Foundation for a program of research, program development and dissemination carried out by the Manager/Editor and five faculty members in the College of Human Ecology. Until 6/30/90.

Requirements: High School diploma or equivalent. Associate's desirable. Minimum 1 year related office experience. Experience with IBM PC's or Macintosh, Wordperfect, LOTUS/Excel preferred. Knowledge of Cornell statutory accounting system helpful. Excellent typing skills. Ability and desire to work as a team member with people of diverse backgrounds. Medium typing.

Administrative Aide, GR19 (C6502)

Hotel Administration-Endowed

Minimum Biweekly Salary: \$510.90

Provide administrative support to 3 faculty members. Act as liaison between faculty and students. Compile, type, proofread and edit complex course material, exams, correspondence, research proposals, etc. Answer phones; schedule meetings and appointments; handle mail.

Requirements: High School diploma or equivalent. Minimum 1-3 years secretarial experience. Word processing skills required. Work independently. Excellent interpersonal skills. Requires independent judgment and decision making. High level of confidentiality essential. Medium typing.

Administrative Aide, GR19 (C6411)

Institute for Comparative and Environmental Toxicology-Statutory

Minimum Biweekly Salary: \$510.90

Provide administrative, secretarial and organizational support to Director, Assistant Director and Graduate Field Representative of Environmental Toxicology. Act as Graduate Field Secretary. Facilitate flow of information between director, faculty, students, research & ext. personnel.

Requirements: Associate's in secretarial science or business or equivalent. Minimum 2 years in an educational setting. Graduate field secretarial experience desirable. IBM PC, Wordperfect 5.0. Medium typing.

Secretary, GR20 (C6510)

Computer Science-Endowed

Minimum Biweekly Salary: \$534.30

Provide administrative and organizational support for 3 faculty, their respective research groups and administration of research projects. Serve as administrative contact for Computer Science dept. Industrial Affiliates Program. **Requirements:** Associate's or equivalent preferred. Minimum 2-3 years related experience. Computer knowledge. Editing of scientific papers. Interpersonal, organizational and communications (written/oral) skills. Deal with public. Handle confidential material. Medium typing.

Administrative Aide, GR20 (C6402)

Hotel Administration-Endowed

Minimum Biweekly Salary: \$534.30

As the personal aide to the Assistant Dean for Business and Administration, act as liaison between the Office of Assistant Dean and other departments within the School of Hotel Administration, involving independent decision-making; work closely with the ADBA on matters of confidentiality and sensitive nature.

Requirements: Associate's in business or equivalent experience. Minimum 2-3 years related experience. PC word processing skills necessary. Familiarity with Cornell accounting and budget systems preferred. Experience with budget procedures, ability to do accounting analysis, and knowledge of Lotus 1-2-3 preferred. Excellent interpersonal and communication skills. Medium typing.

Recruiting Coordinator, GR21 (C6501)

JGSM-Endowed

Minimum Biweekly Salary: \$557.70

Manages, under supervision, all on-campus corporate recruiting activities and related student activities for the Johnson School. Plan, organize, and implement dates and arrangements for guest speakers, panels, corporate visits and interviews. Direct staff and student workers. Assist Director in career counseling and program planning.

Requirements: Associate's or equivalent, Bachelor's in relevant field desired. Strong interpersonal and organizational skills. Ability to deal with sensitive situations and confidential material. Familiarity with computers and programming beneficial. Medium typing. Send cover letter and resume to Esther Smith.

Senior Sales Assistant, GR21 (C6515)

Statler Hotel-Endowed

Minimum Biweekly Salary: \$557.70

Responsible for the sale, planning and follow-through of all conferences, meetings and seminars held in the conference center of the hotel. Coordinate clients needs with the hotel staff. Hours flexible; some nights and weekends.

Requirements: Associate's or equivalent. Degree in hotel administration helpful. Hospitality industry background essential. Minimum 3 years previous experience. Knowledge of computer/word processing equipment. Experience with meeting planning and food and beverage desired. Excellent communication (written and oral) skills. Detail oriented.

Accounts Assistant, GR21 (C6406)

Controller's/Endowed Accounting-Endowed

Minimum Biweekly Salary: \$557.70

Provide accounting support for University Departments. Review journal vouchers, set up accounts, and answer questions regarding accounting policies. Prepare monthly, quarterly, and annual financial reports. Prepare special reports as assigned.

Requirements: Associate's in accounting or equivalent education and experience required. Minimum 2-3 years accounting/bookkeeping experience preferred. Working knowledge of personal computers. Must demonstrate strong organizational and communication skills and be able to work independently. Experience with endowed accounting system desirable.

Accounts Coordinator, GR22 (C6505)

Summer Session-Endowed

Minimum Biweekly Salary: \$581.09

Provide extensive accounting and payroll support to the Division and to the director of finance. Supervise all Summer and Extramural Study accounts including processing deposits, reviewing and reconciling accounts; reviewing special program and professional program budgets; appoint and process payroll for approximately 700 faculty, TA's and staff; provide and maintain deposit databases; supervise accounts assistant.

Requirements: Associates in accounting or equivalent. Minimum 3-4 years experience. Excellent organizational, interpersonal, and communication skills required. Knowledge of Cornell accounting preferred. Experience with Lotus 123 required.

Research Aide, GR22 (C6408)

Academic Personnel Office-Endowed

Minimum Biweekly Salary: \$581.09

Primarily responsible for maintenance and update of academic personnel database; generate related internal academic personnel office reports. Assist with implementation, maintenance and interpretation of academic personnel policies and procedures. Process academic appointment forms.

Requirements: Associate's or equivalent combination of education/experience in business/human resources administration. Minimum 3 years related experience. Considerable knowledge and experience with personal computers (Macintosh SE and related programs preferable). Familiarity with Cornell's administrative operation preferred. Strong interpersonal, organizational and communication skills. Medium typing.

Office Professionals Off-Campus

Secretary, GR18 (C6512)

NYSSILR, Western District-Buffalo-Statutory

Minimum Biweekly Salary: \$487.50

Provide secretarial services for director, coordinators, and institute associates of Institute for Industry Studies. Perform broad range of secretarial and office administrative services directly related to processing and maintenance of various aspects of credit and noncredit programs.

Requirements: High School diploma or equivalent. Secretarial school preferred. Minimum 2 years job related experience. Superior written and oral communication skills. Microcomputer (MAC SE) word processing experience preferred. Medium typing.

Office Professionals Part-Time

Office Assistant, GR17 (C6513)

CU Press-Endowed

Minimum full-time equivalent: \$467.98

Precise, word-conscious person to help editorial assistant and secretary in Editing Department handling over 125 book titles per year. Duties include checking proof and indexes; preparing manuscripts for editors; photocopying; filing. Monday-Friday, 20 hours per week, flexible.

Requirements: High School diploma; some college desirable. Abilities to concentrate, focus on detail, work under schedules, and spelling are essential. Light typing. Send cover letter and resume to Esther Smith.

Secretary, GR18 (C6509)

Anatomy-Statutory

Minimum full-time equivalent: \$487.50

Secretarial support for the teaching and research activities of 3 faculty members in the department of Anatomy. Monday-Friday, 9 a.m.-1 p.m.

Requirements: High School diploma or equivalent, business or secretarial school desired. Knowledge of MacIntosh II essential. Minimum 1-2 years secretarial experience. Heavy typing.

Searcher, GR18 (C6511)

Acquisitions/Central Technical Services-Endowed

Minimum full-time equivalent: \$487.50

Major duties include receiving and processing incoming Special Foreign Currencies Program and NPAC monographs, serials and newspapers. 20 hours per week, Monday-Friday, some evening hours may be required.

Requirements: High School diploma or equivalent. Minimum 1-2 years related experience. Good organizational skills. Ability to work independently and lift 50 pounds essential. Some supervisory experience along with knowledge of South Asian Languages & NOTIS/RLIN desirable.

Office Assistant, GR18 (C6404)

Statler Hotel-Endowed

Minimum full-time equivalent: \$487.50

Perform daily duties of the front office. Operate the computer and telephone switchboard; check guests in and out of the hotel; post guest and club account charges and payments; help with reservations for guest rooms. Saturday, 7-3:30; Sunday, 3-11:30 p.m.; Monday, 3-11:30 p.m. **Requirements:** High School diploma or equivalent. Minimum 1 year front office experience. Some accounting, switchboard and computer experience.

Secretary, GR19 (C6504)

Division of Nutritional Science-Statutory

Minimum Biweekly Salary: \$510.90

Secretarial support for faculty member and laboratory staff. Type correspondence, manuscripts, grant proposals, etc. using Word Perfect; monitor monthly budget reports for Principal Investigator; answer phone; greet visitors; schedule appointments and travel; order supplies and chemicals. Assist with special projects as assigned. 20 hours per week, flexible. Until 6/30/90.

Requirements: Associate's or equivalent preferred. Minimum 2 years related office experience. Familiar with science terminology and experience with technical typing; computer proficiency with word processing required. Detail oriented, ability to work independently and set priorities required. Strong interpersonal and communication skills necessary. Medium typing.

Office Professionals Temporary

In addition to posted positions, temporary opportunities occur in many occupational areas, including secretarial, word processing, accounting, and office administration. All individuals are encouraged to apply; experienced applicants with a typing speed of 45-60 wpm, knowledge of IBM-PC Word Perfect software and MacIntosh word processing are in particular demand. Call Karen Raponi at (607) 255-2192 or 255-7422 for more information.

Program Coordinator (S6505)

Department of Natural Resources

Assist the Program Director in carrying out the Cornell Natural Sciences Interns Program. This program is designed to give minority and/or disabled high school students the opportunity to conduct natural sciences research projects and to explore career options in the natural sciences. The Program Coordinator will assume primary responsibility for the career exploration activities. Will work with the Program Director and staff in the College of Agriculture and Life Sciences Office of Instruction to design a 2 week natural sciences career exploration program for 12 youth. Assist in designing the research portion of the program. During the six weeks the students are on campus, the Program Coordinator will work alongside the students as they conduct their research and career explorations. Assist the students in developing written reports and oral presentations about their research and career explorations.

Requirements: Bachelor's or equivalent. Demonstrated ability to work with minority and disabled youth. Experience working with youth in career exploration activities. Familiarity with scientific research, word processing, and spread sheet computer software. Full-time, June 23-August 9, 1989. Will need to be available to work part-time during May and June designing the program. Send cover letter and resume to Dr. Marianne Krasny, Program Director, Dept. of Natural Resources, Fernow Hall, Cornell University, Ithaca, NY 14853.

Administrative Aide (S6402)

Hispanic American Studies Program

Prepare a variety of correspondence using Macintosh SE; coordinate photocopying and distributing of all out-going materials; open and prioritize all in-coming and out-going mail; file program materials; prepare purchase orders, vouchers and maintain financial records; supervise CWS student as needed; answer telephone requests for information and direct student inquiries appropriately. Full-time until May 26.

Requirements: High School diploma or equivalent. Associate's or equivalent preferred; 1-2 years experience. Bilingual in Spanish/English preferred. Knowledge of university essential. Experience with Macintosh computer preferred. Medium typing. Send cover letter and resume to Karen Raponi.

Office Assistant (S6301)

Natural Resources

Provide secretarial support for Natural Resources Extension staff. Answer phones, photocopy, run campus errands, process mail, handle public requests, wordprocessing, type forms, file, receive office visitors. Monday-Thursday 2-5 p.m. Friday 8-5 p.m.

Requirements: High School diploma or equivalent; coursework in secretarial science; proficient in IBM-PC and Wordperfect. Must have excellent telephone technique; ability to prioritize assignments; work in complex active environment. Must be able to work independently. Send resume and cover letter to Karen Raponi.

Sales Assistant (S6107)

Cornell Plantations

General sales duties at Cornell Plantations Garden Gift Shop. Open, close, and oversee Headquarters, register sales, answer phones, water plants, answer basic plant questions. Occasional nights during tours, and weekend coverage for vacations. Alternating wknds & holidays. Sat, 10-5:30 p.m. Sun, 11:00-5:30 p.m. April 15-December 24. **Requirements:** High School diploma or equivalent; previous sales experience required. Knowledge of plants helpful. Good interpersonal skills. Enjoy dealing with people. Send cover letter and resume to Karen Raponi.

Sales Assistant (S6001)

Laboratory of Ornithology

General sales duties at Crow's Nest Bookshop during weekends and holidays. Open, close, and oversee Laboratory, register sales, answer phones, feed birds, answer basic bird questions, secure Lab when closing. Occasional Monday nights (3 hours) during seminars. Alternating

weekends and holidays. Must be able to commit weekends on a regular basis. Saturday, Sunday, 11:30-5:30 p.m. **Requirements:** High School diploma or equivalent. Previous sales experience required. Knowledge of birds helpful. Good interpersonal skills. Enjoy dealing with people. Light typing. Send cover letter and resume to Karen Raponi.

General Service

Submit a signed employment application and resume. Requests for referral and/or cover letters are not accepted from external candidates unless specified in the ad. Qualified applicants will be invited for a preliminary interview at our East Hill Plaza office.

Head Waitperson, SO02 (G6506)

Statler Hotel-Endowed

Hiring Rate: \$5.75

Under general supervision, set up, serve & break down all banquet functions. Flexible hrs include nights and wknds. **Requirements:** High School diploma or equivalent. Previous training in guest service preferred. Waiter/waitress experience helpful. Must be able to read and write.

Custodian, SO02 (G6505)

Residence Life-Endowed

Hiring Rate: \$5.75

Provide general custodial care of buildings and grounds in assigned area. Monday-Thursday, 7am-3:30 pm; Friday 7am-2:30pm.

Requirements: Basic reading and writing skills. Able to operate a variety of heavy power equipment, lift 50 pounds and climb an 8 foot ladder. Daily contact with students.

Custodian, SO02 (G6504)

Buildings Care-Endowed

Hiring Rate: \$5.75

Provide general custodial care of buildings and grounds in immediate vicinity of assigned area. Monday-Thursday, 6 a.m.-2:30 p.m.; Friday 6 a.m.-1:30 p.m.

Requirements: Basic reading and writing skills. Able to operate a variety of heavy power equipment, lift 50 pounds and climb an 8 foot ladder.

Custodian, SO02 (G6502, G6503)

Buildings Care-Statutory

Hiring Rate: \$5.75

Provide general custodial care of buildings and grounds in immediate vicinity of assigned area. Monday-Thursday, 6 a.m.-2:30 p.m.; Friday 6 a.m.-1:30 p.m.

Requirements: Basic reading and writing skills. Able to operate a variety of heavy power equipment, lift 50 pounds and climb an 8 foot ladder.

Head Custodian, SO06 (G6501)

Building Care-Endowed

Hiring Rate: \$6.85

Oversees cleaning of multiple endowed campus buildings; oversee and develop a staff of 10 or more custodians. Responsible for equipment and supply inventory management. Interact with building users in coordinating department services. Substitute for supervisor in their absence. Monday-Thursday, 6am-2:30pm; Friday 6am-1:30pm. Must be able to work overtime & other special hours as needed. **Requirements:** High School diploma or equivalent. Minimum 3-5 years progressive experience in custodial maintenance. Demonstrated leadership and interpersonal skills essential. Able to perform basic inventory-supply ordering. Must be in good physical condition, able to lift 50 pounds and climb a 6 foot ladder.

Leadman/Equipment Operator, SO08 (B6502)

Grounds-Endowed

Hiring Rate: \$7.45

Performs skilled landscape maintenance and field supervision of the activities of a crew of landscape maintenance personnel consisting of groundworkers, equipment operators, and seasonal groundworker/student laborers; supports in-house shops and outside contractors with personnel and equipment. Monday-Friday, 7am-3:30 p.m.

Requirements: Associate's degree or equivalent with green industry related career field with emphasis on parks or institutional landscape maintenance. Minimum of 2 years full-time paid experience in the grounds maintenance field to include a minimum of 1 year supervisory experience. Valid motor vehicle operators license, NY Class #3 desired; NY Pesticide Applicator's license. Send application materials to Staff. Svcs, 160 Day Hall by May 4.

General Service Temporary

In addition to posted positions, temporary opportunities frequently occur in custodial, food service, dish machine operation, material handling and other service areas. All individuals are encouraged to apply. Call Karen Raponi at (607) 255-2192 or 255-7422 for more information.

Assistant Animal Technician (B6501)

Laboratory Animal Services

Hiring Rate: \$5.00

Provide care, proper feed, fresh water, general cleaning and maintenance of cages, pens. Change bedding, papers and pan liners, remove waste while minimizing contaminants in animal rooms. Will be trained on proper handling of waste disposal. 5 days per week including weekends. **Requirements:** High School diploma required. Experience with animal handling. Able to lift 50 pounds. Must have preemployment physical and initial immunization required. Send application materials to Staffing 160 Day Hall.

Academic

Program Coordinator, Marine District, Sea Grant-Riverhead, NY - Cooperative Extension

Salary: Commensurate with qualifications

Master's degree in aquatic or marine sciences, environmental studies, or natural resource management or communications, with at least 7 years of related experience in environmental research, education, administration or communications, including at least 1 year of experience in an extension education outreach or public information program setting. Send letter of intent and resume by closing date of May 11, 1989 to Paul W. Townsend, Cornell University, 212 Roberts Hall, Ithaca, NY 14853-5901.

Director of Instructional Development

NYS College of Veterinary Medicine

Interested individuals should send a letter of application, curriculum vitae and names and addresses of 3 references to Dr. S. Gordon Campbell, Associate Dean, NYS College of Veterinary Medicine, Cornell University, Ithaca, NY 14853-6401.

Theriogenology: Lrg Animal or Wildlife - Clinical Sci

Interested individuals should send a letter of application, curriculum vitae and names and addresses of 3 suitable references to Dr. Donald F. Smith, Chairman, Department of Clinical Sciences, NYS College of Veterinary Medicine, Cornell University, Ithaca, NY 14853-6401.

Opportunities Continued from page 1

date. If the hiring department determines that you are qualified, you will be called for an interview.

Why prepare a resume?

Your resume is one of your primary tools in seeking a new job at Cornell. It presents a picture of you and your work: the skills you have, your training and education, where you have worked, and what your career interests are. Resumes are generally scanned. Therefore, your resume should be well organized, brief and easy to read.

What info should I include in my resume?

The first step in preparing your resume is to assemble all the needed information.

Essential information in every resume!

- Work history (including military service)
- Education
- Skills

Optional information:

- Career objectives
- Professional memberships
- References

Identifying information:

- Name, address and phone numbers - at work and at home.

Work History - Identify prior employers, dates of employment, and the titles of the positions you previously held.

Describe the work you've done, beginning with the tasks requiring the most judgment and skill. Use short sentences, phrases and action verbs (such as manage, develop, increase, etc.) to describe duties. Avoid long, rambling sentences and personal pronouns. Keep the information brief and to the point, making it easier for the reader to skim your resume.

Education - List schools attended and degrees received. Include job-related course work. If you are a recent graduate, you may want to include honors received and grade point average (if it is to your advantage).

Skills - Describe any special skills and licenses you have as well as any training you have received in the use of those skills. Include specific machinery or equipment that you can operate (or repair, if appropriate).

Career Objectives - If you are preparing your resume for a specific job, stating a career objec-

tive can be helpful. If you wish to be more flexible, you may not want to include a career objective.

Professional Memberships - Identify professional memberships which pertain to the position you are seeking. Avoid political and religious affiliations. List any articles you may have contributed to professional publications.

References

- References need not be included in the resume itself.
- Be selective and discrete in using your references. Don't wear them out.
- You may be requested to provide references during the interview process.
- You should prepare a list of references with their current titles, addresses, and phone numbers; carry this with you into the interview. The individuals should consent to your using them as references and be able to attest to your qualifications and job performance.

Helpful Hints When Preparing Your Resume

- Make sure your resume is current. Never use one which is outdated or has handwritten additions or corrections.
- Keep your resume to one or two pages. If two pages, put your name on the second sheet and number it.
- Your resume should be easy to scan. Organize it logically, with short, easy-to-read sentences.
- Add emphasis by underlining and using capitals.
- Have your resume proofread by two other people to check for errors in grammar, spelling and typing.
- Avoid personal, non-job-related information.
- Have your resume printed on good quality white or off-white paper stock. If you must use a copy machine, be sure the quality of the paper is good. Avoid copiers that produce shiny or gray copies.

What is a good resume format?

Resumes fall into two major categories: Functional and Chronological

Functional Format (also known as Skills Inventory Resume);

The functional resume describes the skills you possess by listing the job duties according to category or function (for example: sales, management, accounting, etc.). Functional resumes can be especially beneficial if you have had varied experiences:

- Self employment, temporary or part-time employment;
- Work in such occupations as public relations, advertising, community agencies, or construction engineering where there are frequent changes in assignment;
- Work experience that has been voluntary in nature.

Use a functional resume if there is not an obvious match between your work history and the requirements of the job.

John Wisman 9342 Danby Road Ithaca, NY 14850 (607) 273-7214 (home) (607) 256-5205 (office)	
CLERICAL SKILLS	Extensive experience in a student relations office.
HUMAN RELATIONS	Considerable experience interacting with individuals at all levels.
OFFICE SKILLS	Filing - alphabetical; telephone - superswitch system; typing - 65 WPM, IBM Selectric; computer - APPLE II, data input, retrieval; other - good oral and written communication skills, excellent attention to detail.
EXPERIENCE	CORNELL UNIVERSITY ITHACA, NY 14853 3/12/73 - present
11/18/79 - Present	Office Assistant
3/12/73 - 11/17/79	Library Aide
EDUCATION	Moravia High School, Moravia, NY Major subject: Business
	Cornell University Training and Development Courses: • Effective Time Management • EXCEL • Assertiveness Training
REFERENCES	Available upon request

Chronological Format

The chronological resume lists the jobs you have held, in order, and the corresponding responsibilities, beginning with your most recent employment. You should include the name of each employer, dates of employment, type of firm, and nature of the work you performed. Chronological resumes are most useful if you have had a clear career path progression and you are seeking a position in the same field.

John Weisman
411 Dryden Road
Dryden, NY 13053
(607) 256-5226 (work)

WORK HISTORY

July 1981 to Present Technician — Cornell University — Path Immunohistology studies of diabetic rate of pancreases involving histological preparation.

EDUCATION BS Biochemistry & Cell Biology — University of Rochester — 3.7 GPA
Ithaca High School

COURSEWORK Organic Chemistry
Inorganic Chemistry
Cell Physiology

SKILLS Programming in COBAL
Familiar with SAS & SPSS

AWARDS AND MEMBERSHIP National Merit Scholarship
Dean's List - all semesters
Member of American Biochemists

Each time you apply for an internal transfer at Cornell, you should prepare a cover letter to accompany your Employee Transfer Application. This letter should explain your interest in the position, knowledge of the job requirements and your ability to fulfill those requirements.

Many positions at Cornell require highly specialized skills and knowledge. The cover letter allows you the opportunity to emphasize, in detail, the sections of your resume which relate to the particular job for which you are applying. Include any information which will help Staffing Services and the hiring department decide you are a good match for the job.

It is important to include details about your specific preparation for the job. For technical positions, it is appropriate to list your proficiency with various lab techniques and equipment.

101 Hanshaw Road
Ithaca, NY 14850
August 18, 1988

Dear Ms. Greene:

I am interested in applying for the position of Administrative Aide, GR-20 in University Development, job number C183. Attached is my Employee Transfer Application and resume.

My duties as a secretary for three years in Electrical Engineering included typing technical manuscripts for three professors and several graduate students. I feel particularly qualified for the position you advertised because of my extensive experience using the Microm word processor as well as the organizational and interpersonal skills I have developed organizing the department's monthly colloquiums. I enjoy a fast-paced office with a lot of public contact.

I look forward to hearing from you. You can reach me at 256-8341 Monday through Friday, 8:00am to 4:30pm or at 272-9903 after 5:00pm.

Thank you for your consideration.

Sincerely,
Joan Smith

Disability Continued from page 1

seeming unwillingness to communicate with you. In too many cases hearing impaired persons are deemed to be stuck up, arrogant or just plain rude when in fact they didn't know they were being spoken to. I think we all have heard the saying, "I'm not deaf, I'm ignoring you." Well, next time you feel that you are being ignored, consider that maybe the person you have spoken to is deaf.

By remembering a few facts, you can eliminate the problem of saying the wrong thing and thus improve the chance of productive communication. Do not place limitations on a hearing impaired person's abilities or assume to know what they can and can't do. Only a person who lives with a hearing disability can know or do that. Many times job interviewers have failed to uncover the real skills and abilities of a hearing impaired person because they could not get beyond that person's disability. Do not assume that if a hearing impaired person can function well in one situation that he/she will be able to function at the same level in all situations. Many are skilled lip readers and when communicating one on one can follow a conversation accurately but when faced with several people in a group, become lost. Some hearing impaired people can use the telephone with moderate success and require the use of a sign language interpreter in a group. While this seems to be a contradiction, it is not an unusual circumstance. That difference depends a great deal on the type and severity of the person's hearing loss. Conversely, don't think that if hearing impaired people can't do something they can't do anything. This is also untrue.

Do not look on deaf/hearing impaired people as being pitiful or helpless. Our disability is without question limiting, but within those limits we can function well and outside the limits we can solicit assistance. Any assistance offered will be accepted except that which is generated from pity. I do not know anyone, hearing or deaf, who seeks pity. One's vocabulary must be cleaned up a bit also. You cannot think or speak in terms of a person being deaf and dumb or a deaf mute. Those phrases clearly link the words to mean the same thing. If one is deaf, surely that person is dumb or a mute (indicating an inability to speak). Neither statement is true and both are equally offensive. Other words like, "the deaf" are also wrong. People who can't hear are just deaf people. Don't talk down to a deaf person by using "simple" words or "baby" talk. Speak in sentences and phrases as you would with any other intelligent person. Many

deaf people are offended by having a pencil and paper thrust at them in an effort to communicate. If the deaf person offers to use notes or asks you to write, then fine, but do not initiate this attempt at communication.

One must also keep in mind that because only 40% of speech sounds are visible, even a skilled lip reader is at a great disadvantage. That is why you must try to speak in a normal manner to give the other person every chance to follow your conversation. Context is important, do not change the subject or skip from topic to topic. Many of the letter sounds in the English language sound the same to a hearing impaired person. The letters "ch" and "sh" sound the same, therefore the words church, shirt and shirk all sound the same. If that weren't bad enough, those letters also look the same to a lip reader. The letters S and Z look like each other. Add to that list, T, D, N and L, they all look and sound the same. This list goes on, but you begin to understand why communication and socializing becomes an exercise in frustration for many people. If you hear someone ask you to repeat yourself more than once that should be a clue to you to rephrase your statement. Some spoken words just can't be discriminated one from the other. By becoming more sensitive to the needs of hearing impaired people and more aware of the reasons behind those needs, you won't embarrass or offend anyone and you will also make communication smoother and more pleasant.

The following are a few tips to keep in mind to accomplish this.

How To Make Communication Better

- Look directly at the hearing impaired person when talking.
- Talk in a normal voice. No shouting and don't exaggerate your mouth movements.
- Keep your hands away from your mouth when speaking.
- Don't smoke, eat or drink while talking.

If a Sign Language Interpreter is Present

- Talk directly to the deaf/hearing impaired person. Do NOT talk in the third person. Don't say things like, "ask him if..." or "tell her that..."
- Accept the suggestion of the interpreter or hearing impaired person as to seating arrangements. They will know what works best.
- Understand that for the sake of clarity an occasional, brief signed exchange between the interpreter and deaf person may be necessary.

Planning Continued from page 1

Employees Take the Lead

Individuals must recognize that they must always be self-advocated in their careers and that delegating their career responsibility to an organization may not be in their best interest. An employee who is able to identify a job that needs to be done and then demonstrates or acquires the skills needed to do that job will always produce faster and more meaningful career growth than one who sits around complaining about the lack of opportunity.

Management's Role

Good managers know that success for themselves and their organization requires them to constantly balance and ultimately converge individuals needs and organizational goals.

Because managers are in the position of making decisions, they must work to gain employees' confidence and trust. If employees are to commit themselves to career planning/development with management, they must perceive management's own commitment to genuine cooperation and participation.

Management involvement in career development occurs through the following: the annual performance appraisal and discussion (which includes a

career discussion), specific instances of employee/management interaction, which may occur as new project and assignments arise or the continuing relationship that exists between employees and management and flexibility to accommodate time away from work.

Summary

Organizations are dependent on the performance of their people and people are dependent on organizations to provide jobs and career opportunities. It is in management's best interests to make a good match between person and job. It is similarly in the employees' best interest to clearly communicate goals and realistic career aspirations to management so those matches can best be made. Communication regarding career decisions is a two-way process.

It is management's responsibility to provide the right environment for career development. Management must be committed to career development and must address employee concerns on this issue. Such a program does not guarantee promotion or lateral moves but it can certainly increase an employee's chances for advancement, recognition and increased job satisfaction and can lead to a more effective institution of higher education.

For more information regarding career development at Cornell contact the Training and Development Office of Human Resources, 107 Day Hall or call 5-7170.