

Cornell Astronomers Report:

Uranus' Weather Lousy, But Moon Rocks Intrigue

A topsy-turvy world — where sunlight bathes the poles and equator alike, and square "pegs" fit in a round moon — intrigues Cornell astronomers as they review the Voyager 2 mission to Uranus.

Writing in a special July 4 issue of the journal *Science*, Cornell astronomers join others in the first comprehensive report of NASA findings on the cloud-shrouded planet and its remarkable satellite system.

Given Uranus' peculiarities, some surprises were expected. For example, the Uranian magnetic field tilts 60 degrees from true north, compared with the zero to 10 degrees declination in all other planets, including Earth. To make matters more confusing, the planet's spin axis is tilted almost 98 degrees, so it lies nearly on its side in the orbital plane around the sun.

"That means, as Uranus orbits the sun, the planet's north pole is fully illuminated, then its equator, then its south pole," explains Peter J. Gierasch, Cornell professor of astronomy and a member of the Voyager 2 infrared spectroscopy team.

If Earth moved that way, people in Miami Beach would migrate to Moose Jaw, Saskatchewan, to stay warm in the winter.

"Voyager told us that Uranus receives more heat at the poles than at the equator," Gierasch reports. Surprisingly, the Uranian

south pole, which was illuminated when Voyager 2 streaked by, was only a degree or two warmer than the darkened equator.

"It's as if the planet doesn't care where the sun is," the Cornell astronomer comments. Uranus is the seventh planet from our sun.

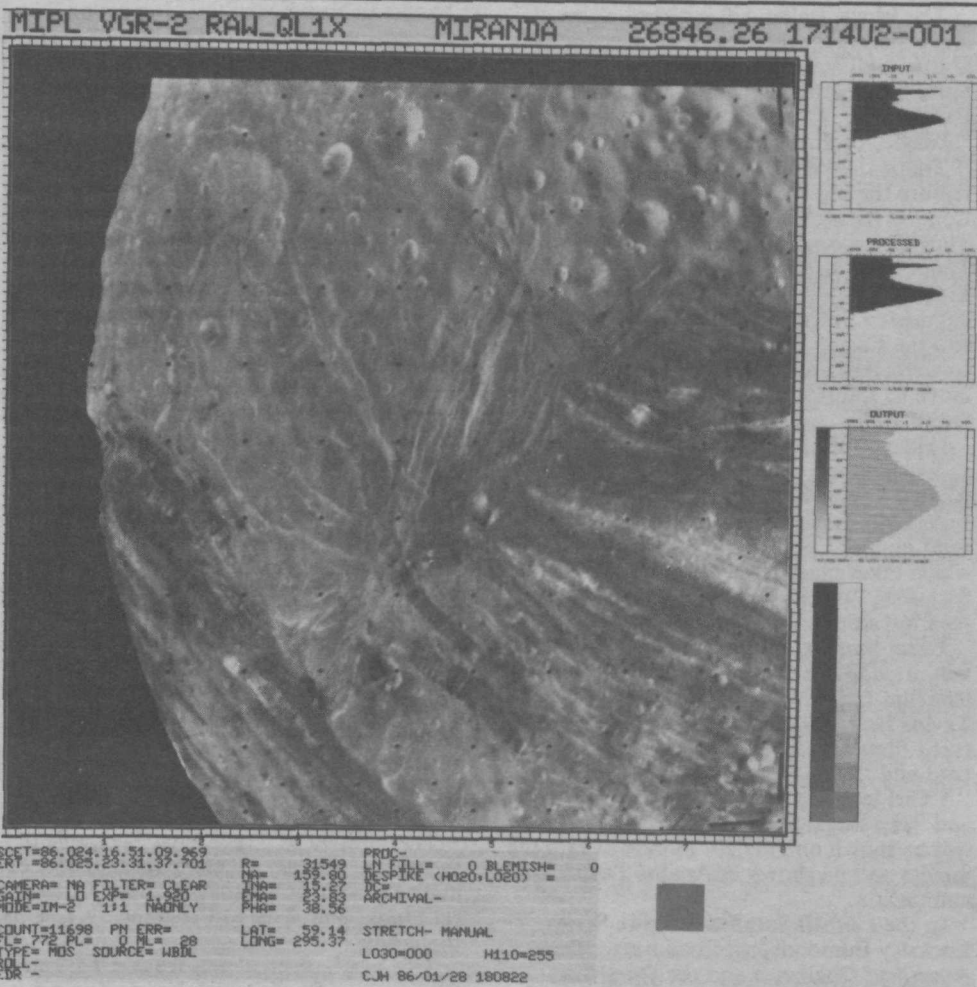
Among other surprises for the infrared astronomers, who used a spectrometer to determine the composition of materials and temperature readings, are:

— The atmosphere of Uranus is only 14 to 15 percent helium, rather than the 40 percent helium that was predicted from Earth-based observations. The remainder of the atmosphere was found to be hydrogen, with traces of methane. Low-lying clouds that shroud the planet are mainly composed of methane crystals, Gierasch reports.

— Uranus does not have a sizeable internal heat source; the other outer planets radiate twice as much heat as they receive from the sun.

— Unexplained bands of cold are found in the atmosphere at 30 degrees north and south latitude. The rest of the atmospheric envelope is cold enough, ranging from 75 Kelvin (about minus 388 degrees Fahrenheit) at cloud-top level to 53 Kelvin at the base of

Continued on Page 3



Astronomers are finding the moons of Uranus, including Miranda, shown here in this NASA image returned by Voyager, as intriguing as the cloud-shrouded planet itself.

Chemical Flirting Costs Spider Her Web, Cornell Biologist Reports

By ROGER SEGELKEN

A drama taking place among spiders in the mountains of the western United States has all the makings of a country-and-western ballad.

A Cornell biologist has found that when a male Sierra dome spider wants a female for his own, he sometimes wraps her elaborate domed web into a ball. That behavior, called web reduction, effectively keeps the scent of

her sex-attractant pheromones from reaching other males.

That's fine for the male, behavioral ecologist Paul J. Watson observes. The male spider gets to mate, and usually avoids a fight to-the-death with his rivals.

But the female would rather have "Mr. Right" arise from the fittest of survivors in the fights. Plus, she has to rebuild her web, which is vital for her protection and food-

gathering.

"The male Sierra dome spider is blocking a communication signal of a female without adding any signal of his own," Watson reports. Certain other male animals — including solitary bees, garter snakes, and bark beetles — can produce a scent that seems to repel other males.

The phenomenon of web reduction by male *Linyphia litigiosa* had been a puzzle for

biologists, who wondered about the seemingly destructive behavior. Watson demonstrated that crumpling the web into a ball prevents the spread of airborne pheromones, which the virgin female Sierra dome spider produces when she "worries" she'll become an old maid without mating.

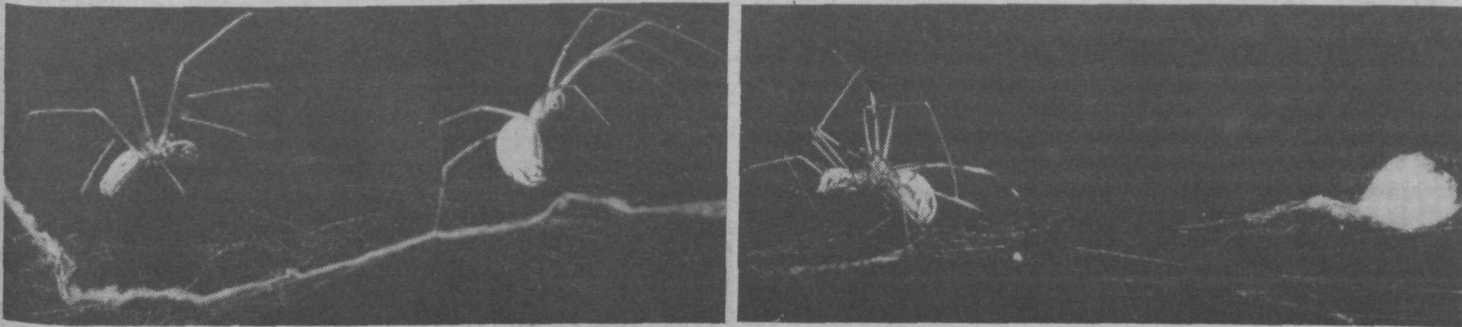
The Cornell biologist says web reduction is especially unusual behavior because it occurs at the expense of the female. The female is vulnerable to predators and has no way to capture prey until she can rebuild the three-dimensional web.

Smaller than a dime, the female Sierra dome spider builds its distinctive web, which is between 10 and 24 inches across, in the foliage of shrubs.

Some would say the chemically flirting female is "asking for trouble."

Much of the time, though, the female spider gets her way. In dense populations of Sierra dome spiders, males select and guard a female as she reaches sexual maturity, and other males often battle for her affections. The fights result in the female gaining a high-

Continued on Page 8



To prevent his rivals from catching the scent of a female's pheromones, a male Sierra dome spider destroys her web and wraps it into a ball. The female, at right in left photo, can only watch this unusual behavior, discovered in the mountains of Montana.

Ground Broken for Food Science Laboratory to Serve State Industry

Construction of a modern food science laboratory to provide vital technical services and research and development support for New York state's \$22 billion food industry is under way at Cornell. A groundbreaking ceremony marking the construction start was held Wednesday behind Stocking Hall on campus.

The \$6 million Food Processing and Development Laboratory is being financed through the State University Construction Fund as a result of an appropriation by the New York Legislature. The laboratory is scheduled for completion in September 1987.

Researchers using the new laboratory will provide technical aid to the state's dairy and food industries, and carry out research and development leading to new, improved foods from agricultural products produced in the state.

"The new facility will expand technical training of plant personnel in small food companies throughout New York state," according to Richard A. Ledford, professor and chairman of Cornell's food science department. Emphasis will be on new processes, quality control, product development, packaging materials, microbiological control, safety, and consumer evaluations, among others.

In addition, it will provide hands-on training in high technology to an expanding number of students and technical services personnel in the state's food companies.

The two-story laboratory is an addition to the current facility in Stocking Hall, which houses the Department of Food Science in the College of Agriculture and Life Sciences.

Designed before 1920 and constructed in 1923, the current facilities are "not sufficient in space, utilities, equipment, and flexibility to meet present and future needs of our food science program," says Ledford. "The exist-

ing laboratory and facilities are totally inadequate in providing technical services needed by about 3,000 dairy and food processing plants in New York State."

"The laboratory will contribute significantly to the education and training of the technical people that are urgently needed by the industry throughout the state," Ledford emphasizes.

Sea Grant Helps Septuple Tuna Exports To Japan

Long Island fishermen are exporting seven times as many tuna to Tokyo as four years ago, cashing in on a lucrative Japanese market. Tuna reigns supreme among the fish used to make "sashimi," a popular Japanese delicacy of thinly sliced raw fish.

For that reason, Japanese buyers want all the tuna they can find in the United States. Other states that export tuna to Japan include those in New England, New Jersey, Florida, California, Oregon, Washington, and Hawaii.

Now a major competitor in the race, New York's tuna industry is beginning to pick up steam, with sales approaching \$2 million a year, nearly a seven-fold increase since 1982.

This success story is due in part to the efforts of a Cornell University Sea Grant specialist who developed a quality control program for the state's tuna fishermen.

Christopher Smith, a specialist for the

New York State Sea Grant Program in Riverhead, said the major hurdle that hampered tuna sales was a lack of knowledge on how to handle tuna. Tuna fishermen didn't know how to maintain meat quality in top condition, a factor critical to discriminating Japanese consumers.

"About 70 percent of tuna caught by New York fishermen are air-lifted to Japan in specially equipped cargo planes," Smith said. "The rest of the tuna go to markets in the metropolitan New York City area, mostly for use as sashimi and sushi in Japanese and other Oriental restaurants." Sushi, also a traditional Japanese food, consists of small servings of rice topped with thin, bite size pieces of raw fish, among other items.

At \$2 to \$4 a pound, a tuna weighing several hundred pounds on average can fetch a handsome \$2,000 to \$3,000 each at the dock. Among tuna prized most is the bluefin that

can weigh as much as 1,000 pounds, but fishermen are allowed to catch only one bluefin each per day.

Two other types — yellowfin and big-eye — also abound in the Atlantic waters between 30 miles and 110 miles off Long Island, and there is no catch limit on these, according to Smith. They weigh up to 250 to 300 pounds each.

"There are plenty of tuna out there," he said, "and the potential for tuna export is great."

But the Long Island tuna industry, with annual sales of less than \$300,000 until recently, was not much of a business because fishermen didn't know how to handle their catch properly.

It was on a Montauk dock a few years ago when Smith witnessed a Japanese buyer inspecting a tuna catch. The buyer bought only

Continued on Page 8

Concerts, Lectures, Musical Activities to Continue Throughout July

Concerts, lectures, and a variety of performances continue on campus virtually every day of the week throughout the month of July. The following events are free and open to the public and sponsored by Cornell University Summer Session.

The Ithaca Ballet will perform classical and experimental ballet at 8:15 p.m. today in Statler Hall auditorium. "Mother Goose Suite", "Boatman's Dances," "Swan Lake Pas de Trois," "Mountain of Needles," and "Adagio for Strings" comprise the program.

Tonight's concert on the Arts Quad will feature the big band sounds of the Joe McConnell Band. The line-up of Tuesday and Thursday concerts includes Irish music by Tuin, July 15; fifties-sixties rock'n'roll by King Curtis and the Corvettes, July 17; and hammered dulcimer music by Dan Duggan and the Casual String Band, July 22. All concerts begin at 7 p.m. In case of rain, they move to Kaufman Auditorium, Goldwin Smith Hall.

Friday, July 11, Jach'alaya will perform ancestral music of the Andes at 8:15 p.m. in Anabel Taylor Hall auditorium.

Another musical highlight this week is the third annual Festival of Traditional Jazz, which takes place from noon until 6 p.m. Saturday, July 12, on the Arts Quad. (See separate story.)

Every Sunday, composer David Borden will provide live electronic music for the silent film series in the courtyard of Anabel Taylor Hall at 9 p.m. Only July 13, the featured films are "Sparrows" with Mary Pickford and "One Week" with Buster Keaton. "A Girl in Every Port" with Louise Brooks and "His Royal Slynness" with Harold Lloyd will be shown on July 20. In case of rain the movies will be shown in Anabel Taylor Hall auditorium.

In the Cornell Summer Lecture Series, Locksley Edmondson will address "The Apartheid Challenge and the Quest for World Community" at 8:15 p.m. Wednesday, July 16, in Bailey Hall auditorium. The following week, Dina Rasor, author of "The Pentagon Underground" will question "In Light of Procurement Reform, Are We Still Getting Less Bang for Our Bucks?" at 8:15 p.m. July 23 in Statler Hall auditorium. (See separate pieces.)

The Cornell Summer Concert Series as well as the Performing Arts Series feature a variety of performances for all musical tastes. On Thursday, July 17, The Hutchinson Family Singers will bring their "living history" presentation to Statler Hall auditorium at 8:15 p.m. Their program includes works by Stephen Foster, members of the original Hutchinson Family, and other nineteenth-century composers.

University organist Donald R.M. Pateron, associate professor of music and Sage Chapel choirmaster, will present a concert in Anabel Taylor chapel at 8:15 p.m. Monday, July 14. His program features "La Romanesca" by Valente; "My Young Life Has an End" by Sweelinck; "Chaconne in E Minor" by Buxtehude; "Concerto in F Major" by Albinoni; and "Come, Holy Ghost, Lord God," and "Toccata, Adagio," and "Fugue in C Major" by Bach.

Sonya Monosoff, baroque violin, and Barbara Harbach, harpsichord, will perform Monday, July 21, in Statler Hall auditorium. Monosoff is a professor of music at Cornell; Harbach, coordinator of keyboard studies at SUNY Buffalo, is the first American and the first woman of any nationality to receive Germany's "Konzertdiplom of the Musikhochschule." Their program will feature Danzi's "Sonata 1 in E-flat Major;" Bach's "Sonata V, BWV 1018, in F Minor" and "Sonata VI, BWV 1019, in G Major;" and Sirmen's "Sonata in A Major."

Kaleidoscope Dancers will present a concert especially for children, Thursday, July 18, at 7:30 p.m. in Anabel Taylor Hall auditorium. The company uses imaginative choreography, costumes, and music to give children the experience of dance both as an art form and as a way of learning.

Every Thursday, Sandwich Seminars take place from noon to 1 p.m. in 213 Ives Hall. Today's speaker is Jane W. McGonigal, senior extension associate and program coordinator of Cornell Cooperative Extension, who will address the subject of "Agricultural Changes in New York State: Impact on Families and Communities." On July 17, "Having Fun: How to Rediscover and Learn this Important Lost Art" will be discussed by Bernard Conn, assistant director, New York State Bureau of Recreation Services. The topic of the July 24 lecture is "The Search for Caring and Justice: The Social Functions of Law and Medicine," which will be presented by Larry I. Palmer, Cornell professor of Law.

Other lunchtime activities, which begin at noon, include the Odyssey Storytellers on Mondays, the Great Books Seminars each Tuesday, which began July 1, and campus garden tours on Wednesdays. Also on Mondays, tours of Uris Library begin at 4 p.m. and walking tours of campus architecture will be conducted at 6:30 p.m.

A copy of the calendar of events may be obtained from the Summer Session office at B12 Ives Hall, 255-4987.

Arts Quad Jazz Festival

Five traditional and dixieland bands will perform on the Arts Quadrangle Saturday, July 12, from noon "until exhaustion" during the third annual Festival of Traditional Jazz.

The Festival of Traditional Jazz, one of the special summer events sponsored by Cornell's Division of Summer Session, Extramural Study, and Related Programs, is free to the public.

This year's festival will feature Toronto's Climax Jazz Band, which has performed its New Orleans style of jazz at major festivals throughout the United States, Canada, and Europe.

Other entertainers at the festival will be Nick Palumbo's Dixieland Update of Syracuse, the Bearcat Jazz Band of Syracuse, Joe Cavallaro's Dixieland Jazz Band of Elmira and the Lowdown Alligator Jazz Band of Ithaca.

Visitors are invited to bring chairs or blankets. Picnics are encouraged; food, beverages, and albums will be sold. In case of rain, the festival will be held in Bailey Hall.

Silent Classics To Be Screened

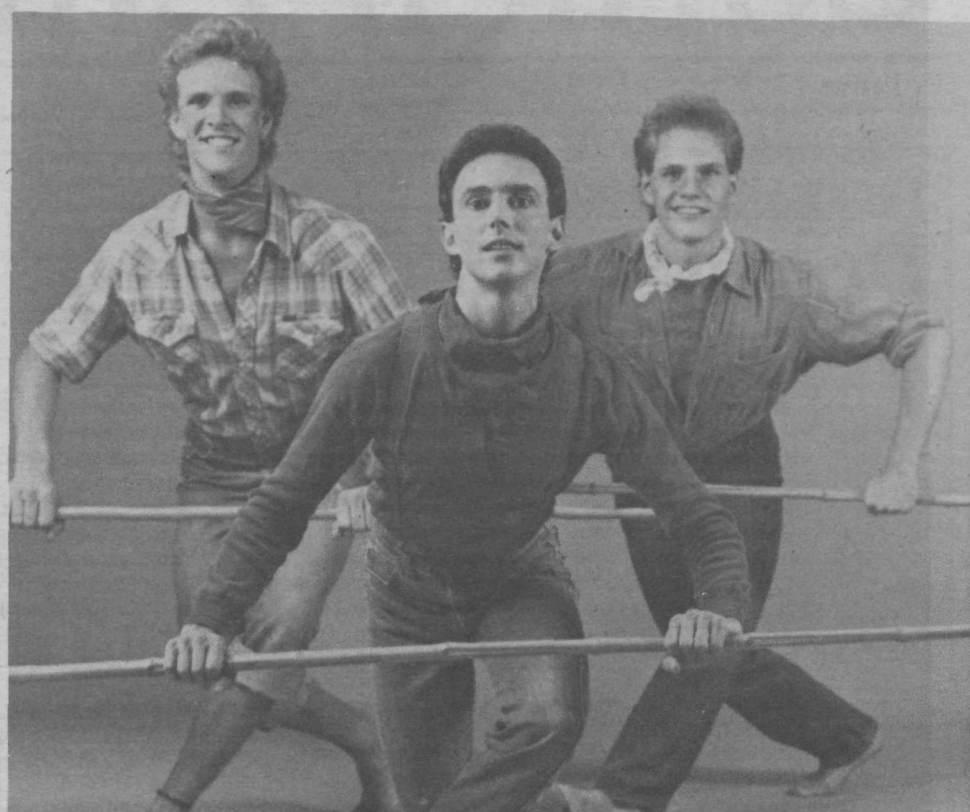
Free outdoor screenings of classic silent films will be held at 9 p.m. Sundays through July 27, in Anabel Taylor courtyard.

Live electronic music by David Borden will accompany each showing. Borden is a local composer/performer of "not-so-local repute," as noted in a recent feature article in the Ithaca Times. A composer for the Cornell dance department, Borden collaborated with dancers and choreographers to present Cornell's "Dance Concert '86" in May. His compositions, performed by the New Mother Mallard Band, not only accompanied the dances but carried on the concert's themes during set and costume changes.

The film series will highlight leading actresses and comics of American silent cinema during the '20s. In case of rain, the screenings will be moved indoors to the Anabel Taylor Hall auditorium.

July 13: Mary Pickford and Buster Keaton. "Sparrows" (1926) directed by William Beaudine; with Mary Pickford, "America's sweetheart." Also, "One Week" (1920), starring Buster Keaton.

July 20: Louise Brooks and Harold Lloyd. "A Girl in Every Port" (1928) directed by Howard Hawks. With Louise Brooks, Victor McLaglen, Robert Armstrong. Also "His Royal Slynness" (1919), with Harold Lloyd.



The Ithaca Ballet will perform tonight in Statler Auditorium.

Edmondson: 'The Apartheid Challenge'

Locksley Edmondson, visiting professor of African and Caribbean politics and international relations in the Africana Studies and Research Center, will discuss "The Apartheid Challenge and the Quest for World Community" at p.m. 8:15 p.m. Wednesday, July 16, in Bailey Hall auditorium on campus.

The lecture is one in a series of events sponsored by Cornell University Summer Session that focus on the theme "The Quest for Harmony." The lecture is free to the public.

Edmondson, who joined Cornell in August 1983, is a member of the steering committee for Cornell's Initiative on African Development.

His lecture will consider the South African struggle "in terms of an inequitable world order." According to Edmondson, the lecture will examine the idea that "the origins and perpetuation of the apartheid system in South Africa are part and parcel of the origins and perpetuation of a global white power structure. Thus are explained certain parallels as well as reciprocities between the apartheid system and the Western dominant international system."

The anti-apartheid struggle within and beyond South Africa inherently has profound implications for the future global order, he adds, "conveying some glimpses of hope in the continuing search for world community."

Rasor to Talk on Military Procurement

"In Light of Procurement Reform, Are We Still Getting Less Bang for Our Bucks?" is the title of a lecture to be presented by Dina Rasor, author of "The Pentagon Underground," at 8:15 p.m. Wednesday, July 23. The free lecture, sponsored by Cornell University Summer Session, will take place in Cornell's Alice Statler Auditorium.

Rasor is the director of the Project on Military Procurement, a private organization which makes evaluations of the defense system and military efficiency. She argues that the extraordinary sum devoted to the Defense Department has been largely squandered on a military system that produces weakness rather than strength.



Tuin will offer Irish Music July 15 on the Arts Quad.

Medical Series Is July 14-18

Ten distinguished faculty members of the Cornell University Medical College in New York City will discuss major contemporary health problems during a week-long series of lectures and question-and-answer sessions on the Ithaca campus July 14-18.

The midday series will discuss the most current research applied to the prevention and treatment of illnesses and conditions that affect large numbers of the population, such as arthritis, heart disease, Alzheimer's dementia, kidney failure, and AIDS.

There is a \$30 registration fee for all presentations during the week. Attendance for one day's sessions is \$10. Pre-registration is required.

For information: Update Your Medicine, Cornell University, Box 13, B12 Ives Hall, Ithaca, N.Y. 14853, or at 255-7259.

The schedule:

Monday, July 14

1:30 p.m., Preventing and Coping with Arthritis, Joseph A. Markenson, M.D.

2:10 p.m., Nutrition Fads and Frauds, Richard S. Rivlin, M.D.

Tuesday, July 15

1:30 p.m., AIDS Update, R. Gordon Douglas, M.D.

2:10 p.m., Cigarettes: Yours and Your Neighbor's, James P. Smith, M.D.

Wednesday, July 16

1:30 p.m., What You Should Know about Your Thyroid, James R. Hurley, M.D.

2:10 p.m., Role of the Patient in Breast, Pelvic, and Genitoretal Exams, Lila A. Wallis, M.D.

Thursday, July 17

1:30 p.m., What You Should Know about Alzheimer's Dementia, John J. Caronna, M.D.

2:10 p.m., What You Should Know about Gallstones, Ira Jacobson, M.D.

Friday, July 18

1:30 p.m., Organ Transplantation Today, Kurt H. Stenzel, M.D.

2:10 p.m., Prevention of Heart Disease, Stephen S. Scheidt, M.D.

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MANAGING EDITOR: Randall E. Shew
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Cornell had its own Lady Liberties last week as these staff members dressed appropriately for the weekend that was to be. From left are Sharon O'Dell, administrative aide, Theatre Cornell; Jan Carsen, registrar and academic secretary, Theatre Arts; Ellen Kennedy, general manager, Theatre Cornell, and Dana Cardwell, administrative manager, Theatre Arts. They did have access to costumes.

Municipal Sludge: Toxicity Makes It Most Dangerous for Fertilizers

Cornell researchers have come up with a good reason why municipal sludges contaminated with toxic chemicals shouldn't be used as a substitute for fertilizer.

Insects may pick up the chemicals by feeding on sludge-grown plants, resulting in significantly shorter life spans and lower reproductive rates, according to entomologist Thomas Culliney.

The problem may not end there, he said. Toxic chemicals picked up by insects may find their way into the food chain when other animals, such as shrews, mice, and birds, prey on the affected insects and earthworms.

Many sludges from large cities are known to be contaminated with cadmium (a heavy metal) and PCBs, among other toxic chemicals.

"Our study suggests that toxic chemicals in the sludge, which include heavy metals, PCBs (polychlorinated biphenyls), and insecticides, may affect the insects by reducing the plants' nutritional quality or even poisoning them directly," said Culliney.

Whether this actually occurs widely under natural conditions is yet to be investigated, he said.

Culliney studied the effects of chemical contaminants in sludge on insects and plant growth under laboratory and field conditions, in cooperation with two other Cornell scientists — David Pimentel, an entomologist, and Donald Lisk, a toxicologist. All are in the College of Agriculture and Life Sciences.

The Cornell study is the first of its kind examining the effects of chemical contami-

nants on land-dwelling insects.

The Cornell researchers studied green peach aphids feeding on collard plants grown in sludge-treated soil.

"Our study has a major implication for municipalities across the country that consider the use of their sludges as fertilizers or dispose of the sludge in areas such as strip mines or clear-cut forest areas," Culliney said.

Approximately 25 percent of an estimated 620 million tons of sludge produced annually in this country is used for agriculture because sludge contains many nutrients essential for plant growth and can improve the soil structure.

"But sludge from any large city that has heavy industry, or even from some small towns, can contain dozens of hazardous chemicals," Culliney cautioned. "It's important that we study these substances carefully and learn more about their potential effects before they are applied to our land."

Materials Science Center Adds New Copy Machine

The Materials Science Center has added the new Xerox 1090 marathon copier as a permanent installation in the MSC Xerox facility in 623 Clark Hall.

Both the 1090 and the Xerox 1055 offer reduction and enlargement capabilities. Copy speed of the new machine is 92 per minute.

The center is open weekdays for walk-ins, or by reservation at 255-3929.

COSEP Pre-Freshman Program Helps to Soften Initial Shock of Cornell

"I think it will do away with the initial shock of coming to Cornell." That's how Karen Ross of Brooklyn describes Cornell's Pre-Freshman Summer Program, now in session.

Ross is living and studying in North Campus High Rise Dorm Number 1 for six weeks this summer with 155 other participants in the developmental program sponsored by the university's special developmental program.

Each summer, Cornell brings talented minority students to campus to refine their academic and social skills before the real Cornell year begins. The university's schools and colleges recommend certain entering freshman for the program based on their native language, proximity to Cornell, and academic or economic standing.

Whereas other members of the Class of 1990 will have their orientation to Cornell in late August, the pre-freshmen are already becoming acquainted with the university — its tough course work, its bizarre customs, and its 740-acre campus.

"I practically know the campus already and I've only been here three days," said Alexis Montero, a pre-freshman from New York City who plans to study psychology in the College of Arts and Sciences.

Shelly Pantan from Westchester County said, "I hadn't realized it was so huge."

Summer program director William Collins says the purpose of the program is not to imitate the real Cornell semester but to develop positive skills and attitudes for it. "I don't think it's possible for a six-week summer session to be equal to a 14-week semester where you have far more pressure and competition," said Collins, who also serves as director of the Learning Skills Center.

"We realize that many students entering college don't have good study habits," Collins said. "They've never needed them in high school." The program, through its courses, workshops, and tutoring, attempts to foster those crucial study skills.

Collins says the summer program is not remedial. Participants take one regular summer session course and one or two other developmental courses in biology, chemistry, or math. Cornell upperclassmen serve as tutors.

Willette Bell, a pre-freshman from Manhattan who will study biology in the College of Arts and Sciences this fall, hasn't been overwhelmed by her studies yet. "They're not difficult," she said of her three courses. "It's just a lot of work."

Participants are kept busy not just by their academics but by field trips, guest lectures, and a host of social and cultural activities. The program's ten-page activities schedule lists events for every single day of the summer.

Activities coordinator Pamela Walker, a Cornell junior, said students are not required to attend all the events — but she recommends that they take full advantage of the non-academic part of the summer program, too.

The purpose of the activities is "to round out the summer, to keep them from getting bored," said Walker, a consumer economics

major in the College of Human Ecology who participated in the 1983 version of the pre-freshman program.

Collins, heading the program for his tenth year, said, "If I had to tell you what I like most about the summer program, it's the students that come here, full of energy and enthusiasm."

All concerns the pre-freshmen have — everything from academic difficulties to extra spending money — are tackled by Collins and his staff. And, consequently, Collins' office in Olin Hall becomes hectic at times — with a constantly-ringing telephone, mounds of paperwork, and a line of anxious students waiting for appointments outside.

All students asked about the program were extremely impressed so far. Jayne Hunt from New York City, who will enter the School of Industrial and Labor Relations this fall, called the program "well organized," with staff members attending to every detail.

Vanessa Lopez-Roc Afort, a pre-freshman from Puerto Rico and future architecture student, summed up the program this way: "They take care of you."

Future editions of this summer's *Chronicle* will carry stories on two other Cornell summer programs — a sports camp and a college preparatory program for high school students.

Uranus

Continued from Page 1

the planet's stratosphere.

One of the few normal features of Uranus is the temperature gradient of its atmosphere, according to Gierasch. Just like on Earth, the Uranian atmosphere grows colder with increasing altitude, then reaches a minimum before becoming warmer in the sun's radiation.

For satellite specialist Peter Thomas, senior research associate at Cornell's Center for Radiophysics and Space Research, the Voyager 2 pictures of the Uranian moons are remarkably clear, but the explanation of their geologic processes is not.

No two of the five largest satellites have much in common, according to Thomas, an author of the July 4 Science article on imaging science results. Both Titania and Ariel are pocked with impact craters and webbed with fault lines. But only Ariel displays valleys partially filled with extruded material, reminiscent of Earthly glaciers. The exact composition of the material is unknown, but probably is largely ice, he says.

Most puzzling of all, says Thomas, is the moon Miranda. While half of Miranda's surface is covered with "relatively bland, old, cratered terrain," three strange features cover the rest and catch the eye. They are assemblages of dark and bright ridges and escarpments — some parallel and some intersecting — all arranged in almost perfect rectangles, 200 to 300 kilometers across.

Grasping for geological terminology to describe structures never seen before, the astronomers are calling the Miranda features "banded ovoids."

Naming the square pegs in a round moon was the easy part. Figuring out how they were made will take longer.

The astronomers have time to analyze the millions of pieces of data from Uranus and ponder the latest mysteries, however. Voyager 2 won't reach the next planet on its itinerary, Neptune, until 1989.

Olympians, All-Americans Among 22 Named to Hall of Fame

Olympians and All-Americans are among 22 new inductees named to the Cornell University Athletic Hall of Fame in late June.

Formal induction will be at the ninth annual banquet Friday evening, Sept. 19, at Barton Hall on the Cornell campus. Including the incoming class, the Hall of Fame now has 223 members.

Thirteen sports, four donors, a photographer and a special friend of Cornell athletics are represented in the 1986 class.

Four Olympians on the list are Walter (Chip) Lubsen '77, a member of three U.S. teams as a rower, including the 1984 eight-oared shell that won a silver medal; Ronald Maierhofer '60, who played soccer for the U.S. in the 1960 Games and was also a member of the U.S. squad that placed third in the 1959 Pan American Games; the late Alma Richards '17, a gold medalist in the high jump at the 1912 Games; and the late Walter

Wright '24, who wrestled for the 1924 U.S. Olympic team.

Maierhofer also won second-team All-America honors in 1959. Other All-Americans to be inducted into the hall are Bruce Arena '73, second team in lacrosse as a mid-fielder, and Jon Levine '76, second-team lacrosse and third member of the 1976 Cornell attack, probably the most potent scoring unit ever assembled.

A pair of first team All-Americans named to the Hall of Fame were Bob Rule '71, named the nation's best lacrosse goaltender his senior year; and Philip Winslow '33, considered by Coach Nicky Bawlf as one of the finest lacrosse players ever developed in college. Receiving All-America honorable mention were Carl Spang '39, named to the Grantland Rice and Associated Press elevens; and Robert Wiggans '40, in both lacrosse and soccer.

Two women named to the Hall of Fame

were Ellie Abranovic '77, who set eight track records; and Constance Cook '41, a four-year competitor in both fencing and hockey.

Other athletes selected were Bob Dean '49, an outstanding back and kicker on the 1948 Ivy League championship football team; Louis Jordan '59, who led the basketball team in scoring all three years; Brian McCutcheon '71, who played on hockey teams that won three Ivy titles; two ECAC championships and one national crown; and Leonard Steiner '51, a three-time Eastern Intercollegiate doubles champion with Hall of Famer Dick Savitt '50.

Donors named to the Hall were the late Leroy Grumman '16, a major benefactor of the university and one of the pioneers in the aviation and aerospace industries; the late Franklin Olin, 1886, who in addition to his outstanding contributions to the university, was also a fine baseball player who played briefly with the Washington Senators; Jo-

seph Pew Jr. '08, who died in 1963, the 1908 IC4A hammer throw champion; and Dan Tooker '39, a treasurer and member of the executive committee of the National Football Foundation and Hall of Fame.

From the media comes Sol Goldberg '46, a photographer at both the Ithaca Journal and Cornell, who has won more than 75 national and regional contests; while Hall of Fame honors go to Joe King '36, named a Presidential Councilor in 1984 and a friend and adviser to many Rochester area athletes at Cornell over the years. King is a former Cornell trustee.

The Cornell Athletic Hall of Fame was first started in 1978 and became a reality through the generosity of the late Ellis H. Robison '18, whose gift to the University resulted in the construction of the Robison Hall of Fame Room that houses the induction plaques and Hall of Fame memorabilia in Schoellkopf Hall.

Calendar

All items for publication in the Calendar section, except for seminar notices, should be submitted (typewritten, double spaced) by mail or in person to Fran Appgar, Central Reservations, 531 Willard Straight Hall, who prepares the Calendar notices for these listings. She must receive the notices at least 10 days prior to publication. Items should include the name and telephone number of a person who can be called if there are questions, and also the subheading of the calendar in which it should appear (lectures, dance, music, etc.).

Seminars only should arrive at the Chronicle office, 110 Day Hall, no later than noon Friday prior to publication.

All deadlines will be strictly enforced.

*Admission charged.

Announcements

Bound For Glory, Summer '86

Live Broadcasts from the Commons Coffeehouse, Anabel Taylor Hall at Cornell, on July 20, featuring Kim Wallach. A Boston based songwriter and singer. Sunday nights from 8 to 11 p.m. on FM93. Admission is free at the Commons Coffeehouse.

Christian Science Monitor

The Christian Science Monitor Resource Files will be available in the Straight Lobby on Tuesday, July 15, and Wednesday, July 23, from 10 a.m. to 4 p.m. The files contain articles covering topics of major importance: national and world politics; social, scientific and economic developments; world relations and peace. All are free.

Museum Sale

A select group of reproductions, prints, and other works of art will be available for purchase from the Herbert F. Johnson Museum of Art beginning Tuesday, July 8. The Museum Sale 1986 will continue throughout the summer, Tuesdays through Saturdays, noon to 4 p.m., in the lecture room.

The works are from many areas of the museum's collections. Asian ceramic pieces, reproductions of African sculpture, small decorative paintings, and duplicates from the print collection including works by Goya, Ellsworth Kelly, Sam Francis, and Al Capp, comprise the sale. A special selection of prints that are not part of the museum's collections also will be available for purchase. Items will be added throughout the summer, and visitors are encouraged to come back several times to view current offerings. Prices will start at \$20.

Storytelling

Mary H. Carey of The Odyssey Story Tellers will present "Tales from Africa and Other Places" Monday, July 14, at noon in the A.D. White House garden. Sponsored by Summer Session.

Nancy Funk of The Odyssey Story Tellers will present "Assorted Folk Tales" Monday, July 21, at noon in the A.D. White House garden. Sponsored by Summer Session.

Garden Tours

A tour of the Robison York State Herb Garden will be given by Raylene Gardner, Cornell Plantations education coordinator, Wednesday, July 16, at noon. The tour will begin at the Cornell Plantations headquarters building. Call 255-3020 for directions. Sponsored by Summer Session.

A tour of the Willard Straight Rock Garden will be given Wednesday, July 23, at noon by Robert G. Mower, Cornell professor of floriculture and ornamental horticulture. The garden is located on campus between Willard Straight Hall and Ganett Health Center. Sponsored by Summer Session.

Dance

The Ithaca Ballet

The Ithaca Ballet will give a free performance Thursday, July 10, at 8:15 p.m. in Alice Statler Auditorium. Sponsored by Summer Session.

The Kaleidoscope Dancers will perform a free concert Friday, July 18, at 7:30 p.m. in Anabel Taylor Hall auditorium. Sponsored by Summer Sessions.

Exhibits

Herbert F. Johnson Museum

"Through Norwegian Eyes: The Paintings of Christian Midjo," May 29 through July 11. The Museum is located on the corner of University and Central avenues. The Museum is open Thursday through Sunday, 10 a.m. to 5 p.m. Admission is free. Please call 255-6464 for further information.

Contemporary Drawings from the Permanent Collection will be shown through Aug. 11. Among the works on display are those by Richard Estes, Willem De Kooning, and Cornelian Susan Rothenberg. The dates of the drawings in the show range from 1960 to 1984, with media ranging from watercolor and magic marker, pencil and crayon, to india ink, gouache, and graphite on paper.

Contemporary Paintings from the Permanent Collection will be shown through August 15. The museum has acquired through gifts and purchases several fine examples of contemporary painting. The works reflect modern artistic styles in both this country and Europe. Included are established artists such as James Brooks, as well as lesser-known artists such as David Budd.

Thirty Years of Contemporary Prints from the Permanent Collection will be shown through Aug. 31. Displaying outstanding modern prints from the museum's holdings, the works include serigraphs, color screen prints, color silkscreens and photosilkscreens, lithography and color lithography, soft ground etching, color monotype, embossing, color woodcut, and collage. Among those featured are Claes Oldenburg, Helen Frankenthaler, Willem and Elaine De Kooning, Frank Stella, Red Grooms, Richard Estes, Robert Motherwell, Roy Lichtenstein, Robert Cottingham, Janet Fish, and Alice Neel.

"American Silver: Selections from the Mary Palmer Rockwell Collection" will be shown July 8 through Aug. 31. Sixteen examples of American silver by some of American's leading early silversmiths are on exhibition for the first time. The pieces represented span one hundred years of silver craftsmanship, from the late seventeenth century to the late eighteenth century, illustrating transitions in style and form found in American silver work during this period. Included are pieces by Peter Van Dyck, John Heath, Jeremiah Drummer, Meyer Meyers, and Paul Revere. These excellent examples are on loan from Mary Palmer Rockwell, the generous benefactor of the museum's renowned Asian collection.

"Articipation on the Commons," an annual summer event sponsored by the museum's education department encouraging public participation in creating art, will take place again this year under the Central Pavilion of Ithaca's downtown Commons on July 10, 11, and 12 from noon to 3 p.m. Featured this year is Japanese stencil making, an art form often neglected. Participants will use actual Japanese materials, such as 'katagami', a stencil paper fabricated in layers, laminated with juice from persimmons and sun-dried, and 'marukiri', a pointy implement used to punch the stencil with a design. This free event, open to adults and children eight years and above, will begin with an hour-long demonstration of the different techniques used in cutting the 'katagami'. A two-hour workshop will follow, encouraging participants to design and carve their own stencils.

"Eye Openers", a three-day summer workshop focusing on the arts of China, Japan and Korea will be held at the museum on July 22, 23, and 24 from 9:50 a.m. to 1 p.m.; geared for students 11 to 14 years of age, all ages are welcome to attend. A three-day agenda follows:

On July 22, participants will make name chops, the red seals appearing on Chinese paintings and documents. Name chops, signatures or saying that pertain to particular paintings, have been used in China for over two thousand years. Seals lend legal validity to a painting or document; individuals may have one or a number of such personalized seals.

On July 23, miniature 'byobu,' Japanese screens, will be constructed and painted by participants. Commonly used in the Han dynasty, 'byobu' are dividers interior space and outdoor enclosures. They consist of four to eight panels, easily folded and portable.

On July 24, Korean motifs made with stencils will be featured; these symbolic designs were often placed on celadonware, such as vases and bowls. Examples from the museum's collections will be studied for symbolism and technique in design before participants create their own Korean-motif stencils.

There is a ten dollar fee for this series of workshops. Those interested should pre-register with Barbara Marmora in the education department.

The Herbert F. Johnson Museum of Art, located on the corner of University and Central Avenues on the Cornell campus, is open Tuesday through Sunday, 10 a.m. until 5 p.m. Admission is free. Please call (607) 255-6464 for further information.

Films

Unless otherwise noted, films are sponsored by Cornell Cinema.

Thursday

July 10, 8 p.m. *Uris Hall Auditorium. "Jazz Cartoons". Shown with "The Fabulous Dorseys" (1974), directed by Alfred E. Green, with Tommy and Jimmy Dorsey.

Friday

July 11, 7:30 p.m. *Statler Auditorium. "Annie Hall" (1978), directed by Woody Allen, with Woody Allen and Diane Keaton. Limited.

July 11, 8 p.m. *Uris Hall Auditorium. "Day for Night" (1973), directed by Francois Truffaut, with Francois Truffaut and Jaqueline Bisset. Limited.

July 11, 9:45 p.m. *Statler Auditorium. "Romancing the Stone" (1984), directed by Robert Zemeckis, with Kathleen Turner, Michael Douglas and Danny Denitò. Limited.

Saturday

July 12, 7:30 p.m. *Statler Auditorium. "Romancing the Stone" (1984).

July 12, 8 p.m. *Uris Hall Auditorium. "Children of Paradise" (1943-45), directed by Marcel Carne, with Jean-Louis Barrault. Open.

July 12, 10 p.m. *Statler Auditorium. "Annie Hall" (1978).

Sunday

July 13, 7 p.m. *Uris Hall Auditorium. "Breakfast at Tiffany's" (1961), directed by Blake Edwards, with Audrey Hepburn, George Peppard and Mickey Rooney. Limited.

July 13, 9 p.m. *Anabel Taylor courtyard. "Sparrows" (1926), directed by William Beau-dine, with Mary Pickford. Shown with "One Week" with Buster Keaton. Live electronic music will accompany both films. Rain location: Anabel Taylor Hall auditorium. Sponsored by Summer Session.

Monday

July 14, 8 p.m. *Uris Hall Auditorium. "Mother Kusters Goes to Heaven" (1975), directed by Rainer Werner Fassbinder with Brigitte Mira. Open.

Tuesday

July 15, 8 p.m. *Uris Hall Auditorium. "Desire" (1936), directed by Frank Borzage, with Marlene Dietrich and Gary Cooper. Limited.

Wednesday

July 16, 8 p.m. *Uris Hall Auditorium. "Head" (1968), directed by Bob Rafelson, with the Monkees. Limited.

Thursday

July 17, 8 p.m. *Uris Hall Auditorium. "Rasp-utin" (1975), directed by Elem Klimov, with Alex-

ei Petrenko and Anatoly Romashin. Open.

Friday

July 18, 7:30 p.m. *Statler Auditorium. "The Big Chill" (1983), directed by Lawrence Dasdan, with Glenn Close, William Hurt. Limited.

July 18, 8 p.m. *Uris Hall Auditorium. "Montenegro" (1981), directed by Dusan Makavejev, with Suan Anspach and Erland Josepheson. Limited.

July 18, 10 p.m. *Statler Auditorium. "Witness" (1985), directed by Peter Weir, with Harrison Ford, Kelly McGillis, Lukas Haas and Alexander Gudunov. Limited.

Saturday

July 19, 7:30 p.m. *Statler Auditorium. "Witness" (1985).

July 19, 8 p.m. *Uris Hall Auditorium. "The Hidden Fortress" (1958), directed by Akira Kurosawa, with Toshiro Mifune. Open.

July 19, 10 p.m. *Statler Auditorium. "The Big Chill" (1983).

Sunday

July 20, 7 p.m. *Uris Hall Auditorium. "Silkwood" (1983), directed by Mike Nichols, with Meryl Streep, Kurt Russell and Cher. Limited.

July 20, 9 p.m. *Anabel Taylor Hall. "A Girl in Every Port" (1926), directed by Howard Hawks, with Louise Brooks and Victor McLaglen. Shown with "His Royal Slynness," directed by Harold Lloyd. Live electronic music will accompany both films. Rain location: Anabel Taylor Hall auditorium. Sponsored by Summer Session. Open.

Monday

July 21, 8 p.m. *Uris Hall Auditorium. Speaker P. Adams Sitney with "Two or Three Things I know About Her" (1966), directed by Jean-Luc Godard, with Marina Vlady. Open.

Tuesday

July 22, 8 p.m. *Uris Hall Auditorium. "Holiday" (1938), directed by George Cukor, with Katharine Hepburn and Cary Grant. Open.

Wednesday

July 23, 8 p.m. *Uris Hall Auditorium. "My Fair Lady" (1964), directed by George Cukor, with Audrey Hepburn, Rex Harrison and Stanley Holloway. Limited.

Thursday

July 24, 8 p.m. *Uris Hall Auditorium. "Anou Banou" (1982), directed by Edna Politi. Shown with "Noa at 17" (1981), directed by Yirzhak Yeshe-shuran. Open.

Lectures

A lunchtime series called the Great Books Seminars will take place on Tuesdays, noon to 1 p.m., in the A.D. White House, Room 201, from July 1 through Aug. 5. "Pride and Prejudice" by Jane Austin and "One Hundred Years of Solitude" by Garcia Marquez are the subject of the six-week series. Sponsored by Summer Session.

"Agricultural Changes in New York State: Impact on Families and Communities" is the subject of a lunchtime lecture Thursday, July 10, at noon in Room 213 Ives Hall. The speaker will be Jan W. McGonigal, senior extension associate and program coordinator of Cornell Cooperative Extension. Sponsored by Summer Session.

Recombinant DNA Experiments Bring Reminder to Researchers

Animal experiments with recombinant DNA viruses conducted at Cornell in 1984 violated a federal guideline, according to a report filed by the university with the National Institutes of Health.

Because no genetic manipulation was conducted at Cornell, the researchers believed that their work was not subject to local review and that an earlier NIH authorization for the research was sufficient, according to a report by Cornell's Committee on Recombinant DNA Research. Only animal inoculation experiments were done at Cornell.

The university has now reminded all researchers of the specific guideline requirements.

The experiments followed proper scientific procedures and posed little or no health risks to researchers or the public, according to an investigation by the rDNA committee.

But the researchers failed to notify Cornell's rDNA committee, as required by federal guidelines. The committee's 15-page report, which was sent to NIH June 27, says the violation "is traceable to, but not excused by" a misunderstanding by the researchers.

The National Institutes of Health funded the experiments.

Joseph M. Ballantyne, vice president for research and advanced studies, sent a letter July 2 to all principal investigators at Cornell, reminding them that "all research involving the use of recombinant DNA molecules must be reported to the Cornell Committee on Recombinant DNA Research ... even if the molecules are obtained elsewhere."

The rDNA committee learned the full magnitude of the experiments in February 1986, when they were mentioned in a paper for a scientific journal.

The experiments involved inoculating horses, cattle, and cats with recombinant DNA viruses that contained genes from human herpes simplex, hepatitis B, influenza, and other viruses to test the animals' im-

July						1986
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Seminars

Physiology-Biochemistry: "Hormones, Extracellular Matrices and Expression of Cytoskeletal Proteins During Cell Differentiation," Dr. Abraham Amsterdam, Department of Hormone Research, the Weizmann Institute of Science, Israel, 12:20 p.m. Friday, July 11, 105 Riley Robb.

Graduate Bulletin

If you are working on your thesis or dissertation, the Graduate School urges you to attend one of the summer THESIS PREPARATION meetings. The meeting for the master's thesis will be held at 10:30 a.m. Wednesday, July 16. The meeting for the doctoral dissertation will be held at 9 a.m. Wednesday, July 16. Both meetings will be in the Robert S. Morison Seminar Room of Corson/Mudd Hall. The thesis adviser and the director of the Graduate School records office will discuss preparing and filing theses and will answer questions about registration, fees, etc. Tom Young, from Computer Services, will discuss CUTHESIS and word processing on the Apple Macintosh and the IBM PC.

FELLOWSHIP INFORMATION: Further information on the fellowships listed below is available at your graduate faculty representative's office and the Graduate Fellowship and Financial Aid office, Sage Graduate Center.

THE AMERICAN MUSEUM OF NATURAL HISTORY: Lerner Fund for Marine Research provides modest financial assistance for scientists starting careers in marine biology. The Frank M. Chapman Fund provides grants-in-aid for ornithological research and postdoctoral fellowships. The Theodore Roosevelt Memorial Fund gives financial assistance to individuals conducting research in North America on wildlife conservation or natural history related to the activities of the American Museum of Natural History.

BEHAVIORAL SCIENCES RESEARCH BRANCH of the National Institute of Mental Health. The branch supports study on behaviors having potential for serious adverse mental health consequences and for normative studies on behavior.

INTERNATIONAL FOUNDATION OF EMPLOYEE BENEFIT PLANS, intended to encourage graduate students to pursue the study of problems having legal, economic, social or political consequences for the employee benefits industry in the U.S. or Canada. Awards consist of a stipend not exceeding \$3,000 for a 12-month period. Applicants must be citizens or nationals of the U.S. or Canada.

mune response. The viruses are not harmful to animals.

The recombinant viruses were constructed by a group at the New York State Department of Health in Albany directed by Dr. Enzo Paoletti. Paoletti had permission from NIH to construct the viruses and to perform inoculation experiments at the health department and at other, unspecified locations.

The viruses were used in inoculation experiments at Cornell by teams under the direction of James H. Gillespie and Fredric W. Scott, professors of veterinary microbiology in the College of Veterinary Medicine, and Dorothy F. Holmes, a senior research associate at the veterinary college.

The experiments were conducted between Feb. 29 and Oct. 25, 1984.

"Highly trained and experienced personnel were involved in all aspects of the work," according to the report. "We are satisfied that the health risks associated with their experiments ... were very low."

Ballantyne wrote in his letter that: "Substantial amounts of research are conducted at the university which do not receive scrutiny in the Office of Sponsored Programs. It is important for all principal investigators to assume responsibility for notifying the University Recombinant DNA Committee when they contemplate doing work involving such molecules."

"This matter serves to remind us of the importance of reporting all work involving recombinant DNA molecules, and has helped us improve our procedures for notifying principal investigators of their responsibilities under the NIH guidelines," Ballantyne added. "In the future, for example, the Office of Sponsored Programs will contact principal investigators directly at the time awards which involve recombinant DNA research are made."

The committee's chairman is William C. Ghiorse, associate professor of microbiology in the College of Agriculture and Life Sciences.

After the Celebration, Contemplation; Our Liberty A Constantly Changing Concept, Says Kammen

By MARK EYERLY
Despite the buoyant and boastful celebrations surrounding the Statue of Liberty's centennial, liberty in America still takes an occasional beating, says a Cornell historian.



KAMMEN
Consider this summer's Supreme Court ruling upholding a Georgia law against sodomy, allowing states to regulate private sexual behavior. That decision is "a scandalous setback" for liberty, says Michael Kammen, who predicts that the decision will be reversed within 15 years.

But other recent Supreme Court rulings — defining sexual harassment as a violation of civil rights and upholding affirmative action programs and abortion as constitutional — maintain or expand the notion of personal liberty through privacy, equal opportunity, and due process of law, he points out.

The rulings demonstrate that liberty is an evolving, constantly changing concept that was once defined in relationship to authority, property, and order, but now has been expanded to include justice, sometimes privacy, and, increasingly, equality. The distinctively American concept of liberty undergoes continuous alteration, Kammen says.

Kammen, winner of the 1973 Pulitzer Prize in history, traces the development of

American liberty in his new book, "Spheres of Liberty: Changing Perceptions of Liberty in American Culture," published July 4 by the University of Wisconsin Press. The book is richly illustrated with 23 examples of liberty in American iconography.

"The American experience, overall, has been one of progress blemished by setbacks," Kammen writes. "American spheres of liberty have expanded more often than not."

"Individual liberty joined with personal privacy may not yet enjoy an unchallenged place in the pantheon of American freedoms; but after twenty years of supportive decisions, its niche is looking more and more secure."

"The meaning of liberty in America has predominantly been explained in relation to some other quality," Kammen adds. "With very few exceptions, Americans have not been inclined to undertake theoretical explanations concerning liberty." Instead, liberty has been defined by political and judicial responses to practical problems.

Kammen's book, first delivered as a series of lectures at the University of Wisconsin, already has been lauded as a "bracing study" by the Philadelphia Inquirer in a July 6 review and has been praised by scholars in the field as "brilliant" and "perceptive."

"It is almost awesome, the way Kammen has delineated the subtle changes in mood and content evoked by the use of the word 'liberty' over the centuries," says University of Alabama historian Forrest McDonald.

In colonial America, liberty was largely defined in connection with property rights and the need for authority. During the Revolutionary Era, a new recognition was given to political liberty; citizens had a right to participate in the political system, regardless of property ownership. A profound shift had occurred: "freedom from" had been enhanced by "freedom to."

The Civil War epoch emphasized the moral component of liberty, requiring that a free society acknowledge the importance of human rights for all. Twentieth century America has added justice and, increasingly, privacy to the notion of liberty.

The next stage in the growth of American liberty will require expanded social acceptance of the compatibility between liberty and equality, Kammen suggests.

For much of the past two centuries, Americans have valued liberty above equality, he explains. The two often have been in tension; many have felt that ensuring equality is likely to impinge on someone's freedom. But there is a growing commitment to equality, as demonstrated by the perceived need for affirmative action programs and greater sensitivity to women's rights. In the future, equality will likely take its place with justice as indispensable components of a free society, Kammen predicts.

The essence of Kammen's argument was eloquently epitomized by Walter Lippmann in 1920: "I can recall no doctrine of liberty which, under the acid test, does not become contingent upon some other ideal."

Kane, Davis In Olympic Hall of Fame

Robert J. Kane, dean emeritus of athletics and physical education at Cornell and the president of the United States Olympic Committee from 1976 to 1980, is one of five inductees into the United States Olympic Hall of Fame for 1986.

He will be inducted during ceremonies in Houston Aug. 1, along with Bruce Jenner, gold medal winner and world decathlon record-setter during the 1976 games; swimmer Debbie Meyer, who won three gold medals at the 1968 games; hurdler Glenn Davis, who won three gold medals in two Olympiads, and the gold medal-winning 1956 basketball team led by Bill Russell and K.C. Jones.

Davis also has Cornell connections. He was assistant track coach here from 1962 to 1965, and head track coach here in 1966.

Kane originated the idea of the U.S. Olympic Festival and put it into motion in 1978 at Colorado Springs. It was then called the National Sports Festival. He led the USOC through a great period of growth, only to be bitterly disappointed by the boycott of the Moscow Games led in 1980 by the United States at the request of President Jimmy Carter.

Kane lives on the west shore of Cayuga Lake and is general chairman of the City of Ithaca Centennial Commission, for a year-long celebration that will begin June 1, 1988.

PEOPLE

Sponsored Programs' Thomas Rogers Retires After 24 Cornell Years

By ANNA MORATZ
Thomas Rogers, director of the Office of Sponsored Programs and associate vice president for research, retired June 30.

A national search for Rogers' successor is under way. Until a new director is appointed, Beulah (Buty) Miller, associate director, will be acting director.

Rogers, who joined Cornell in 1962, has seen the university's research expenditures grow to more than \$200 million a year.

Announcing Rogers' promotion to coordinator of research in 1963, the Cornell Chronicle noted that the university's research projects totaled about \$50 million. The office he headed for 24 years helps to maintain Cornell's status as one of the nation's five top research universities — a long way from its national ranking in 17th place in 1971, when



ROGERS

NSF started compiling these statistics.

Provost Robert Barker said, "Tom's ability to represent faculty interests effectively and his motivation to help them manage their linkages with granting agencies have been extraordinary."

Many of the major increases in scientific advancements of the 60s and 70s had an impact on Cornell and created new sources of support. Opportunities in high energy physics, materials research, and space sciences, matched by the excellence of Cornell's scientists, led to the creation of numerous interdisciplinary research centers on campus.

Like many others at Cornell, the sponsored programs office learned to deal with an ever-increasing volume of government regulations. Virtually absent in the early days, issues such as animal and human welfare, biohazards, and environmental health are now important matters. Increasingly difficult negotiating processes and the rapid growth in corporate funding have added other layers of complexity in sponsored research administration.

Joseph Ballantyne, vice president for research and advanced studies, said, "Tom has always been a leader in protecting academic freedom at Cornell and has defended the free flow of information against a multitude of attempts by sponsors to curtail that freedom. He has inculcated a respect for faculty concerns in the Office of Sponsored Programs. He is a master at solving difficult

contract situations and in smoothing over misunderstandings which arise in the negotiating process."

As secretary and a member of the executive committee of the board of the Cornell Research Foundation, Rogers has assisted Cornell faculty with patent matters to help

make the knowledge they have generated available to the nation and the world.

Anna Moratz is executive staff assistant to the vice president for research and advanced studies.

Chapman Directs News Service

Veteran ABC News correspondent Irwin M. Chapman has been appointed to the new position of executive director and editor-in-chief of the Cornell University News Service, with a mandate to expand nationwide reporting on Cornell's broad-ranging education and research activities.



CHAPMAN

Announcing the appointment effective July 7, John F. Burness, vice president for university relations, said: "Irv Chapman brings a wealth of experience and accomplishment to Cornell's news operation. His appointment, following a national search involving more than 175 candidates, marks a new era in the university's effort to bring the exceptional quality and contributions of the people and programs at Cornell to the attention of the nation and the world. I'm confident that under Chapman's leadership Cornell will succeed in its goal of establishing the most professional university-based news operation in the nation."

During a 22-year career with the American Broadcasting Company, Chapman served as bureau chief for ABC News in Moscow and

Tokyo, and also was based in Washington, Los Angeles, and New York City.

Before joining ABC, he inaugurated a Washington bureau for Radio Press International, and was its White House correspondent during the Kennedy administration.

Among the stories Chapman covered for ABC were presidential nominating conventions and campaigns, most recently Geraldine Ferraro in 1984 and Ronald Reagan in 1980; the final engagements of U.S. troops in South Vietnam and the rush of refugees that followed the war; the first U.S.-Soviet summit conference ever held in Moscow; and the economic rise of Japan.

He was in both Buenos Aires and London during the Falklands crisis, in London for the royal wedding of Lady Diana and Prince Charles, in Austria when Polish refugees fled the imposition of martial law in their country, and in Poland when Pope John Paul II revisited his native land.

"Cornell's commitment to an expanded and highly professional news bureau, matching its century-old commitment to excellence in education and research," Chapman said, "offers a significant career challenge. I look forward to learning from contact with its distinguished faculty, and interacting on their behalf with friends and colleagues in the news media."

Mary E. Purchase Receives Honor

Mary E. Purchase, professor of textiles and apparel at Cornell, is the recipient of the 1986 Award of Merit from the American Society for Testing and Materials. In addition, she has been elected chairman of ASTM's committee on vacuum cleaner standards.



PURCHASE

Purchase, a specialist in household appliances and consumer problems, was cited for "her exceptional qualities of leadership, especially her acute technical and editorial insights, and for her diplomatic recommendations that bring together opposing points of view," the ASTM said.

Purchase will serve a two-year term as head of the standards-writing committee on vacuum cleaners, one of 140 ASTM committees. ASTM is a management system for the development of voluntary consensus standards for materials, products, systems, and services.

Moise Wins Veterinary Teaching Award

Dr. N. Sydney Moise is 1986 recipient of The Norden Distinguished Teacher Award at the College of Veterinary Medicine. An assistant professor in the Department of Clinical Sciences, Moise lectures and conducts clinical instruction in cardiopulmonary medicine. She received her undergraduate degree from Texas A&M University and, in 1977, the degree in veterinary medicine. She is a diplomate of the American College of Internal Medicine.



MOISE

The Norden Distinguished Teacher Award recognizes a full-time member of the veterinary medical faculty who demonstrates continued excellence in teaching. Two nominations for the award are made by each of the current veterinary classes. The final selection is made by a committee composed of two previous winners, a junior and a senior student.

Computing Group Honors David Gries

David Gries, professor and chairman of the Department of Computer Science, has been named recipient of the 1985 American Federation of Information Processing Societies' Education Award.

A faculty member in the College of Engineering and the College of Arts and Sciences since 1969, Gries is a specialist in programming languages, programming methodology, and compiler construction.

Gries was cited for "communicating the ideas of compiler construction, structured programming, and program correctness to the computer science students of the world" in a "clear and exciting" fashion.

He is the author or co-author of several textbooks. "Compiler Construction for Digital Computers" (1971) was the first in its

field and the standard text for more than 10 years. It has been translated into Spanish, Italian, Russian, Japanese, and Chinese. His text, "An Introduction to Programming: A Structured Approach" (1973), co-written with Richard W. Conway, was the first undergraduate text to deal extensively with "structured programming." Another textbook, "The Science of Programming," was published in 1981.

Paleen Heads Challenge

William P. Paleen, director of residence life, has been elected president of the board of Challenge Industries in downtown Ithaca. The sheltered workshop is located at the foot of State Street hill.

Number 27

Cornell University

University Personnel Services
Day Hall
Ithaca, New York 14853

Please Post

July 10, 1986

Please Note:

Job Opportunities is a publication of Staffing Services and is distributed each Thursday through the Cornell Chronicle.

Job Opportunities lists current vacancies with the University, consistent with the University's commitment to promotion from within, affirmative action and equal opportunity employment.

Employee Transfer Applications: Em-

ployees who wish to transfer to other jobs within the University should complete a separate Employee Transfer Application form for each position and submit the form(s) to Staffing Services. Individuals with official University layoff status are given preference in referrals.

Applicants: Applications for employment are available at Cornell University's

employment office at East Hill Plaza at the intersection of Ellis Hollow Road and Judd Falls Road in Ithaca, from 9:00 a.m. to 12:00 noon, Monday through Friday. Completed applications can be submitted through the mail to University Personnel Services, Staffing Services, 160 Day Hall, Ithaca, NY 14853.

This listing is also available on CUINFO, Cornell University's computerized information service. For further details on CUINFO, contact the Information

and Referral Center.

Full-time jobs are 39 hours per week unless otherwise indicated. Jobs listed as SO, U1 and U2 are represented by bargaining units.

inventories and breeding charts. Other duties as assigned. Five days per week including weekends.

Requirements: High school diploma or equivalent; Associate's degree in animal science preferred. Some animal handling experience desirable. Assistant Animal Certification helpful. Must be in good physical condition; able to lift 50 lbs. Pre-employment physical required.

Minimum Biweekly Starting Salary: \$431.43

Technical

Outside applicants for technical positions should submit an employment application, resume, transcripts and list of laboratory techniques and equipment, or computer languages and hardware with which you are familiar. This information will be kept active for six months. For each position that you are qualified and wish to be a candidate for, submit a cover letter, including position title, department and job number, to Cynthia Smithbower. Current Cornell employees should submit an employee transfer application, resume and cover letter. Outside applicants with training or experience in the following areas are encouraged to apply: biochemistry, chemistry, microbiology, electronics, physics and licensed animal health technicians.

ELECTRONICS TECHNICIAN, GR24 (T274)

Computer Services, Network Communications
Install and maintain computer terminals, personal computers, Local Area Networks and Data Communication links.

Requirements: Associate's degree in electronics or related field or equivalent experience. 3 to 4 years experience diagnosing and repairing problems with computer terminals and Data Communications equipment. Theoretical and practical knowledge of digital and analog circuits and of computer hardware. Apply by July 18, 1986.

Minimum Biweekly Starting Salary: \$607.21

TECHNICIAN, GR22 (T276)

Pharmacology
Conduct experiments and analyze results in research relating to vertebrate phototransduction, epidermal growth factor receptors system. Assist in the design and interpretation of results.

Requirements: Bachelor's degree in biochemistry or related field. Two years laboratory experience required. Additional experience in protein purification in cell culture work helpful. Familiarity with the following equipment helpful: blenders, pH meters, peristaltic pumps, fraction collectors, centrifuges, spectrophotometer and gel electrophoresis equipment. Apply by July 18, 1986.

Minimum Biweekly Starting Salary: \$539.94

TECHNICIAN, GR21 (T122)

Plant Breeding and M/O Biometry
Execute various protocols used in molecular biological research including gel electrophoresis, southern-northern, DNA sequencing, genomic and DNA cloning and DNA extractions. Prepare various buffers and media; order lab supplies; supervise and train students; participate in experimental design and data analysis.

Requirements: Bachelor's degree preferably in biology, molecular biology, biochemistry or related area. Experience or training in biochemistry or molecular biology. At least 1 year of lab experience required. Please send cover letter and resume to Cynthia Smithbower by July 18, 1986.

Minimum Biweekly Starting Salary: \$512.32

TECHNICIAN, GR20 (T275)

Food Science
Assist in research involving the use of non-dairy starter cultures in the manufacture of cheese. Carrying out experimental protocols; routine handling and maintenance of microbial cultures and fermentation equipment; purchasing of materials and supplies.

Requirements: Bachelor's degree in food science, dairy science or microbiology. Experience in dairy or food fermentations or food microbiological technologies. Skills in microbiological and food analysis techniques are essential. Apply by July 18, 1986.

Minimum Biweekly Starting Salary: \$482.33

TECHNICIAN, GR19 (T271)

Diagnostic Laboratory
Function as technical support for laboratories in the diagnostic laboratory.

Requirements: Bachelor's degree with courses in chemistry and microbiology. Familiarity with the following laboratory instruments: pH meters, autoclave, analytical balance, sterile techniques required. Apply by July 18, 1986.

Minimum Biweekly Starting Salary: \$457.09

TECHNICIAN, GR19 (T272)

Agricultural Engineering
Provide technical support for a study evaluating pathogen reduction during the aerobic digestion of sewage sludge in cold climates. Position ends March 4, 1987.

Requirements: Bachelor's degree in engineering, chemistry or related field. Associate's degree with appropriate experience may be acceptable. Some experience in a technical laboratory using analytical chemistry skills helpful. Motor vehicle operators license necessary. Apply by July 25, 1986.

Minimum Biweekly Starting Salary: \$457.09

TECHNICIAN, GR19 (T273)

Genetics & Development
Assist P.I. and postdoctoral associate in experiments. Perform gel electrophoresis, blot transfers, hybridization, and nucleic acid isolation. Routine maintenance of cell cultures and plants. Prepare cell culture media and solutions. Prepare clean, sterile glassware and apparatus for experiments.

Requirements: Bachelor's degree in biological sciences or chemistry or equivalent. Some laboratory experience preferred. Apply by July 25, 1986.

Minimum Biweekly Starting Salary: \$457.09

TECHNICIAN, GR18 (T232) (Repost)

Food Science & Technology (Geneva)
Provide technical assistance involving routine processing of various fruits and vegetables using standardized methods employed in commercial operations and routine chemical and data analyses. Perform chemical and physical analyses of processed products. Collect data on process parameters.

Requirements: Bachelor's degree or equivalent experience in fruit and vegetable processing.

Minimum Biweekly Starting Salary: \$431.43

COMPUTER OPERATOR II, GR22 (T261)

Computer Services
Operate small computer system, forms handling equipment, RJE terminal, OMR and laser printers. Assist with inventory. Tuesday - Friday, 4-12:00; Saturday, 9-5:00.

Requirements: Associate's degree in data processing or equivalent experience. At least two years operations experience. NYS driver's license required. Apply by July 18, 1986.

Minimum Biweekly Starting Salary: \$539.94

TECHNICIAN, GR21 (T221) (Repost)

Diagnostic Laboratory
Perform routine and research procedures under the supervision of the Paratuberculosis Program directors and supervisors to support development of new methods for isolation and detection of presence of Mycobacterium paratuberculosis in cattle.

Requirements: Bachelor's degree in microbiology or related biological science with lecture and lab coursework in basic immunology, genetics, and molecular biology. NYS drivers license necessary. At least one year of related lab-

Job Opportunities

Cornell University is an equal opportunity, affirmative action employer.

NOTICE TO ALL APPLICANTS:

JOB OPPORTUNITIES WILL PUBLISH VACANCY ANNOUNCEMENTS ON A LIMITED BASIS UNTIL FURTHER NOTICE. STAFFING SERVICES WILL CONTINUE TO ACCEPT EMPLOYMENT APPLICATIONS AND EMPLOYEE TRANSFER REQUESTS. HOWEVER, THESE ITEMS WILL BE PROCESSED ONLY AFTER INDIVIDUALS WITH OFFICIAL UNIVERSITY LAYOFF STATUS ARE GIVEN PREFERENTIAL CONSIDERATION.

Administrative/Professional

The minimum salaries listed are for recruitment purposes only.

EDITOR-MANAGER (PC2712)

Publications, Geneva
Edit scientific manuscripts for publication in Experiment Station series; prepare news releases for media on important research findings, grants received by station, faculty appointments, promotions, awards, etc. Manage station's publications unit in its editorial, public information, printing, photographic, graphic arts design, and publication and mailing distribution sections, including computerized word processing and phototypesetting operations.

Requirements: Master's degree in communication, preferably in agricultural journalism, or equivalent in experience. Candidate must have a strong background in computerized word processing and phototypesetting. Excellent managerial abilities. Strong interpersonal skills. Please send vita and names of three references to: R.E. Krauss, Assistant to the Director, Jordan Hall, New York State Experiment Station, Geneva, New York 14456.

STUDENT DEVELOPMENT SPECIALIST IV

(PA276)
ILR
Responsible for student personnel services to minority students including recruitment, counseling, student organizations advisor. Coordinate college-level activity with the University-wide program for minority students. Student clientele not limited to minority group members.
Requirements: Master's degree in counseling student personnel or related field or equivalent experience. Three years experience in higher education as advisor or counselor for minority and nonminority students. Please send cover letter, resume, salary history and two letters of recommendation to Ralph D. Jones by August 1, 1986.

MANAGER, MSC X-RAY FACILITY (PT2711)

Materials Science Center
Set up and manage a new state-of-the-art X-Ray Central Facility for the support of the research programs of the Materials Science Center.
Requirements: Ph.D. in physics, materials science, geological sciences. Experience in the use of X-ray diffraction techniques. Please send cover letter and resume to Cynthia Smithbower by July 18, 1986.

BACTERIOLOGIST (PT272)

Veterinary Administration - Saudi Arabia Project
Operation of a Bacteriology Laboratory in the Diagnostic Laboratory at the College of Veterinary Medicine and Animal Resources, King Faisal University, Al-Hasa, Kingdom of Saudi Arabia. One year appointment; renewable for a second year.
Requirements: Master's degree in bacteriology, with experience in the management of a bacteriology program. Please send cover letter and resume to Cynthia Smithbower by July 31, 1986.

SYSTEMS PROGRAMMER III (PT263) (Repost)

Theory Center
Responsible for systems analysis, design, programming and documentation for projects in the Cornell Production Supercomputer Facility under general supervision. Will be a major source of software support and technical leadership for both users and other Theory Center staff.
Requirements: Master's degree or equivalent with a wide range of programming experience utilizing high-level languages. Demonstrated ability to work in scientific or large-scale computing environment. IBM mainframe (VM/CMS) and Fortran experience a plus. Please send cover letter and resume to Cynthia Smithbower.

ADMINISTRATIVE SUPERVISOR II (PA2710)

Telecommunications
Perform, supervise, direct and advise work related to the business and personnel aspects of department. Related activities may include funds management, staff supervision, management analysis, property and space management and information and data systems development and management.
Requirements: Bachelor's degree required; advanced degree preferred. 3 to 5 years administrative or office supervisory responsibility. Excellent verbal and written communication skills. Knowledge of fund accounting, Cornell accounting system preferred. Please send cover letter and resume to Ralph D. Jones by July 28, 1986.

PROJECT COORDINATOR (PA277)

Telecommunications
Act as liaison between Telecommunications department and all campus units; assist in design of Telecom system to meet department needs. Coordinate the implementation of projects with campus units; develop, document, and initiate training methods.
Requirements: Bachelor's degree required, advanced degree desirable. 2 to 3 years telecommunications or large project experience and excellent communication and organization skills required. Please send cover letter and resume to Ralph D. Jones by July 28, 1986.

PROGRAM COORDINATOR (PA273)

International Student Office
Assist in administering the Exchange Visitor Program (J-1 visa) for foreign academic staff and students. Assume responsibility for international student and staff educational and adjustment programming and responsible for writing and producing office publications.
Requirements: Bachelor's degree or equivalent. Signifi-

cant overseas living experience, e.g. Peace Corps or an intercultural program. Experience in an administrative capacity. Strong written communication and organizational skills. Please send cover letter and resume to Ralph D. Jones by July 25, 1986.

RESEARCH SUPPORT SPECIALIST II (PT2714)

Food Science
Prepare and analyze food and biological samples for trace contaminant analysis by chromatographic and related techniques. Develop new analytical procedures for biological samples. Assist in handling lab animals. Plan, execute, and report research projects. Maintain laboratory equipment and supplies.

Requirements: Master's degree in chemistry or biochemistry or Bachelor's degree with at least two years research experience with modern analytical instruments. Experience with gas or liquid chromatography. Mass Spectrometry experience helpful. Previous research experience in a modern laboratory. Ability to work on team projects. Please send cover letter and resume to Cynthia Smithbower by July 18, 1986.

RESEARCH SUPPORT SPECIALIST I (PT2713)

Natural Resources
Coordinate collection and compilation of data generated from multiple observations of Canada geese wearing neck collars. Develop computer programs for extensive data sets, analyze results, write detailed reports and present findings to professional audiences. Appointments ends October 1987.

Requirements: Master's degree or equivalent. Extensive experience working with population dynamics of waterfowl. Preference for person with work experience related to Canada geese. Good biological background with strong statistical and computer skills. Oral and written proficiency essential. Please send cover letter and resume to Cynthia Smithbower by July 25, 1986.

STAFF NURSE (PA274)

University Health Services
Screen, assess, and treat or refer outpatients, utilizing clinical nursing skills. Assist nursing supervisor with the management of clinic flow. 9-month position.

Requirements: Three year nursing program degree required. NYS Nursing license. One or more years recent experience in outpatient nursing. Please send cover letter and resume to Ralph D. Jones by July 25, 1986.

STAFF NURSE (PA275)

University Health Services
Assist the nurse supervisor with the management of clinic flow and operation of the Contraception, Gynecology, and Sexuality Service. 9-month position.

Requirements: NYS Licensed Registered Professional Nurse. CPR certification required before employment or must be obtained within 6 months. Family planning experience desirable. Please send cover letter and resume to Ralph D. Jones by July 25, 1986.

SYSTEMS ANALYST (PT269)

Center for International Studies
Develop, document and maintain computer systems and data base for CIS. Develop on-line accounting system with built in audit controls. Provide advice on all systems problems. Develop documentation to maximize effective use of current systems. Act as system and data base administrator. Interface with vendor.

Requirements: Bachelor's degree or equivalent experience. 1 to 2 years computer related experience. Strong written and oral communication skills. Ability to communicate in nontechnical terms. Sound systems knowledge. Knowledge of Cornell accounting systems desired. Please send cover letter and resume to Cynthia Smithbower by July 18, 1986.

Clerical

CURRENT EMPLOYEES should submit an employee transfer application, resume and cover letter. Also, if you are interested in a career development interview, please contact Esther Smith at 5-6874 to schedule an appointment.

OUTSIDE APPLICANTS should submit an employment application and resume. Applications and resumes typically remain active for three months; typing test scores remain on file for one year. The clerical section uses an automatic referral system whereby outside applicants are referred to positions for which they are considered qualified and competitive. Unless otherwise advertised, requests to be referred to a specific position will not be accepted. Applicants who are referred to a department for review will be contacted by the department if an interview is necessary.

NOTE: OPEN INTERVIEWING FOR OUTSIDE APPLICANTS interested in clerical positions will be conducted every Wednesday afternoon from 1:00 - 6:00pm, in our East Hill Plaza Employment Office. No appointment is necessary, however a short wait may be required. Call Esther Smith or Lauren Worsell if you have any questions.

ACCOUNTS COORDINATOR, GR24 (C274)

Restricted Fund Accounting
Monitor financial activity of restricted accounts; prepare and submit billings to sponsors; monitor receivables; correspond with sponsors and Cornell community; support accounting system to auditors.

Requirements: Bachelor's degree in accounting, business or related field preferred. Strong accounting background required. Familiarity with University accounting system preferred.

Minimum Biweekly Starting Salary: \$607.21

SERVICE REPRESENTATIVE, GR19 (C277)

Telecommunications
Respond to telephone inquiries and implement service requests; answer questions; maintain records; clear service requests; process database changes; occasionally refer caller to other department staff members.

Requirements: High school diploma or equivalent. As-

sociate's degree or equivalent desired. Minimum 3 to 4 years telephone agent desired. Telecommunications experience helpful. CRT familiarity required. Good communications and interpersonal skills essential.

Minimum Biweekly Starting Salary: \$457.09

SECRETARY, GR18 (C2714)

Cooperative Extension Administration
Provide secretarial support for two professional staff. Type and edit correspondence, reports, forms, contracts, etc; maintain calendars; schedule appointments; arrange conferences and meetings; organize and maintain files and survey material; answer telephone, screen calls and take messages.

Requirements: High school diploma or equivalent. Secretarial school desirable. Heavy typing. Minimum 1 to 2 years secretarial experience. Good typing, organizational and communication skills. Familiarity with word processing and personal computer.

Minimum Biweekly Starting Salary: \$431.43

SECRETARY, GR18 (C276)

University Health Services
Assist in overseeing the reception area for the Contraception, Gynecology, and Sexuality Service (CGSS) Unit; act as liaison between CGSS staff and patients; assure and maintain smooth and efficient patient scheduling and flow.

Requirements: High school education or equivalent. Secretarial school desirable. Medium typing. Minimum 1 to 2 years secretarial or office experience. Good interpersonal, communication, and organizational skills essential. Ability to work under pressure. Confidentiality a must.

Minimum Biweekly Starting Salary: \$431.43

SECRETARY, GR18 (C2715)

Cooperative Extension Administration
Provide secretarial support for two professional staff. Type and edit correspondence, reports, forms, contracts, etc; maintain calendars; schedule appointments; arrange conference and meetings; organize and maintain files and survey material; answer telephone, screen calls and take messages.

Requirements: High school diploma or equivalent. Secretarial school desirable. Heavy typing. Minimum 1 to 2 years secretarial experience. Good typing, organizational and communication skills. Familiarity with word processing and personal computer.

Minimum Biweekly Starting Salary: \$431.43

SECRETARY, GR18 (C271)

Center for Research Animal Resources
Operate word processing system. Input various types of documents, technical manuscripts, grant proposals, research and class materials, correspondence, etc; answer phones; arrange meetings, travel, appointments; handle mail. Other duties as assigned.

Requirements: High school diploma or equivalent. Secretarial school desirable. Heavy typing. Experience working in the NYS College of Veterinary Medicine highly desirable. Ability to communicate effectively with large diverse faculty and staff personnel. Ability to work independently and maintain confidentiality. Knowledge of word processing and medical terminology.

Minimum Biweekly Starting Salary: \$431.43

WORD PROCESSING OPERATOR, GR18 (C275)

Law School
Provide secretarial support for law faculty. Use word processor for typing briefs, correspondence, class materials; photocopy; file; prepare travel vouchers; research references and citations in the law library; answer telephone; prepare masters for duplication and use in the classroom.

Requirements: High school diploma or equivalent. Secretarial school desirable. Heavy typing. Experience with WordPerfect word processing software or desire to learn. Some office experience.

Minimum Biweekly Starting Salary: \$431.43

OFFICE ASSISTANT, GR17 (C278)

Telecommunications
Provide clerical support for telecom staff and perform receptionist duties. Support project effort by maintaining special logs, files, and mailing lists.

Requirements: High school diploma or equivalent. Heavy typing. Minimum 9 months to 1 year work experience. Some familiarity with personal computers and word processing.

Minimum Biweekly Starting Salary: \$409.53

OFFICE ASSISTANT, GR16 (C279)

University Health Services
Provide clerical support to facilitate intradepartmental communications. Maintain accurate records of workload and quality control; responsible for distributing and filing laboratory reports. Other duties as assigned. 9-month position.

Requirements: High school diploma or equivalent. Light typing. Minimum one year of office experience in a medical setting. Telephone skills. Medical terminology and interest in the medical field helpful.

Minimum Biweekly Starting Salary: \$390.08

General Service

Outside applicants for general service positions should apply in person at the East Hill Plaza Employment Office, Monday - Friday, 9am - 12 noon. Phone requests and cover letters are not accepted unless specifically requested. Regular Cornell employees should submit an employee transfer application.

ANIMAL TECHNICIAN, GR18 (G276)

Laboratory Animal Services - Statutory
Responsible for daily care of lab animals, including proper care and feeding, providing fresh water and exercise, general cleaning and maintenance of cages, pens and environment. Maintain laboratory animals identification,



Fireworks light up the sky over campus July 1 in this view from West Campus.

Cornell Researcher Studies Fish Tumors for Pollution Connection

By KAREN REDMOND

When the fisherman's catch looks too ugly to eat, that's the time to call Marilyn Wolfe, senior research associate at the College of Veterinary Medicine at Cornell. The unattractiveness of the fish may be due to papillomas, benign tumors found in the fish's mouth or occasionally on the body.

Thus far, Wolfe has identified papillomas in brown bullheads and other lesions in walleyes, large-mouth bass and lake trout.

The New York State Department of Environmental Conservation provides funds for Wolfe to determine the extent, nature, and causes of anomalies observed in fish in New York. One of two fish pathologists associated with DEC, she checks only wild fish caught in the state's waters. Wild fish are those fish not raised in hatchery systems.

While it's too soon to tell what causes the papillomas, there is concern that their development may be traced to exposure to contaminants in the water. In this instance, the affected fish may be a "first alert" for pollution problems that have the potential to affect human health.

Pollution is not the only suspect; a virus may be at the root of the problem. Wolfe notes that, in one body of water she studied, brown bullheads had a significantly higher incidence of papillomas than yellow bullheads. This suggests that a virus causes the growths, because a virus can be species specific. In addition, analysis of water and surface sediment in one area where affected fish were caught showed low or nonexistent levels of contaminants.

"There is so much we don't know about the background incidence of lesions in wild fish populations. We just haven't worked with them long enough," Wolfe says.

To check the historic incidence of papillomas in fish, Wolfe recently visited the New York State Museum in Albany that houses a collection of fish species caught in the 1930s. Surprisingly, she said, several of the preserved fish had papillomas.

Wolfe estimates it will be five years before sufficient data can be compiled to pinpoint patterns of lesions and relate them to contaminants or other causes.

She and Anita Aluisio, a technician at the College of Veterinary Medicine, are looking at fish from around the state, and accumulating a computer data base for lesions. They're also examining tissue samples with

the electron microscope for evidence of virus infection.

This September, Wolfe will participate in a Lake Ontario field study in cooperation with the DEC. They'll examine fish for tumors and other lesions and, if possible, try to determine the cause.

Karen Redmond is a staff writer in the College of Veterinary Medicine.

SPIF to Mark Mars Mission's 10th Birthday

The 10th anniversary of the Viking spacecraft missions to Mars will be celebrated at Cornell with lectures on space exploration, film showings, and an open house at the university's Spacecraft Planetary Imaging Facility (SPIF).

It was July 10, 1976, when the first Viking Orbiter spacecraft released its Viking Lander for a touchdown on the red planet.

"SPIF has played a significant role in the decade of international research that followed the Viking mission," said Joseph Ververka, professor of astronomy at Cornell and a member of the 1976 Viking imaging team.

Anniversary events, all free and open to the public, include:

- "Viking Explores Mars: A Decade of Discovery," an illustrated lecture by Peter Thomas, senior research associate in the Cornell Center for Radiophysics and Space Research, at 7:30 p.m. Wednesday, July 23, in Hollis E. Cornell Auditorium of Goldwin Smith Hall.
- "Future Exploration of Mars," an illustrated lecture by Fred Jaquin, graduate student in astronomy and a specialist in planetary meteorology, at 7:30 p.m. Friday, July 25, in Hollis E. Cornell Auditorium of Goldwin Smith Hall.
- Open House at the Spacecraft Planetary Imaging Facility, 317 Space Sciences Building, 10 a.m. to 3 p.m. Saturday, July 26, with video displays, slide shows, models of spacecraft, planets, and satellites, and a continuous showing of the film "Mars in 3-D." Special 3-D glasses will be provided.

Job Opportunities

oratory experience highly desirable. Apply by July 18, 1986.

Minimum Biweekly Starting Salary: \$512.32

TECHNICIAN, GR21 (T263)
Diagnostic Laboratory
Assist in development of serological assays on automated equipment; conduct experiments and reduce and summarize data using computerized routines. One year term.
Requirements: Bachelor's degree or equivalent in microbiology, serology or related field. Preferably two years experience in serology or immunology laboratory and a knowledge of computers. Familiarity with general lab equipment; centrifuges, balances, pipetors. Apply by July 18, 1986.
Minimum Biweekly Starting Salary: \$512.32

TECHNICIAN, GR18 (T262)
Food Science
Conduct routine chemical analyses on milk and dairy products.
Requirements: Bachelor's degree in dairy technology with food analysis or food science. Familiarity with quality control testing for protein (Kjeldahl), fat (Babcock, Mojonnier) preferred. Apply by July 18, 1986.
Minimum Biweekly Starting Salary: \$431.43

TECHNICIAN, GR21 (T186) repost
Diagnostic Laboratory
Perform a variety of serological tests, tissue culture, fluorescent antibody and viral isolation procedures. Prepare clinical specimens, media, buffers and other reagents.
Requirements: Bachelor's degree in microbiology or related field. Two years related work experience. Apply by July 18, 1986
Minimum Biweekly Starting Salary: \$512.32

Part-time

RESEARCH SUPPORT SPECIALIST I (PT271)
Section of Ecology and Systematics
Develop computer models of the controls of element-cycle interaction in aquatic ecosystems. Conduct literature surveys on biogeochemical cycles. Estimate nutrient inputs to the Hudson River. Part-time, temporary position for one year (end of grant) 20 hours per week.
Requirements: Bachelor's degree in environmental science or related field. Significant experience modeling biogeochemical cycles and conducting literature surveys of nutrient loadings or land-use patterns; familiarity with IBM compatible microcomputers. Please send cover letter and resume to Cynthia Smithbower by July 18, 1986.

SECRETARY, GR18 (C272)
Theory Center
Provide part-time secretarial support to the Deputy Director and the Director of the Theory Center. Answer and screen calls; coordinate travel arrangements; arrange appointments; type general correspondence and reports utilizing an IBM PC; some technical typing. Part-time, regular; Monday -Friday, 8-12:00 or 12:30-4:30.
Requirements: High school diploma or equivalent. Secretarial school desirable. Medium typing. Minimum 2 to 3 years related office experience. Familiarity with Word-Perfect or comparable word processing experience. Strong organizational and interpersonal skills. Exposure to UNIX desirable.
Minimum Biweekly Starting Salary: \$431.43.

RESEARCH SUPPORT SPECIALIST I (PT2610)
Section of Ecology and Systematics

\$25.8-Million Hotel School Job Gets Trustee Approval

The proposed renovation and expansion of the School of Hotel Administration received the final "go ahead" June 26 from the Executive Committee of the university's Board of Trustees.

At its meeting in New York City, the committee approved a \$25.85 million budget for the two-year project scheduled to enter its construction phase by September. About \$16 million in gifts has been raised to date.

The project involves work on all of Statler Hall, including new classrooms, laboratories, and offices, replacement and expansion of the Statler Inn, and construction of a new conference facility. The area now occupied by the north wing will be expanded toward Uris Hall and East Avenue, and the number of inn rooms will be increased from 50 to as many as 130. The work is expected to be completed by June 1988.

Major renovations to the school areas of Statler Hall will involve the addition of new space on portions of the first, second, and third levels of the structure facing East Avenue. That portion of the project is scheduled to start in June 1987, and will be completed in July 1988 without interrupting the teaching function of the school during the 1987-88 academic year.

Construction will result in the displacement of more than 100 employees at the hotel school over the two years beginning in mid-August. University Personnel Services, working in conjunction with officials of the hotel school, is in the process of relocating the displaced workers in other positions on campus.

Lee Snyder, director of university personnel services, said only about one-third of the affected employees are yet to be relocated, as of July 9.

Trustees Amend Public Order Rules

The Executive Committee of the Board of Trustees has clarified the definition of "student" in the university's Regulations for the Maintenance of Public Order under Article III of the Campus Code of Conduct.

The new definition adopted June 26 excludes extramural students, conference attendees, and high school students attending summer programs from prosecution for violations of the regulations, commonly known as RMPO, through the campus judicial system.

These individuals, however, remain subject to the standards of conduct contained in the regulations and are subject to removal from the university, according to Walter J. Relihan Jr., university counsel. Like all other members of the university community, he

said, they also remain subject to the laws of the State of New York.

The new definition is consistent with the student definition used by the University Registrar and has been reviewed by the University Assembly, which had no objection to the change.

The revised section reads:

"While these regulations establish standards of conduct applicable to all persons, the term student as used herein shall be interpreted to mean any person currently registered with the university as a degree candidate in any of Cornell's graduate or undergraduate divisions, a special student in the undergraduate divisions, or a non-degree candidate in the graduate school."

Big Red Musicians March in Liberty Band

Cornell was represented in last weekend's festivities commemorating the centennial anniversary of the Statue of Liberty. Five members of the Cornell "Big Red" Marching Band were among the performers in the celebration.

The five members participating in the celebration were brother and sister Bruce and Sally Hawkins of Naples, N.Y.; Scott Hunter '86 (trumpet) of Bohemia, N.Y.; Jonathan Hyde '88 (trombone) of Melville, N.Y.; and John Calhoun '86 (trumpet) of Flossmoor, Ill. Bruce Hawkins, '87, plays baritone horn; Sally Hawkins, '89, plays alto sax.

Reproductive Systems

Some 900 scientists specializing in reproductive systems in animals and humans will gather at Cornell July 14-17 for the annual meeting of the Society for the Study of Reproduction.

Participants will include reproductive biologists, animal scientists, veterinarians, and physicians from many parts of the world, including Asia, Europe, and South America. This will be the first time the society has had its annual conference at Cornell.

Since its inception in 1967, three Cornell scientists have served as presidents of the society. They are Robert H. Foote, the Jacob Gould Schurman Professor of Animal Physiology; William Hansel, the Liberty Hyde Bailey Professor of Animal Physiology, and Noland L. VanDemark, professor emeritus

Conference Subject

of animal science and former director of research, all in the College of Agriculture and Life Sciences.

Nearly 350 research papers dealing with all aspects of animal and human reproductive systems and related subjects will be presented, according to Hansel, chairman of the program committee. The local arrangements committee is headed by Cornell animal scientist W. Ronald Butler.

The conference also will feature symposia on cellular and molecular mechanisms of sperm differentiation and function, and neuroendocrinology examining neurotransmitters and sexual behavior and secretion of various hormones from the brain and other organs, among other topics.

Participate in the design and execution of biogeochemical and ecological research studies involving field sampling and experimentation and laboratory chemical analyses. Part-time, regular; 20 hours per week; irregular hours including nights and weekends.

Requirements: Bachelor's degree in environmental science or related field. Significant laboratory and field experience in biogeochemistry; experience with ion chromatography and gas chromatography; experience with nutrient analyses and 14C productivity measurements in natural waters; experience with working on boats. Must be able to swim. Please send cover letter and resume to Cynthia Smithbower by July 18, 1986.

PROGRAM AIDE, GR18 (C2616)
Human Development Family Studies
Will be a member of the teaching team which provides a daily, three-hour program for 21 three- and four-, and five-year-olds in the department's demonstration school. Plan and supervise daily activities; lead large and small groups; participate in parent conferences and staff activities. Part-time, regular until June 1987. Monday - Friday, 11-5:00 (9 months).
Requirements: Bachelor's degree in child development or early childhood education or related fields. Experience in classroom teaching desirable. Please send cover letter and resume or call Esther L. Smith in confidence by July 14, 1986.
Minimum Biweekly Starting Salary: \$431.43

Temporary

TEMPORARY OPPORTUNITIES: Individuals qualified for temporary work and interested in clerical/secretarial: if you have experience or skills, and are interested in learning more about these opportunities, please call Laurie Worsell at 255-5226.

NIGHT SUPERVISOR, T2 (C273)
A.R. Mann Library
Handle building security. Work at Circulation Desk; supervise all circulation or reserve night students; coordinate closing procedures and secure building at closing. Part-time, temporary until May 29, 1987. Friday 5-12 midnight; Sunday 5-12 midnight; additional 5 hours during daytime to be arranged.
Requirements: Associate's degree or equivalent. Organizational, supervisory, interpersonal and communication skills. Library experience desirable. If interested please contact Michele Draiss at 255-9560.
Minimum Biweekly Starting Salary: \$5/hour

TEMPORARY TECHNICIAN, (T245) (Repost)
Enotomology
Assist in sampling program for insects in field corn. Maintenance of laboratory colony of corn rootworms. Some computer data entry and microscope work. Approximately 60% field work, 40% lab work. Part-time, temporary. Monday - Friday, 8:00-2:00.
Requirements: Bachelor's degree desired, coursework in biological sciences. Ability to work independently. Please send cover letter and resume to Cynthia Smithbower by July 18, 1986.
Minimum Biweekly Starting Salary: \$4.00/hour

TEMPORARY COMPUTER OPERATOR, (T108)
School of Hotel Administration
Provide technical assistance for hardware and software on the WANG computer to approximately 45 users. Perform routine mainframe computer operations and system maintenance such as back-ups and reports. Respond to phone inquiries on technical support and routine activities. Monday - Friday 9:00 a.m. - 3:00 p.m. (20-25 hours per week) until December 31, 1986.
Requirements: Knowledge of routine maintenance for computers, including troubleshooting, preventive maintenance and set-up. Knowledge of word processing and concepts is desirable. Submit cover letter and resume to Cynthia Smithbower by July 18, 1986.
Minimum Starting Salary: \$6.00 per hour.

Brief Reports

Telecommunications To Offer Instruction

The Department of Telecommunications will offer three instructional meetings this month for all System 85 telephone users. The sessions will be held at Uris Auditorium at 10 a.m. July 21, and at 10 a.m. and 2 p.m. July 22.

Attendees are invited to ask any questions they have about System 85 features, system design, data transmission, and billing. Cornell employees who did not receive instruction in the use of their System 85 telephone and its features are encouraged to attend one of these meetings.

In addition, telecom representatives are available to attend departmental meetings to answer questions about the system design in specific areas. Arrangements for this service may be made by calling the Telecommunications office at 255-3333.

WSH Program Board Adds Dessert Theatre

Dessert Theatre will be added to the summer offerings of the Willard Straight Hall Program Board, starting tonight.

The New York State Theatre Caravan will be featured at 8 p.m. today, and Syracuse's Paul Robeson Performing Arts Company at 8 p.m. Thursday, July 24, both in the Memorial Room.

Several desserts and coffee will be available for purchase. The performances are free.

The summer concert series, held on the WSH terrace from 7 to 9 p.m., will feature Ichabod Stowe July 11, Group Effort July 17, Fe Nunn & Stephanie Bibbie Aug. 1, and Ray Fogg Aug. 8. The concerts are free.

Spiders

Continued from Page 1

er quality mate.

Normally, no pheromone scent is applied to webs. The production of the chemical appears to be a special adaptation to low-density populations, according to the Cornell biologist. If no male responds to her normal charms within seven to 10 days after the female is ready to mate, something in her system tells her to add strands of pheromone-scented silk to the web.

Only virgin females have been observed to produce scented silk. "It is the last resort of a 10-month-old female who has only a month in her one-year life to breed," Watson says.

The sex attractant almost always lures at least one male. However, the first male on the scene wants the virgin female for himself because of a quirk in the facts of this spider's life: Females normally mate with — and accumulate sperm from — several males. She retains the sperm for several weeks until her eggs are ready, even though it is sperm from the first male that usually fertilize the majority of the eggs.

As sociobiologist Watson puts it, "This is the male spider's big chance for reproductive success."

While the female stands aside and watches helplessly, the male cuts the pheromone-bearing dome from its supporting superstructure of silk, and systematically bundles it into a ball. The process, which takes about 20 minutes, prevents further evaporation of the powerful scent. The male thereby lowers the risk of losing his valuable mating partner to a stronger rival.

Sometimes another male arrives, and a fight ensues, the Cornell biologist discovered. The winner continues bundling the web.

Then the pair mate on the remaining strands of superstructure. That night, the female rebuilds the dome.

Sierra dome spiders live in a male-dominated society that would provoke the ire of human feminists, Watson notes. Mature males do not build webs and are nomadic during mating season; they live off food stolen from the webs of various females. Housekeeping is the role of the female; she clears debris from the web, and repairs and enlarges it each night.

"The female would prefer to have several males fight it out for the privilege of being the first to mate, because this could result in a stronger sire for her offspring," Watson says.

"Females apparently gain by producing the pheromone, because mates are attracted. However, the female also incurs a cost, since any male who is attracted wants to avoid conflict with rivals and, therefore, destroys the female's web to mute her attractant signal."

"Both the female and the male are trying to maximize reproduction," he reflects. "Sometimes their efforts are not in sync."

Local Homes Sought For Japanese Scholars

As part of Cornell's Special English for Japanese Scholars Program, the Japanese Section at Cornell is looking for local families willing to be host to one of these scholars in their homes for a weekend, in order to acquaint them with American home life. This proposed home stay will be for the weekend of July 26-27.

No special arrangements need be made: the scholars are simply interested in participating in American home life and practicing their English. Anyone interested should call Professor Eleanor Jorden or Emily Lange at 255-0736 or 255-6457 weekdays between 8 a.m. and 5 p.m.

Teamsters Have Exhibit Related to ILR Course

The International Brotherhood of Teamsters is exhibiting a display representing the union's past, present and future at the School of Industrial and Labor Relations through July 25.

The exhibit will be housed at two locations on campus: A history portion is on display in the Silent Study Room of the Martin P. Catherwood Library, 229 Ives Hall; and a portion describing the present makeup of the

Teamsters in Room 120 of the ILR Conference Center building.

Both exhibits complement a graduate course this summer for 125 primary and secondary school teachers from across the United States and Canada by providing those teachers with a better understanding of the labor movement.

For additional information contact Ann Herson, Labor Relations Summer School Program 1986, ILR Extension Division, 255-3286.

Conference Will Focus On Swine Production

Swine producers in New York and other states in the Northeast who are interested in remodeling or expanding their facilities expected to attend a "Swine Housing and Facilities Conference," July 18-19, at the Ontario County Cooperative Extension Center in Canandaigua, N.Y.

Sponsored by Cornell Cooperative Extension and the College of Agriculture and Life Sciences at Cornell, the conference is part of the Cornell effort to boost New York's swine industry, valued at \$25 million annually.

"Anyone interested in swine production is also invited," says the organizer of the conference, Tro. V. Bui, a swine specialist in Cornell's Department of Animal Science. "One of the purposes of this special conference is to promote the development of alternative uses for farm resources becoming available in New York and neighboring states."

SAGE CHAPEL

Schedule of Services For Rest of Summer

Sage Chapel summer session services are held at 11 a.m. Sunday mornings now through Aug. 10. Sage is a non-sectarian chapel which fosters dialogue and exploration with and among the major faith traditions. This summer a special series of sermons will feature meditations on the stained glass windows in the chancel donated in memory of his wife Susane Linn by Henry W. Sage.

July 13, "The Prodigal Son," Robert L. Johnson, Jr., director, Cornell United Religious Work.

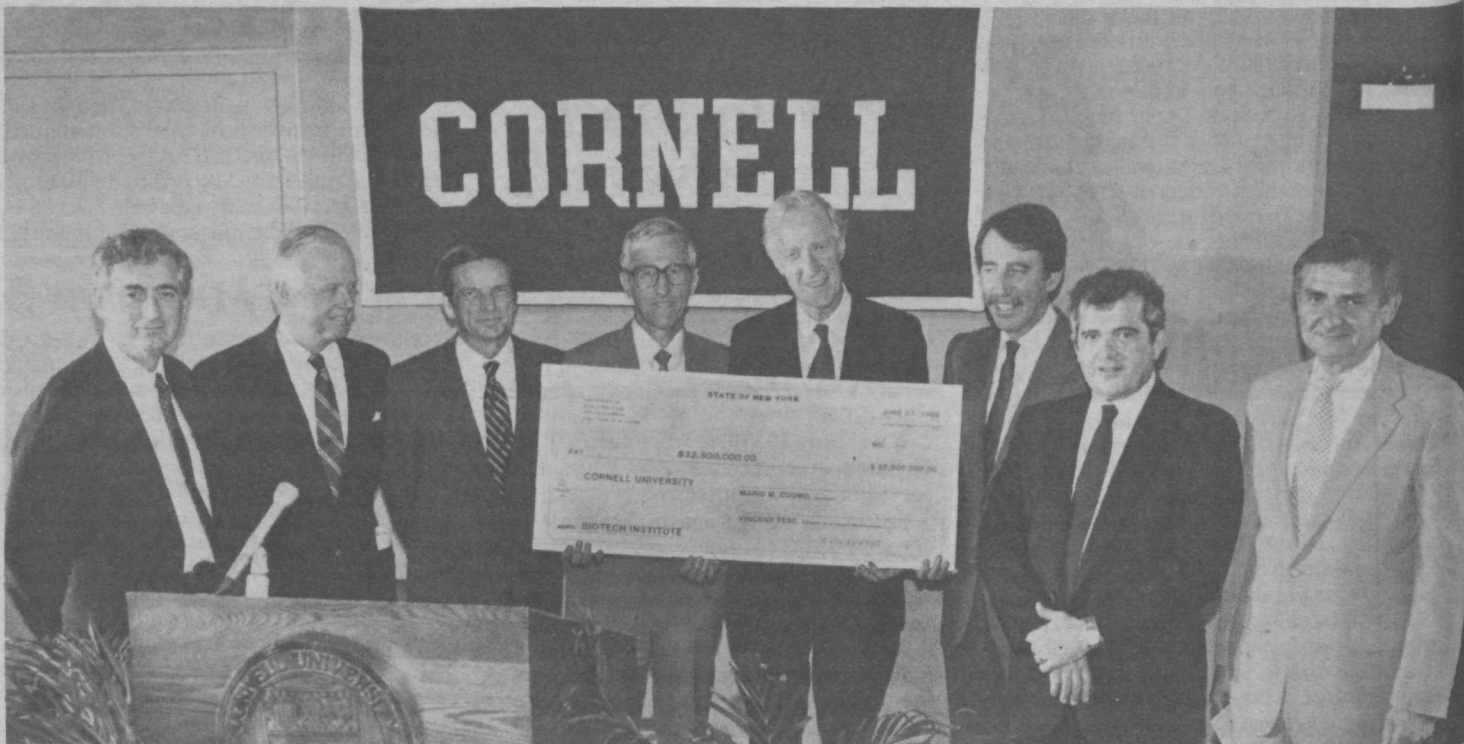
July 20, "A Lost Piece of Silver," Gail V. Riina, assistant director, Cornell United Religious Work.

July 27, "The Lost Sheep," Kenneth A. McClane, associate professor, Department of English.

Aug. 3, "Veritas," William Trochim, assistant professor, Department of Human Services Studies.

Aug. 10, "The Pharisee and Publican," Laurence Edwards, Jewish chaplain, Cornell United Religious Work.

Music is offered by the Sage Chapel Summer Session Choir directed by Byron Adams, assistant professor of music, and Richard Neal, organist. Students and others are welcome without audition to join the choir for its 7 p.m. rehearsal each Thursday at the Chapel.



A big (facsimile) check for the biggest research facility at Cornell is presented June 27 at groundbreaking ceremonies for the new biotechnology center. University, state and corporate officials participating in the ceremony were, from left, Robert Barker, provost; Amory Houghton, Jr., chairman of Corning Glass Works executive committee; Philip Smith, president and CEO of General Foods Corp.; Gordon G. Hammes, director of the Biotechnology Program; Cornell President Frank Rhodes; Vincent Tese, chairman and CEO of the New York State Urban Development Corp.; Leo J. Thomas, senior vice president, Eastman Kodak Co.; and Leonard M. Baker, vice president, Union Carbide Corp. State support accounts for about two-thirds of the \$32.5 million project.

Tuna Exports

Continued from Page 1

two of the 12 tuna for sale because the quality of the meat had deteriorated. The unsold tuna were worthless and were discarded.

"I thought it was a waste of otherwise perfectly good food and a great loss of income to hardworking fishermen," Smith recalled.

Smith decided to do something about the problem. He launched a crash program to educate fishermen about what should be done to keep their tuna in tip-top condition.

The trouble is the tuna lacks the mechanism to cool its body temperature, which can be as much as 57 degrees Fahrenheit higher than the water temperature. The high body temperature leads to proliferation of bacteria that convert a muscle chemical called histidine to histamine, a toxic compound that poisons the meat, Smith explained.

Histamine can cause illness in allergic people. When tuna, among other fish, are handled improperly, histamine could build up in toxic concentrations within one to two hours, Smith explains. Human consumption of such contaminated fish may result in a food poisoning that produces a variety of symptoms, including headache, nausea, cramps, diarrhea, vomiting, thirst, swelling of the lips, and burning sensation in the throat.

"Histamine-contaminated fish often has a peppery taste," Smith says. "This type of food poisoning occurs to a limited extent in coastal states of the United States and to a much greater degree in foreign countries."

"Tuna make a great sportfish, though," he notes. "They put up a tremendous fight as fishermen try to reel them in. In the process, the tuna's circulatory system elevates body temperatures sharply, resulting in

spoilage of flesh."

The key, he stresses, is to reduce the temperature as quickly as possible after fishermen catch tuna at sea.

Based on information available through scientific literature and his own experiments, Smith put together a booklet describing several key steps required to bring down the body temperature of the fish.

His recommendations, as summarized in Tuna Handling Tips, include:

- boarding the catch with rubber gloves after allowing tuna to cool in the water,
- gilling and gutting the fish to rid them of internal organs that may contaminate the belly meat,

— chilling the fish to 45 degrees Fahrenheit or lower by submerging it in an ice-seawater slurry, and

— packing stomach cavities with ice and covering the fish with plastic, and then icing over the plastic.

"Thousands of Long Island tuna fishermen are now able to do a better job of handling tuna," Smith said. "The result is a spectacular increase in tuna sales in the last few years."

Predicting the prospects for more tuna exports to Japan, Smith said, "I wouldn't say the sky is the limit, but the Long Island tuna business could easily double within the next few years."

Food Science

Continued from Page 1

"The value added by processing and packaging for retail sales represents a major technological activity in the state," he points out. "Overall, the retail value of food handled in New York is about \$22 billion annually, making food manufacturing and ancillary industries major contributors to the economic well-being of the state."

The new laboratory, which will provide 30,000 square feet of floor space, represents the first major expansion in more than 60 years. Designed to meet the highest standards of sanitation and the state-of-the-art manufacturing practices necessary for the state's dairy and food industries, the laboratory will be used for teaching, research and development, and Cooperative Extension activities, Ledford says.

The laboratory will have modern equip-

ment and machinery for heating, freezing, chilling, canning, dehydration, extrusion, homogenization, separation, blending, fermentation, concentration, distillation, and packaging as done in the industry.

The main food processing laboratory will have 12,000 square feet of floor space to house new equipment and provide work space. In addition, the facility will have specialized supporting facilities, such as climatic-controlled, walk-in research and storage rooms equipped with refrigerated sections, freezers, and temperature, gas, and humidity control rooms. Other facilities will include a wet laboratory room, a refrigerated storage and work room, a freezer storage room, a dry storage room, and a machine shop.

"Our new laboratory will play a major role in developing the high technology and basic information required by our food industry," Ledford states.

NEWS
FROM THE
OFFICE
OF EQUAL
OPPORTUNITY

CORNELL EQUAL TIMES



Thinking about Changing Jobs?

We in the Office of Equal Opportunity are interested in, and committed to, the progress of current employees who are women, minority members, disabled individuals, or veterans. We encourage and support progress through job mobility. We can offer insights on how to prepare for job mobility and assistance with the process.

While there are many reasons for wanting to change jobs, the primary one is usually to improve one's career situation. If you have been thinking about changing jobs but are unsure how to do so, read on.

If you have thought about the process at all, you are off to a good start. Success in obtaining a job and afterwards being satisfied with it can be traced, in part, to thinking and answering several questions: Who am I? What do I want to do? When and why do I want to change jobs? Where do I want to work? Where and from whom may I receive assistance? That thinking is necessary, but it is not sufficient. You must *act*—get up and get into gear.

Let's examine more closely several areas that should be thought through and acted on.

- Do you know what you want? The type of job? The level of responsibility?
- Can you describe, orally and in writing, the job or career you are seeking?
- Do you know of a position that matches your description?
- Do you know of one or more departments where someone holds that position?
- What skills, credentials, and abilities are required?

- What skills, credentials, and abilities do you have?
- Can you demonstrate and communicate those skills? Can you give examples?
- Do you need more training? How and when will you acquire that training?
- Have you researched the department of interest to find out as much as possible about how it functions and how your desired position fits into its overall charge?
- Have you determined who makes personnel decisions and how the department fits into the whole scheme of the university?

Beyond those basics, there are other considerations that will serve you well in your preparation for changing jobs:

- If you are a woman, a minority member, a disabled person, or a veteran, contact the Office of Equal Opportunity (255-3976). Staff members can provide practice interviewing sessions, assistance in writing résumés and cover letters, and job search strategies.
- Contact University Personnel Services (255-5226) for assistance.
- Go on interviews to gain information and experience. Initiate exploratory interviews with people who are holding or have held the position you are interested in, or with their supervisors.
- Increase your visibility—try networking. Consider attending brown-bag workshops, for example, Women in the Work World (check the employee calendar in *Network-*

ing for announcements); employee training and development workshops; or courses offered at Cornell, Ithaca College, Tompkins Cortland Community College, or BOCES. Consider joining professional organizations, employee organizations, or community service groups. Consider doing special projects for other organizations or departments.

- Check reference materials on writing effective résumés and cover letters. Highlight

transferable, leadership, and interpersonal skills; ability to follow through; responsible work habits; accomplishments; initiative; and professionalism.

While you are thinking about changing jobs, keep the Office of Equal Opportunity in mind. We can help you improve your job or career situation.

Attention Current and Prospective Minority Employees!

The Office of Equal Opportunity has a program that is of direct interest to you. It's the Job Support Program!

The program will link individuals seeking employment or mobility opportunities in specific areas with outstanding employees within the Cornell community who are willing to talk about their work and its requirements. It provides you with

- an affirmative and supportive channel through which you may assert yourself and take responsibility for your career development
- personal contacts with those who have diverse experiences
- access to information about the desired job; that is, responsibilities, skills required, obstacles to be faced, and trade-offs involved

- an opportunity to learn about other offices and to obtain a clearer picture of where and how the desired job fits into the university's organizational structure

Contact Mary Ward in the Office of Equal Opportunity (255-3976) to participate or receive more information.



A Message from the President

The Office of Equal Opportunity regards sexual harassment as intolerable behavior. The office wants all members of the community to understand what sexual harassment is and what actions can be taken in response to problems. The following statement by President Rhodes makes the university's position clear.

A university community cannot flourish without an understood and accepted code of conduct that ensures a basic civility and respect for the dignity of every person. We must make it unmistakably clear to every member of the faculty, to every employee, and to every student that sexual harassment will not be tolerated.

The basic integrity of a university community is threatened whenever a teacher intimidates a junior colleague or a student by making unwelcome sexual advances or by requesting sexual favors as a condition of advancement. Harassment by university employees, especially supervisors or others in authority, is also unacceptable. Sexual harassment among peers is just as destructive.

We cannot ignore the problem or pretend that such conduct does not happen at Cornell. I call upon every academic and administrative official of the university to give the subject the serious attention it requires. Students and faculty members can report incidents confidentially to an appropriate

university office, which may be the Office of the University Ombudsman, the Office of Equal Opportunity, or an appropriate adviser, department chairperson, or dean. Nonacademic employees are directed to the Office of the University Ombudsman, the Office of Equal Opportunity, or University Personnel Services. All concerns will be treated with confidentiality, and those reporting the incident will not suffer retaliation by any university official for having done so.

As part of Cornell's efforts to improve its program of affirmative action and equal opportunity, I have directed that the Office of Equal Opportunity assume a special monitoring role on the issue of sexual harassment.

I shall need your help in bringing the university's position in this matter to the attention of the widest possible audience. Moreover, I urge you to take appropriate action when cases of harassment come to your attention. There must be no mistake about our determination to do everything possible to eradicate sexual harassment from our campus.

Frank Rhodes
President of the University

Prevention Update

The Office of Equal Opportunity is collecting information on resources available from the Advisory Committee on the Status of Women, the Dean of Students Office, EARS, Employee Relations, Gannett Health Center, the Human Relations Training Program, the Office of the Judicial Administrator, the Office of the University Ombudsman, the Cornell Women's Center, and others in order to produce a flier describing where individuals can go for advice, to report incidents of harassment, to file formal complaints, and to request workshops on sexism, harassment prevention, discrimination, health, and physical safety. The information will appear in the fall issue of *Cornell Equal Times* and will also be widely publicized through the above offices and groups, in residence halls, and at orientations. Anyone wanting more information or to list a continuing program, workshop, or resource should contact the Office of Equal Opportunity (255-3976).



Saying No Is Enough

According to the guidelines of the Equal Employment Opportunity Commission, sexual harassment is an act of discrimination on the basis of sex within the meaning of Title VII of the Civil Rights Act, and employers may be held liable for such misconduct. *Sexual harassment* is defined as: "Unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct of a sexual nature when (1) submission to such conduct is made either explicitly or implicitly a term or condition of an individual's employment; (2) submission to or rejection of such conduct by an individual is used as the basis for employment decisions affecting such individual; or (3) such conduct has the purpose or effect of substantially interfering with an individual's work performance or creating an intimidating, hostile, or offensive working environment."

The Office of Equal Opportunity

In addition to monitoring the implementation of Cornell's Affirmative Action Plan and recommending strategies to increase the numbers of women and members of minorities and other protected groups in all levels of the university community, the Office of Equal Opportunity provides the following services:

- Develops recruitment strategies for units or departments seeking to identify qualified female, minority, and disabled applicants.
- Provides job-search assistance, informal counseling, and practice interviewing sessions for minority and female applicants.
- Provides services and assistance—including readers, note takers, recorded books, and help with housing and parking needs—to disabled students.
- Encourages the employment of older persons on the basis of ability rather than age.

- Focuses on issues of concern to the Cornell community: dual-career couples, upward mobility, networking, and mentors.
- Provides information on affirmative action, equity, discrimination issues, and protected-class status.
- Monitors legislative actions and interpretations affecting protected classes.
- Provides workshops, resources, and training aimed at preventing sexual harassment.
- Assists in resolving allegations of discrimination and grievances, including those involving sexual harassment.

The Office of Equal Opportunity is available to all members of the Cornell community for consultation on issues involving equality of opportunity, affirmative action, and discrimination. The mailing address and telephone number are 234 Day Hall, Ithaca, New York 14853-2801, 607/255-3976. Office hours

are 8:30 a.m. to 4:30 p.m. Monday through Friday, and by appointment.

The staff consists of:

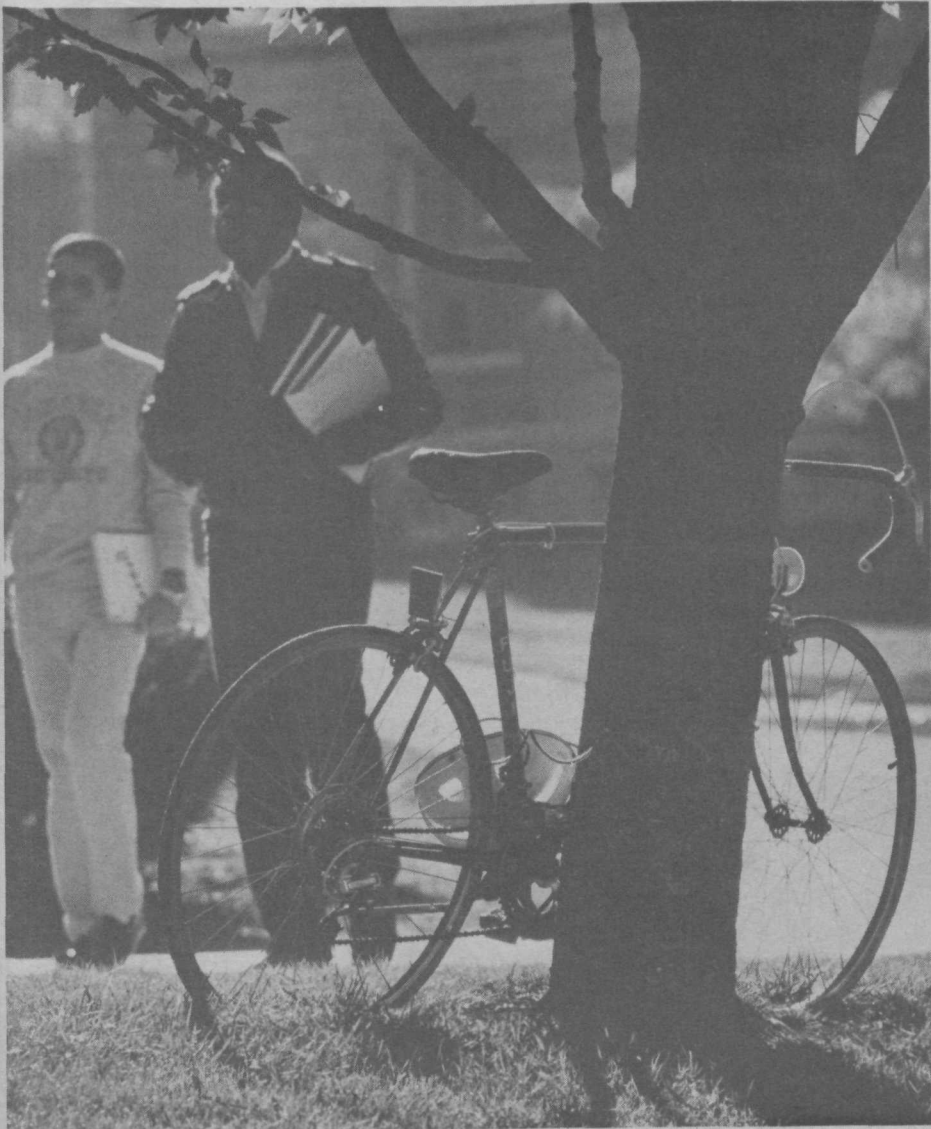
- Don Johnson, director
- Lillie McLaughlin, assistant director
- Kathleen Donovan, coordinator of services for the disabled and Vietnam-era veterans
- Natalie M. Kazmierski, coordinator of women's services
- Mary A. Ward, coordinator of minority staff services
- Pamela A. Denmark, administrative aide

CORNELL EQUAL TIMES

Cornell Equal Times is a quarterly publication of the Office of Equal Opportunity. It is intended to reflect and support the university community's diversity and to provide a forum for perspectives, insights, and concerns that affect all Cornell community members. The office seeks to foster understanding of affirmative action principles and efforts in all aspects of Cornell University education and employment. Please send comments or suggestions for articles to Natalie M. Kazmierski, Editor, *Cornell Equal Times*, Office of Equal Opportunity, Cornell University, 234 Day Hall, Ithaca, New York 14853-2801.

Cornell University is an equal opportunity, affirmative action educator and employer.

Office of University Publications
686 1J



Self-Identification of Disabled Employees

Disabled Cornell employees must identify themselves with the Office of Equal Opportunity in order to be protected by the Rehabilitation Act of 1973. Disabled employees are requested to complete a self-identification form. The forms help the Office of Equal Opportunity monitor the needs of disabled employees and evaluate how those needs are being met. The information received will be kept confidential and will not affect your job at Cornell.

Section 503 of the Rehabilitation Act of 1973 defines a *handicapped person* as "a person who: has a physical or mental impairment which substantially limits one or more major life activity; has a record of such an impairment; or is regarded as having such an impairment."

As an employer Cornell must provide reasonable accommodations to the employee's work environment and periodically provide

employees with an opportunity to identify themselves. Cornell will provide equal opportunities to qualified disabled employees for promotions, transfers, and training and will not discriminate against disabled employees in such matters.

A supervisor or a hiring department cannot be expected to know what kind of accommodations are appropriate for each disabled employee. Therefore disabled employees must make their needs for accommodation known.

Disabled people and their supervisors are urged to call the Office of Equal Opportunity (255-5298 or 255-3976) if they have any questions about self-identification.

Please fill out the form and return it via campus mail to the Coordinator for the Disabled, Office of Equal Opportunity, 234 Day Hall.

Applicant Flow Card Procedures

Applicant flow cards are used to determine the racial or ethnic origin, the sex, the veteran status, and the disability status of people who have applied, or been referred, for an available position at Cornell University. The information is compared with the availability information for that particular job. The cards also indicate how the applicant found out about the vacancy.

To use the applicant flow cards for academic positions, the hiring department should call the Office of Equal Opportunity (OEO) to request cards. The department should fill in the "Applied For" or the "Job #" section, or both, and mail a card to each applicant. Applicants are to complete the cards and return them to OEO, where they are tallied to determine the affirmative action status of the applicants. That information is returned to the department, to be included on the academic affirmative action statement.

For nonacademic exempt positions University Personnel Services includes ten or fif-

teen cards in the hiring package that is sent to the hiring department. If the department needs more cards, they can be obtained from OEO. Again, the hiring department should send a card to every applicant with the "Applied For" or "Job #" section, or both, completed. After an employee is selected, the department should contact OEO to receive a summary of the applicant's status, to be included on the appointment confirmation search and summary sheet. The applicant flow card is not used for nonexempt positions.

The applicant flow information helps the university check its progress in affirmative action, equal opportunity programs and provides information necessary to meet mandated reporting requirements. The information also tells us which advertisements and announcements of the vacancy are most successful in identifying candidates for job openings. We urge you to use the applicant flow cards to help us monitor our progress.



Cornell University Self-Identification Form

The following information will be kept confidential.

Date: _____

Name: _____
last first middle initial

Address: _____
number and street

city state zip

Telephone: () _____

Date of employment: _____ Social security number: _____

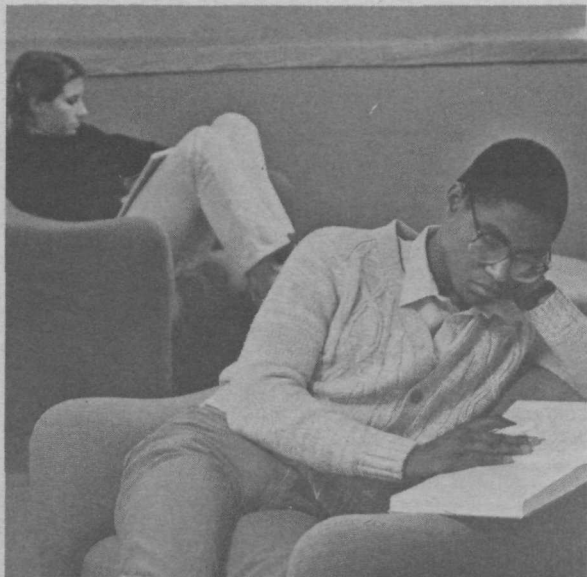
Department: _____ Job title: _____

How long have you been at your current position? _____

What is your disability? _____

If you need special accommodations, please explain:

Please return this form to:
Coordinator for Disabled Services
Office of Equal Opportunity, 234 Day Hall



Language and Disability

The way people are described affects the way they are perceived. Rehabilitation has its own changing terminology. We are concerned with making others aware of the accepted language for describing disabilities so they can use this terminology with more sensitivity. The following glossary is taken from one developed by the National Rehabilitation Association for distribution to the news media:

Able-bodied is the preferred term for describing those without disabilities. *Normal* should be used only to refer to statistical norms and averages.

Blind is correctly used to describe someone with a total loss of vision. It is not appropriate for describing someone with partial vision.

Congenital disability is the correct term for a disability that has existed since birth. The often-used term *birth defect* is considered inappropriate when applied to human beings.

Deaf is correctly used to describe people with total hearing loss. Those with partial hearing are more accurately described as having a hearing impairment.

Developmental disability is any mental or physical disability incurred before age twenty-two that is likely to continue indefinitely and results in substantial functional limitations, in a combination of life activities, that will necessitate individualized care and lifelong treatment. These disabilities include mental retardation, cerebral palsy, autism, epilepsy, sensory impairments, birth injuries, traumatic accidents, and other disease processes that began before age twenty-two.

Disability and **disabled** are preferred over *handicap* and *handicapped* in the case of a permanent physical condition that interferes with a person's ability to do something independently—walk, see, hear, talk, dress, learn, lift, work, and so on. Terms such as *crippled*, *deformed*, *victim*, *sufferer*, and *invalid* are considered demeaning.

Mentally ill and **mental disorder** are correctly used in the case of a person who has lost the social or vocational skills necessary to function independently. Demeaning terms such as *mentally deranged*, *deviant*, and *crazy* are inappropriate; terms such as *neurotic*, *psychotic*, and *schizophrenic* should be used to describe behavior, not people themselves.

Mentally retarded is the preferred term for a person who, from birth, has developed at a rate significantly below average.

Person who cannot speak is preferred over *deaf-mute* or *deaf and dumb*, which are considered not only degrading but inaccurate, since they imply that all people without speech are also deaf.

Seizure is correctly used to describe an involuntary muscular contraction symptomatic of the brain disorder epilepsy. *Convulsion* should be reserved for the more dramatic type of seizure involving contractions of the entire body. Although *fit* can be found in the dictionary, it is considered inappropriate because it connotes mental illness, willful emotional outbursts, or loss of emotional control.

Specific learning disability is a dysfunction in the ability to learn effectively when presented with an appropriate instructional environment. It is not applied to people with vision, hearing, or motor impairment, those with mental retardation or emotional disturbance, or those who are environmentally, culturally, or economically disadvantaged. The term *specific learning disability* is preferred over *learning disability* because it emphasizes that only certain areas of learning are affected.

Speech-impaired is correctly used to describe people with limited speech or different speech patterns.

