

CORNELL Chronicle

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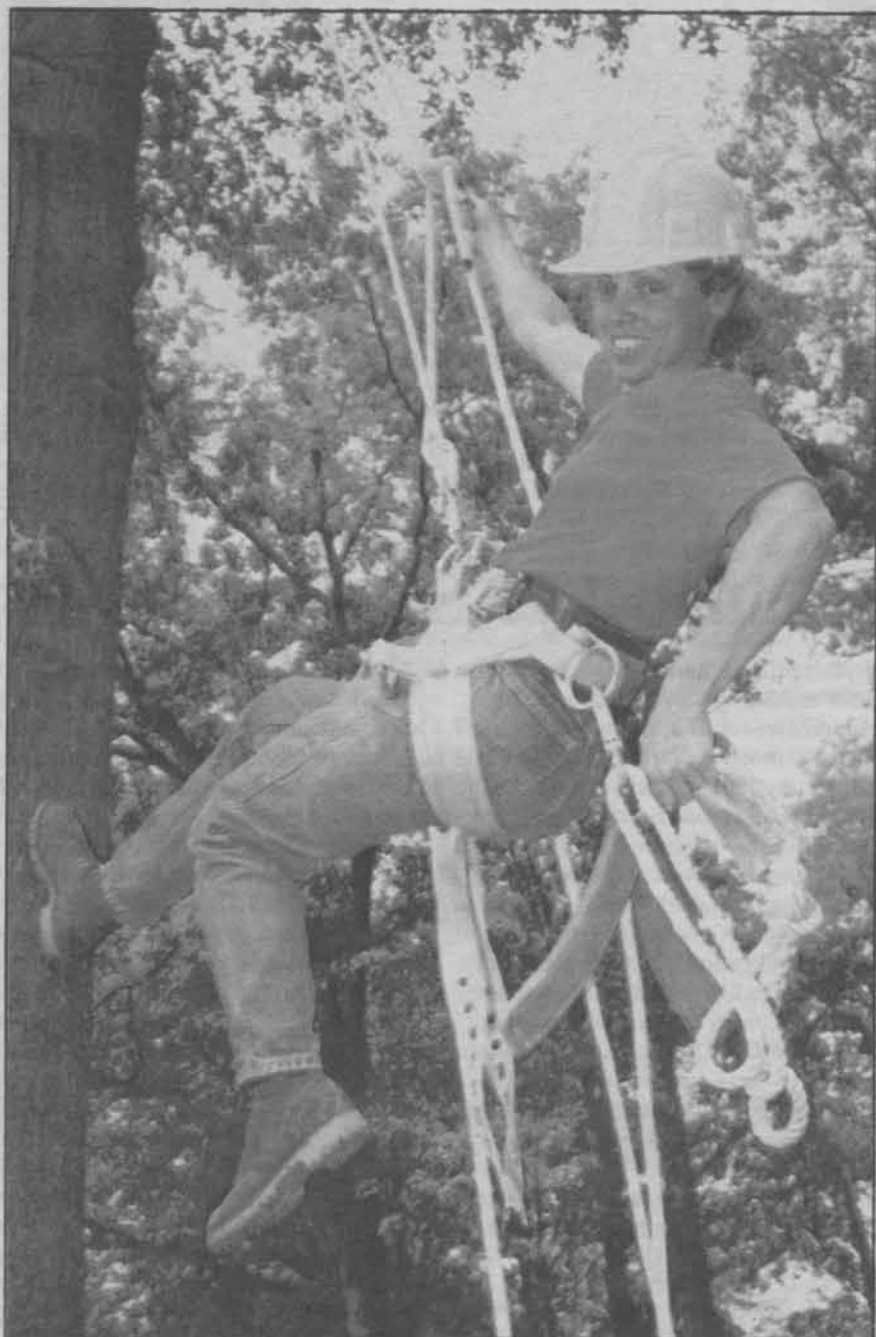
MAJOR CRASH COMING

Cornell astronomers are getting ready to study what happens when Comet Shoemaker-Levy crashes into Jupiter this month.

TEACHER OF THE YEAR

Hotel School Professor Bruce Tracey reflects on the teaching methods that won him the Ye Hosts Honorary Society's Teacher of the Year award.

Quite a tree . . .



Sharron Bennett/University Photography

Jennifer Reed of Ithaca climbs a pin oak tree in the Cornell Plantations as part of a three-week Summer Sessions course on tree climbing and arboriculture skills. The class is taught by Harry Pearsall of the Northern Adirondacks.

Provost Malden Nesheim will step down in a year

By Sam Segal

Malden C. Nesheim, who has been at Cornell since he began graduate study 38 years ago, has announced that he will retire as provost a year from now but will continue as a professor of nutritional sciences.

Last week, at a regular meeting of the Board of Trustees' Executive Committee, President Frank H.T. Rhodes informed the trustees of Nesheim's intentions.

Nesheim's retirement from the provostship will intentionally coincide with Rhodes', which the president announced in March.

"While I had initially planned to limit my service as provost to five years, I'm pleased to serve a little longer at Frank Rhodes' request," said Nesheim, adding: "But it is appropriate for me to step down when he does, so that the new president will have a major role in selecting my successor."

Rhodes concurred that Nesheim's decision was appropriate but said Cornell would miss his leadership.

"Mal Nesheim has been a superb provost," Rhodes said. "He has been deliberate but thorough, solicitous but decisive, respectful and supportive of every area of our academic life but also focused on the exigencies of managing a large institution. He has played a critical role in keeping Cornell financially stable and academically strong during a time of serious financial constraint. And he has done it with grace, intelligence and good humor. He leaves the entire university in his debt."

The provost is the university's chief operating officer. Under the president, he has responsibility both for the budget and for all academic programs — except those of the Medical College — with 12 deans and four vice presidents reporting directly to him and more than two dozen major units reporting to his subordinates.

He has helped the statutory colleges successfully sustain a series of recession-driven state budget cuts, which will be reversed



Chris Hildreth/University Photography
Malden C. Nesheim

'He has been deliberate but thorough, solicitous but decisive, respectful and supportive of every area of our academic life . . .'

— President Rhodes

with more ample funding next year. He has also worked, with Rhodes, to persuade faculty and staff that the entire university has entered a period of financial constraint, during which efficiency must be everyone's concern and academic innovations must generally be funded through substitution rather than addition of programs.

To support financial stability in the years ahead, Nesheim has formed a high-level group that looks at the budget with a five-

Continued on page 2

CU seeks alternative to cooling with CFCs

By Larry Bernard

Cornell facilities engineers, seeking a way to cool campus buildings without using ozone-damaging chlorofluorocarbons (CFCs), are studying whether to continue with conventional technology or to use cold water from the bottom of Cayuga Lake in an innovative system.

Currently, Cornell utilizes electric-powered refrigeration units called chillers that use CFCs to cool water before distributing it via pipelines to campus buildings for air-conditioning and humidity control. CFCs will not be manufactured in this country after 1995, so the chillers would have to be replaced or some other method of cooling the chilled water would have to be found.

Called lake-source cooling, the system currently under study by Cornell provides an environmentally friendly alternative because it would use one-tenth the power of conventional technology, significantly reducing both the amount of fuel burned and resultant pollutants released from regional power plants. And it would not require newly developed chemical refrigerants, which, while not affecting the ozone layer, could have other as yet unknown effects.

"This is a promising alternative that could help Cornell, the Ithaca community and the environment yet still enable us to operate a major research university," said

Henry E. Doney, Cornell director of utilities and energy management. "We are fortunate to have such a valuable and renewable natural resource in our area. As an engineering concept, it's simple and elegant, made complicated only by the scope of construction. But we need to study whether it's feasible."

The lake-water study was prompted primarily by environmental concerns that arose during discussions on how to meet new federal standards. CFCs are thought to damage the Earth's protective ozone layer, and Cornell's engineers would like a cooling system that does not employ them. Further, federal rules prohibit the manufacture of CFCs after 1995. Like automobile air-conditioners and refrigerators, Cornell's buildings will have to be cooled by alternative refrigerants if conventional chillers are utilized.

The initial idea for the system would require an intake at the bottom of Cayuga Lake about 200 feet down — about 2 miles or so north of Stewart Park — to draw water of about 40 degrees into a heat exchange facility near the shore. The lake water, warmed to about 50 degrees, would be returned directly to the lake.

Cornell's central chilled water system would be extended down the hill via a pipeline to the heat-exchange facility, where it would be cooled, then returned up the hill,

Continued on page 6

House move would slash research funds

By Sam Segal

The House of Representatives was expected to vote today on a Defense Department spending bill with drastically reduced funding for university research.

On Monday, the House Appropriations Committee approved an amendment — from defense appropriations subcommittee chairman John P. Murtha (D-Pa.) — to halve DOD campus-research funding from \$1.8 billion to \$900 million.

Cornell, in fiscal year 1993, had \$15.03 million in DOD research funding. Its total federal sponsored research was \$198.5 million, with the Department of Health and Human Services providing \$81.4 million and the National Science Foundation \$77.4 million.

The cut, from the Clinton administration's proposed defense bill for fiscal year 1995, will become a reality only if it is approved by the Senate and a House-Senate conference committee, which should convene in September.

Since Murtha's amendment said nothing about

Continued on page 7

Contract vote set for Friday

Negotiations are continuing between United Auto Workers Local 2300 and university officials on a new agreement covering 1,050 of the university's service and maintenance workers.

The UAW has set a ratification vote in Alumni Auditorium in Kennedy Hall for Friday, July 1. Employees will be briefed on details of the proposal and then vote at two meetings Friday, scheduled for 9 a.m. and 1:30 p.m.

If the UAW bargaining committee recommends the university's proposal for ratification, the university will consider the meeting and vote time as paid time for those hours that cut into an employee's regular work schedule.

The university bargaining team will review the new features of the ratified contract with university supervisors and managers once it is settled.

Nesheim continued from page 1

year perspective.

Nesheim, 62, grew up on an Illinois farm, studied animal nutrition at the University of Illinois and got his Ph.D. from Cornell in 1959, when he became an assistant professor. During three research leaves at Cambridge University, he became interested in parasitic infections, so that when he became the first director of Cornell's Division of Nutritional Sciences in 1974, his focus had already shifted from animal to human nutrition.

Nesheim has said that the only preparation for the complex management job of provost is immersion in university life:

"A person becomes a provost by first becoming an academic, by knowing what makes a university tick—teaching, advising, functioning in an academic discipline, understanding faculty and student perceptions and aspirations."

For two years before becoming provost, Nesheim also served in the new position of vice president for planning and budgeting.

Nesheim has been president of the American Institute of Nutrition, chair of the National Nutrition Consortium and a member of review panels and study sections of the National Institutes of Health and the U.S. Department of Agriculture. He has served as a member of the Food and Nutrition Board of the Institute of Medicine, where he was part of a subcommittee that prepared the 1989 edition of the U.S. Dietary Guidelines, the government's official nutritional advice covering recommended dietary allowances.

Cornell Chronicle

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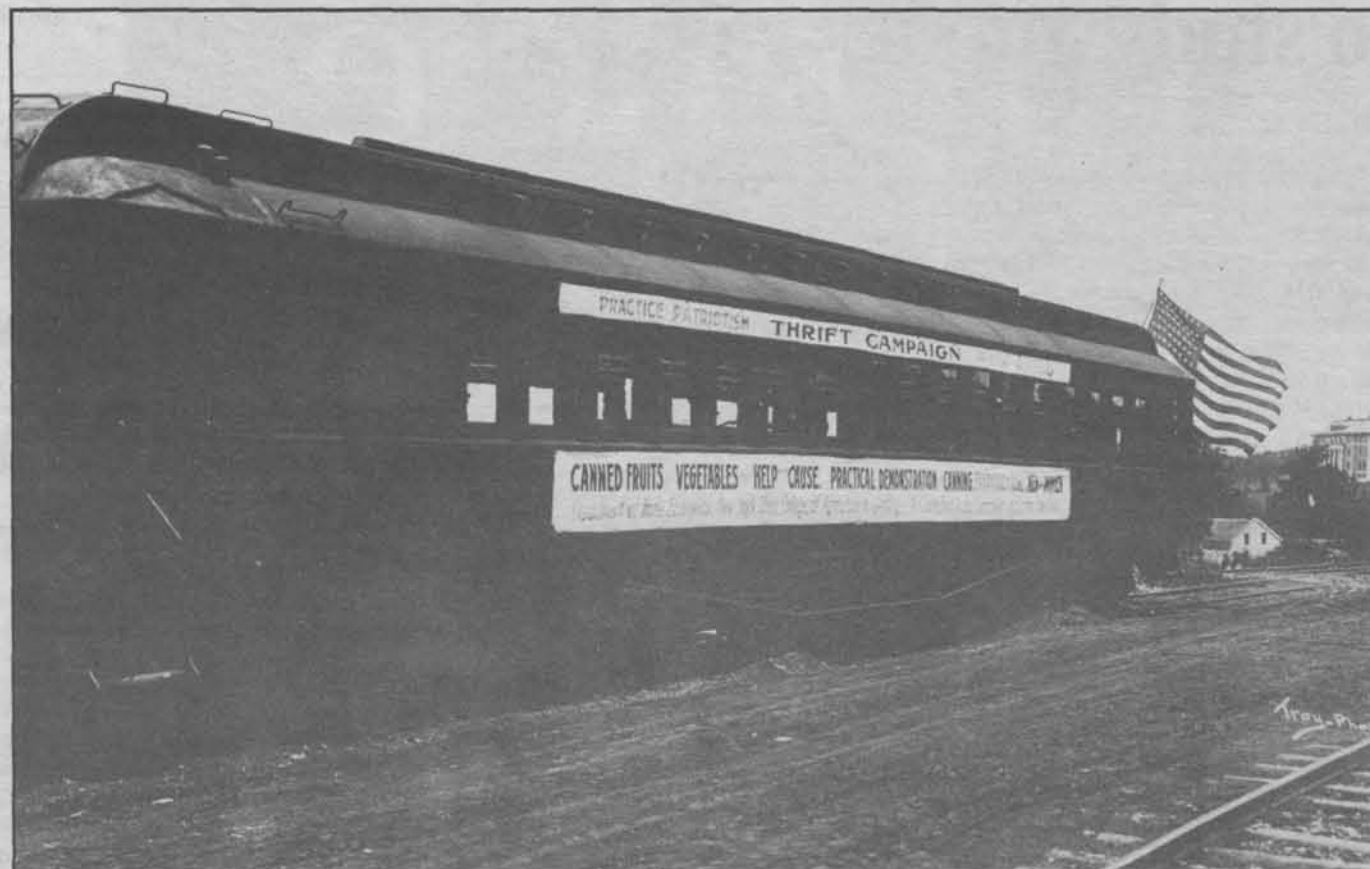
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Cornell in times past



Division of Rare and Manuscript Collections/Carl A. Kroch Library
The College of Agriculture took to the road during World War I, when food was scarce. Wing Hall is on the right in this scene from the long-gone East Ithaca yard. Home Economics, now the College of Human Ecology, was a department in the College of Agriculture then.

Cornell staffers win national CASE awards

By Barbara Yien

Director of University Photography Chris Hildreth recently was awarded the only gold medal in the "Photographer of the Year" category of the annual Circle of Excellence Awards Program, sponsored by the Council for Advancement and Support of Education (CASE).

CASE is an international organization devoted to the advancement of educational institutions and consists of more than 2,900 colleges, universities, independent elementary and secondary schools, non-profit education-related organizations and commercial firms worldwide.

Hildreth's winning entry, which consisted solely of black-and-white documentary photographs, was described by judges as demonstrating "not only fine technical execution and a consistency of artistic intent, but also . . . an extraordinary empathy for [its] subjects." It was picked from among 26 entries in the category. (A selection of

Hildreth's prize-winning photos appears on Pages 4 and 5.)

Hildreth was one of several Cornell staff members to receive awards from CASE this year. Dorothy Pasternack is director of the Office of Publications Services, which received a silver medal in the Visual Design in Print category for "Revelaciones."

Another gold medal, one of only three given among 100 entries in the Special Program Publications Packages category, was awarded to Cornell Media Services for its viewbook, "A Centennial Celebration," and calendar, "A Centennial Celebration: 100 years of creating a healthier future for animals and people," which commemorated the 100th anniversary of the College of Veterinary Medicine.

The viewbook, calendar and a six-panel exhibit-display of the college's history also won a separate State University of New York/Council for University Affairs and Development (SUNY/CUAD) "Best of Category" award for Media/College Relations.

Award recipients were Centennial Coordinator Elizabeth Fontana, the development communications coordinator at the College of Veterinary Medicine; viewbook designer Lorraine Heasley; calendar designer Barbara Drogo; display designer Wendy Kenigsberg; and exhibit specialists Les Baldwin, Roy Lonnberg and Marcus Shaffer.

Cornell Media Services also recently has won several additional awards. *Human Ecology Forum* received the 1994 "Best of Category" award in Institutional Publications from SUNY/CUAD. *The Cornell Book of Herbs and Edible Flowers* received an Aldus Magazine 1994 Design Contest award as well as a New York state award for printing quality. And "The Three Sisters: Exploring an Iroquois Garden" received the 1994 Quill and Trowel award for excellence in garden communications and the Art of Garden Communication award for overall product from the Garden Writers Association of America (GWAA). All were designed by Media Services members.

Summer students to excavate in Tuscan hills

By Rachel F. Preiser

La Piana, seven miles southwest of Siena on the flat summit of a high ridge overlooking the rolling Tuscan hills, sounds like a magnificent vacation spot.

It's the destination of 13 Cornell students, who will help to uncover the remnants of an Etruscan settlement of the fourth to late third centuries B.C. in a five-week excursion to the site.

The project, which resumed June 25, is one of Cornell's ongoing special summer programs and has been led by former Cornell Professor of Classics Jane Whitehead for the past 11 seasons.

The Cornell Summer Program in Etruscan Archeology combines field work with visits to major sites of an important pre-Roman people. The small agricultural towns of Etruria, their economic and social structure and the manner in which they reacted to Romanization are not well understood; it is believed that the settlement was destroyed in the mid-fourth century B.C. by an attack of the Gauls. La Piana is particularly significant because it is one of very few sites of its time and type to be excavated scientifically.

Previous excavations have yielded some artifacts from which a profile of the settle-

ment begins to emerge, according to Whitehead. "Prior expeditions have uncovered a long series of buildings with large rooms and one-meter-wide walls, so that the site is becoming ever more urban in character," she explained.

Bones from young animals as well as from humans also were uncovered during earlier excavations. Whitehead said the animals had been butchered and may offer a clue to the diet of the Etruscan settlement. An examination of human bones from victims of the Gallic invasion may yield insight into the attack that destroyed the settlement in the fourth century. Jewelry, pottery and coins also are among the artifacts collected and cataloged in earlier digs.

According to Whitehead, most of the students accompanying her have no prior training or experience in archaeological methods. Most will learn on location, over the course of five weeks of digging during which they will be instructed in excavation techniques, drafting, surveying and the handling of artifacts. They also will attend regularly scheduled lectures on Etruscan art and visit other important Etruscan sites.

Although the students will not be required to produce research papers based on their five weeks of work and intensive instruction, they

will compile daily logs of the excavation and a catalog of all artifacts uncovered.

The La Piana group consists primarily of undergraduates and some graduate students who are working on various aspects of Etruria. David Caccioli, a graduate student from the University of Iowa attending Cornell's summer expedition, intends to survey the outside walls of the city in an attempt to piece together the Etruscan defense system. Another graduate student will work with the human and animal bones uncovered at the site.

The group will live in the villa of Spannoccchia, 12 miles southwest of Siena. The villa is built into a massive castle dating back to the early Middle Ages and overlooks the national Forest.

It is equipped with a library, museum, laboratory and classrooms. The cost of the five-week program is \$3,305 for three credits or \$4,610 for six credits and includes tuition, housing, weekday meals, daily transportation to and from the excavation site and all equipment and materials.

Whitehead was anxious to dig in once again at La Piana. "It's an important Etruscan site because there are so few sites like it in the world. Everything that we find is new information. It's very exciting."

CU astronomers prepare to study Jupiter collision

By Larry Bernard

Cornell astronomers will go to any height to study what happens when Comet Shoemaker-Levy crashes into Jupiter in July.

In fact, one research team will be airborne at 41,000 feet over Australia, and another will be at 5,570 feet on Mount Palomar, Calif. Both teams will use unique infrared instruments to study the once-in-a-lifetime occurrence—a celestial body slamming into a planet.

SpectroCam-10, the Cornell instrument attached to the 200-inch Hale Telescope, operates in two modes. In imaging mode, it takes images of Jupiter but in infrared radiation, rather than optical radiation where human eyes are most sensitive.

In spectroscopic mode, it can obtain spectra of Jupiter to determine the unique signatures of the chemical compounds that exist there, said Philip D. Nicholson, Cornell professor of astronomy who is heading the studies at Palomar.

"These collisions are expected to produce very hot plumes. The best place to see them is in the infrared," Nicholson said.

SpectroCam-10, designed and built under direction of James R. Houck, Cornell professor of astronomy, "looks" in the infrared spectrum at the 10-micron wavelength. Infrared wavelengths are not visible to the human eye, but fall between visible and microwave wavelengths and can be used to measure the heat emitted by the collisions.

The string of fragments of the comet, scheduled to hit the planet mid-July, will create a fireball and mushroom cloud in the Jovian atmosphere, similar to but much greater than an atomic bomb explosion. The heat will rise through the atmosphere at the speed of sound, boiling up an estimated 1,000 miles above the clouds. The spectrometer will measure the temperature of the plume, and the absorption or emission of light that shows what chemicals are present.

"Not only do we hope to identify species that lie below the colorful but opaque clouds covering Jupiter, but we also hope to see chemicals produced when the elements and

compounds smash into each other as the fireball is created," said Nicholson, a solar system astronomer.

Nicholson and his group—Tom Hayward, post-doctoral researcher; Jeff van Cleve, research associate; Colleen McGhee, doctoral student; and Jeff Moersch, a graduate student, all at Cornell—will take low- and high-resolution spectra to tell what chemicals were formed by the impact.

The researchers also will compare impact sites with areas not hit by the comet fragments, for a baseline on which to gauge differences in the atmosphere. Also, they will take pictures of the shock waves generated, like ripples from pebbles in a pond, that will occur horizontally in the atmosphere.

"If we measure the speed of these waves, much like the waves generated by a tsunami, we can tell something about a key parameter of the stability of the atmosphere," Nicholson said. "This wave of deformation may tell us how unstable the atmosphere is, how it evolved and whether this instability is long-lived."

The Australian mission will be led by Terry Herter, Cornell associate professor of astronomy. His team will do infrared studies of the comet collisions from the Kuiper Airborne Observatory, a NASA C-141 plane equipped with a 36-inch telescope. The plane will fly 41,000 feet over Australia, when the researchers will examine the collision sites with an infrared instrument built at Cornell, called KEGS. The team includes George Gull, research associate, and Bruce Pirger and Susan Stolovy, graduate students. The principal investigator is Gordon Bjoraker of NASA's Space Flight Center.

The Cornell team will make three consecutive 9 1/2 hour flights on July 17, 18 and 19, to determine if Jupiter has liquid water. They will fly, at 400 mph, about 4,000 miles each day, spanning the Australian continent, looking at three different comet impact sites on Jupiter.

"The explosions may open a window where we can look deep into the Jovian atmosphere," Herter said. "We're looking for water that might be welled up from the



Peter Morenus/University Photography

Associate Professor Terry Herter, right, and graduate student Susan Stolovy with the infrared sensor that will be on the Kuiper Airborne Observatory.

explosion. Water emits strongly in the infrared region. It's really a test of the composition of Jupiter. We think there's water there; the temperature is right, but we've never seen it."

Among the challenges: how to keep a telescope stable and on track during flight turbulence. "This is a unique instrument. We have all kinds of systems to keep it straight," Herter said.

Latin dance band to play

The Latin dance band Rising Sign will play salsa, reggae and contemporary Afro-Latin originals in a concert Friday, July 15, at 7:30 p.m., on the Arts Quad in front of Goldwin Smith Hall. In case of rain, the concert will be held in Alumni Auditorium, Kennedy Hall. The concert is free and open to the public.

Rising Sign, based in Ithaca, plays a mix of Caribbean, Brazilian and Latin music with rhythmic roots in Africa, combined with modern rock and jazz. This seven-member band plays such dance music as salsa, merengue, changui and samba. Jorge Cuevas and Laura Branca provide original lyrics, lead vocals, keyboard, and congas and are backed by Alex Specker on guitar and flute, Harry Aceto on bass, Michael Wellon on drums and timbales, Fred Hiscock on saxophone and Stuart Krasnoff on shekere, guiro and timbale.

The concert is part of six weeks of free concerts and lectures taking place through Aug. 5, sponsored by the School of Continuing Education and Summer Sessions at Cornell.

Other outdoor concerts scheduled include Annie Burns and The Rain on July 1 at 7:30 p.m. and In the Air on July 8.

Check the *Chronicle* calendar for a current listing of events.

Lawmakers tackle ban on military recruiting

By Larry Bernard

The issue of whether colleges and universities can ban the military from recruiting on their campuses because the military discriminates based on sexual orientation is alive in the New York statehouse and U.S. Congress.

In Congress, an amendment to the Defense Authorization bill, the pending law that provides operating money to the Defense Department, states that no institution may receive federal funds if it has the policy or practice of prohibiting military recruiters access to campus or relevant documents.

Sponsored by U.S. Rep. Gerald B.H. Solomon (R-N.Y.), the amendment was included in the bill that passed the House by a 3-to-1 margin and now is in the hands of the U.S. Senate.

A similar amendment sponsored by Solomon is attached to the bill that authorizes money for the National Science Foundation. In 1993, Cornell researchers received \$15 million from DOD and \$77.4 million from NSF. The Senate has not yet acted on any authorization bills this year.

While Cornell would not be affected by these amendments since military recruiting is presently authorized, the Congressional action, if it becomes law, would pose a major problem for the state-operated campuses of the State University of New York system.

As a result of a case involving the University at Buffalo Law School, a New York Supreme Court judge found that the presence of military recruiters on that campus constituted a violation of a 1983 executive order issued by Gov. Mario M. Cuomo that bans discrimination by state

agencies on the basis of sexual orientation. The former chancellor of the system, D. Bruce Johnstone, determined not to appeal the court's finding and issued an order banning such recruitment on state-operated campuses.

Cornell's statutory colleges are not affected by that directive.

Cornell President Frank H.T. Rhodes expressed his concerns in letters last month to U.S. Sens. Alfonse D'Amato (R-N.Y.) and Daniel Patrick Moynihan (D-N.Y.).

SUNY could lose a potential \$200 mil-

'This amendment would set a dangerous precedent by which educational institutions and their research programs would be penalized for obeying state law.'

— President Rhodes

lion with such action, Rhodes pointed out. "This would be a devastating loss for the state of New York, doing permanent damage to more than 30 campuses and their surrounding communities," Rhodes wrote.

"This amendment would set a dangerous precedent by which educational institutions and their research programs would be penalized for obeying state law."

A similar effort is being made in the state legislature. Sen. Joseph Holland (R-New City) and Sen. John B. Daly (R-Lewiston) have introduced legislation that

requires campuses of the state university system to allow military recruitment. That bill has been referred to the Senate's committee on higher education. No action has yet been taken on this subject in the state assembly.

Another amendment to the NSF authorization, this one sponsored by U.S. Rep. Sherwood Boehlert (R-N.Y.), adds requirements of what institutions receiving NSF funds must report to the agency in terms of undergraduate education.

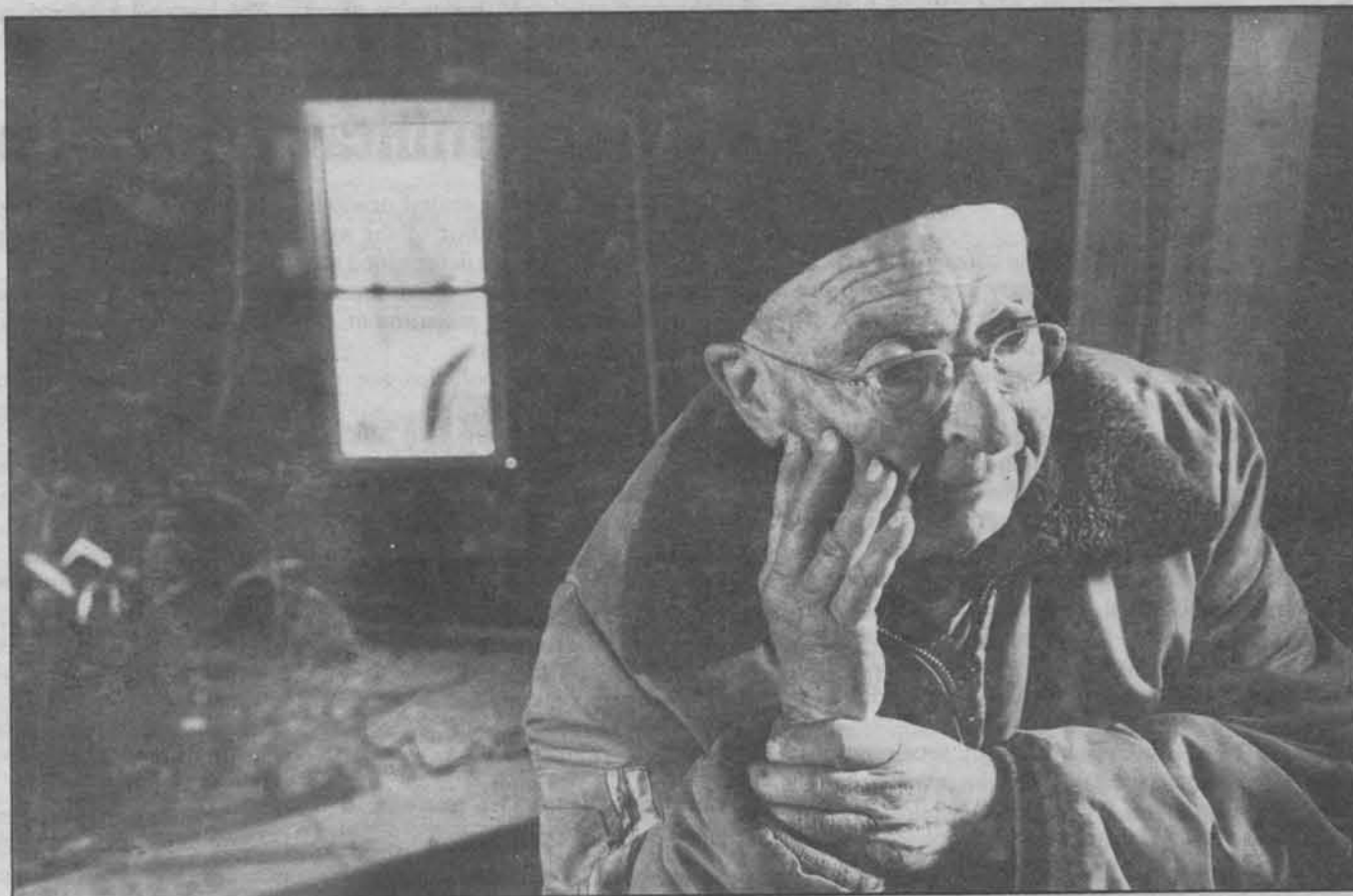
Boehlert, who visited Cornell last month, seeks to require Cornell and other research universities to submit a report showing how federal research funds are used to promote teaching, "to better assess the state of undergraduate education and the effect of federal research funding on education," according to the House Science Committee that reported the bill.

According to the committee report, "The committee is concerned that federal research funding has lessened the prestige of, and focus on, undergraduate education. Universities have begun to address this problem, but they must do so in a far more comprehensive way."

Among the bill's requirements institutions must report to the NSF:

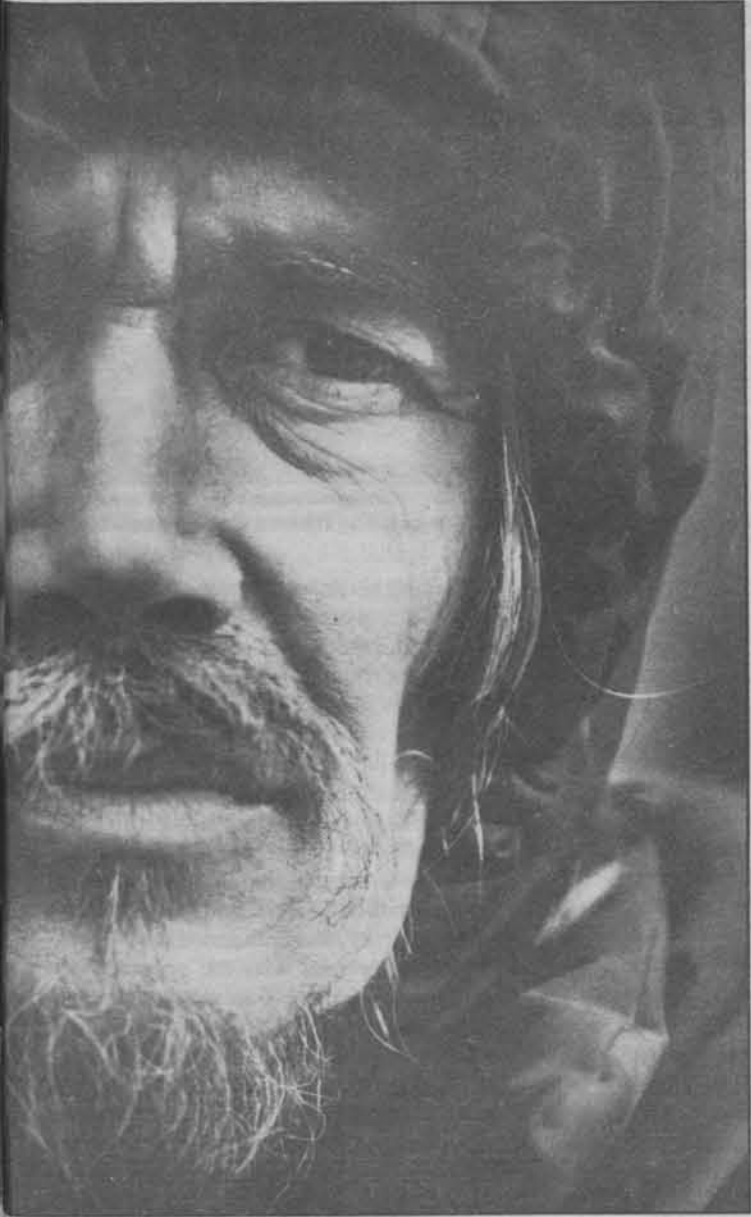
- A description of teacher training programs for teaching assistants, and how many lecture courses are taught by non-faculty members;
- A policy regarding teaching and research in relation to promotions, tenure and salaries;
- The number and percentage of faculty not on sabbatical who have no undergraduate teaching duties.

Photographer of the Year brings h



The award-winning photography entry included the following photographs: The photo upper left was a cover shot for *Human Ecology Forum's* Spring 1992 issue focusing on "Supporting Young Children." Above, Robert Bailey of Ithaca poses in his home that was being remodeled by Ithaca Neighborhood Housing Services. "Francesco," top center, was featured in a 1993 series about the homeless in New York City, as were the two photographs below it. The portrait of Andy Mercado, top right, was taken in Spanish Harlem in 1991 to illustrate Cornell Cooperative Extension's "Harlem Literacy Program." The photo lower right was the cover shot for *Human Ecology Forum's* Fall 1993 issue on the theme of "Child Abuse and Neglect."

me the gold in CASE competition



Photographs by
Chris Hildreth

Officers learn to combine bikes and law

By Ericka Taylor

Police officers from around the north-eastern United States and Canada – including Officer Stan Slovik from Cornell – recently gathered in Ithaca to learn how to ride a bike. Or rather, to learn how better to combine law enforcement with cycling.

The 45 officers representing 25 different agencies participated in a training course for bicycle patrol units held at Ithaca College June 14-17, sponsored by the Finger Lakes Police Mountain Bike Association (FLPMBA). The program was the second held in Ithaca, and it, along with last year's pilot, are the first of its kind in New York state. The course included classroom instruction, with topics ranging from nutrition to crash analysis, as well as practical application allowing the officers to test their skills on bicycles.

Outside, the officers, who came from municipal police departments, four SUNY units and a host of other campus safety and security offices, tackled obstacle courses with curbs and stairs and practiced dismounts, takedowns and basic cycling techniques. They also worked on distance riding and off-road riding at nearby trails.

The trend to train officers for bicycle patrol is increasing, according to Cornell Police Officer Fred Myers, a founder of FLPMBA who helped lead the training session. Police cyclists have the obvious advantage of being able to maneuver in areas impossible for cars to reach. Increased crime control is not the only benefit of having officers on bikes, though, Myers explained.

Patrol cyclists tend to be well-received by the general public, Myers said. "The people you're used to seeing in cars are now on bikes, and all of a sudden you can talk to them," he added. Since people see officers



Sharron Bennett/University Photography

Cornell University Police Officer Fred Myers, standing, leads a regional workshop for bike cops at Ithaca College recently.

on bikes as more approachable, he suggested, it only better the relationship between the police and the community.

This year's program was a "great success," Myers said.

"A lot of the bugs were worked through

sanctioned the program and played a part in the formation of its Finger Lakes counterpart. Members of FLPMBA formed their association and created the Ithaca training program last year after attending an IPMBA conference in Ft. Lauderdale, Fla.

'A lot of the bugs were worked through from last year, and the course is 10 times better in both the number of people [in attendance] and the caliber.'

– Fred Myers

from last year, and the course is 10 times better in both the number of people [in attendance] and the caliber."

Officers successfully completing the course were certified by the International Police Mountain Bike Association (IPMBA) as IPMBA Police Cyclists. The IPMBA

The most recent IPMBA conference, held in San Antonio, Texas, in early May, helped the five Ithaca delegates to plan the course at IC. In Texas, officers representing the Ithaca Police Department, Cornell University Police and the Ithaca College Office of Campus Safety received the latest information

on training needs, equipment and tactics for bicycle patrol officers. The Ithaca delegates also participated in a cycling competition, placing fourth out of 21 teams.

Officers from across the region enjoyed the Ithaca course. Tim Whittle, an officer with the Niagara Regional Police Force in Canada, said that he was "very impressed with the way the program was professionally run." The course was Whittle's first exposure to bicycle training on a practical level for police officers, and he said that he wholeheartedly recommended it.

Also impressed with the program was Brad Silver from the Bureau for Municipal Police, part of the New York State Division of Criminal Justice Service. Silver attended the Ithaca course as well as the Texas conference to help the state determine whether cycle training should be standard for police officers. Silver said that the instruction at IC was actually "considerably better than at the international conference," and he expects the training to become standard for New York.

Alternative to cooling *continued from page 1*

in a closed loop.

The water from the lake would never touch the Cornell chilled water.

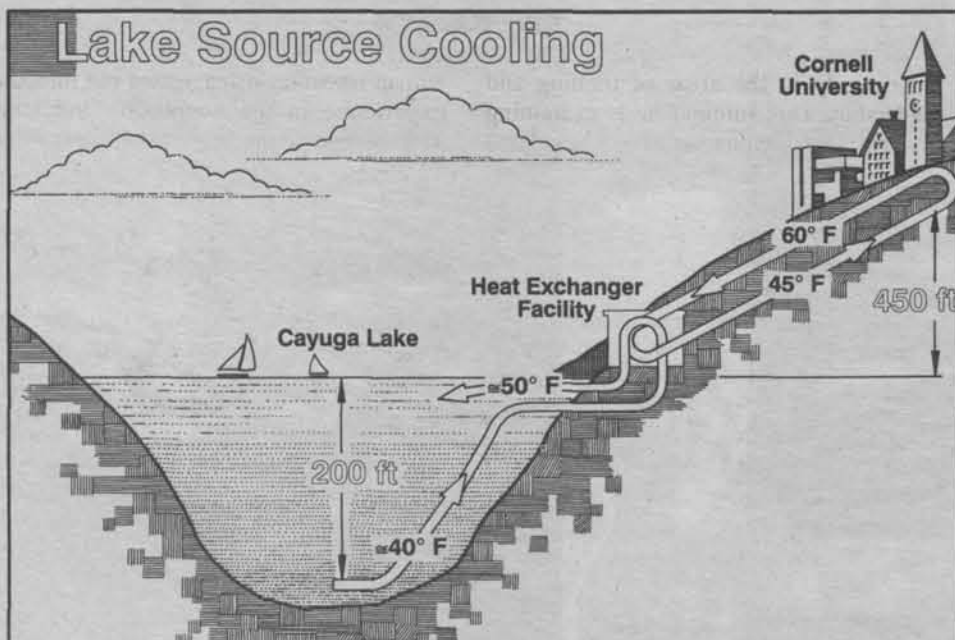
Engineers say the pipes in the lake and the intake, while not yet designed, would be imperceptible to boaters and swimmers. Such details have not been worked out yet. Researchers first must study carefully the environmental effect of such a project on the lake.

Investigators will be on the lake this summer to determine temperature, chemistry, biology and other aspects of the lake ecology to see if the concept is acceptable.

"The volume of lake water circulated would vary daily and seasonally, peaking on the few hottest days of summer," said Robert R. Bland, Cornell senior environmental engineer and the contact for environmental and community concerns.

"Scientists will study this proposal to confirm that this circulation will not result in significant warming of Cayuga Lake."

Preliminary estimates suggest that the project would cost \$50 million or more in today's dollars. This cost might be offset in



Cornell currently uses a central chilled-water system to serve 40 percent of campus buildings, providing general air conditioning and humidity control.

Seven large, electric-powered chillers produce chilled water at 45 degrees. The water is continuously circulated to buildings in a closed loop of underground pipes. Heat from the buildings is transferred to the water, warming it to about 60 degrees.

Lake-source cooling would supply chilled water to a central campus point and then distribute it through the existing network. One chiller would remain as part of the system, along with a thermal storage tank, which won the 1993 Governor's Award for Energy Excellence.

Although there are chemical alternatives to CFCs that would allow continued use of the chillers, lake-source cooling is far more energy efficient, the engineers point out.

"Lake-source cooling uses 10 percent of

the electric power used by the chillers; that translates to almost \$1.5 million in annual energy savings. At least equally important

'We need to know what's feasible, and by opening up a dialogue with the community early in this study phase, we can assure that all the issues are addressed before any decisions are made.'

– Robert Bland

would be the environmental benefits of a 90-percent reduction of pollutants resulting from generating that much less electricity from fossil fuel," Bland said.

If studies show the plan is feasible, Cornell would seek permits from state and local agencies next year, with construction to begin in 1996 for completion by 1998. The plan also calls for a scientific advisory committee, sponsored by Cornell's Center for the Environment, to advise the facilities engineers on environmental, ecological, technological and other issues.

If studies show this alternative is not feasible or not desirable, Cornell will pursue conventional chiller technology.

Cornell officials also are meeting with agencies from local, state and federal governments and community groups to discuss the study.

Last week, Cornell officials briefed representatives of local governments and representatives of environmental groups on the study, asking them for suggestions on possible partnerships where municipal infrastructure, such as sewer or water lines, could be improved along with the Cornell work.

A letter describing the study is being mailed this week to about 300 members of the community and government and state and federal agencies.

"We want to look at everything – environmental and community concerns, economics, as well as engineering issues," Bland said.

"We need to know what's feasible, and by opening up a dialogue with the community early in this study phase, we can assure that all the issues are addressed before any decisions are made."

He added: "We are eager to hear from the community about the lake-source cooling concept. This project is a rare opportunity to convert a large energy consumer from fossil fuel-based technology to responsible use of a renewable resource. It should be given careful consideration by all interested parties."

'This is a promising alternative that could help Cornell, the Ithaca community and the environment yet still enable us to operate a major research university.'

– Henry Doney

the long term by the electric power savings of about \$1.5 million per year and by avoiding capital costs for new and replacement chillers, which could save as much as \$15 to \$20 million, according to utilities engineers.

Hotel 'Teacher of the Year' calls it 'grand experiment'

By Kristin Costello

"It's all a grand experiment!" says Hotel School Professor Bruce Tracey, both in humor and in seriousness, as he reflects on the teaching methods that won him the Ye Hosts Honorary Society's Teacher of the Year award.

The award, voted on by the Hotel School student body, is given annually by the Ye Hosts Honorary Society.

Young, energetic and openly committed to academia, Tracey's "experimentation" has little to do with inexperience, but rather a teaching philosophy focused on promoting an active learning environment that links the conceptual with the practical.

The "Teacher of the Year" plaque presented to Tracey at an awards ceremony in May now proudly adorns his Statler Hall office. It is for him, he says, as much a symbol of his accomplishments in the classroom as it is a motivation to continue to become a better teacher. It also is a tribute to his students' appreciation of a learning environment that poses challenges and innovation.

Tracey primarily teaches the required undergraduate course in human resources management at the Hotel School. While this may sound like an ordinary undergraduate course, under Tracey's instruction it offers students real-life experience in the field of human resources. Tracey is masterful at bringing concepts to life. Take the course he taught this past semester, for example.

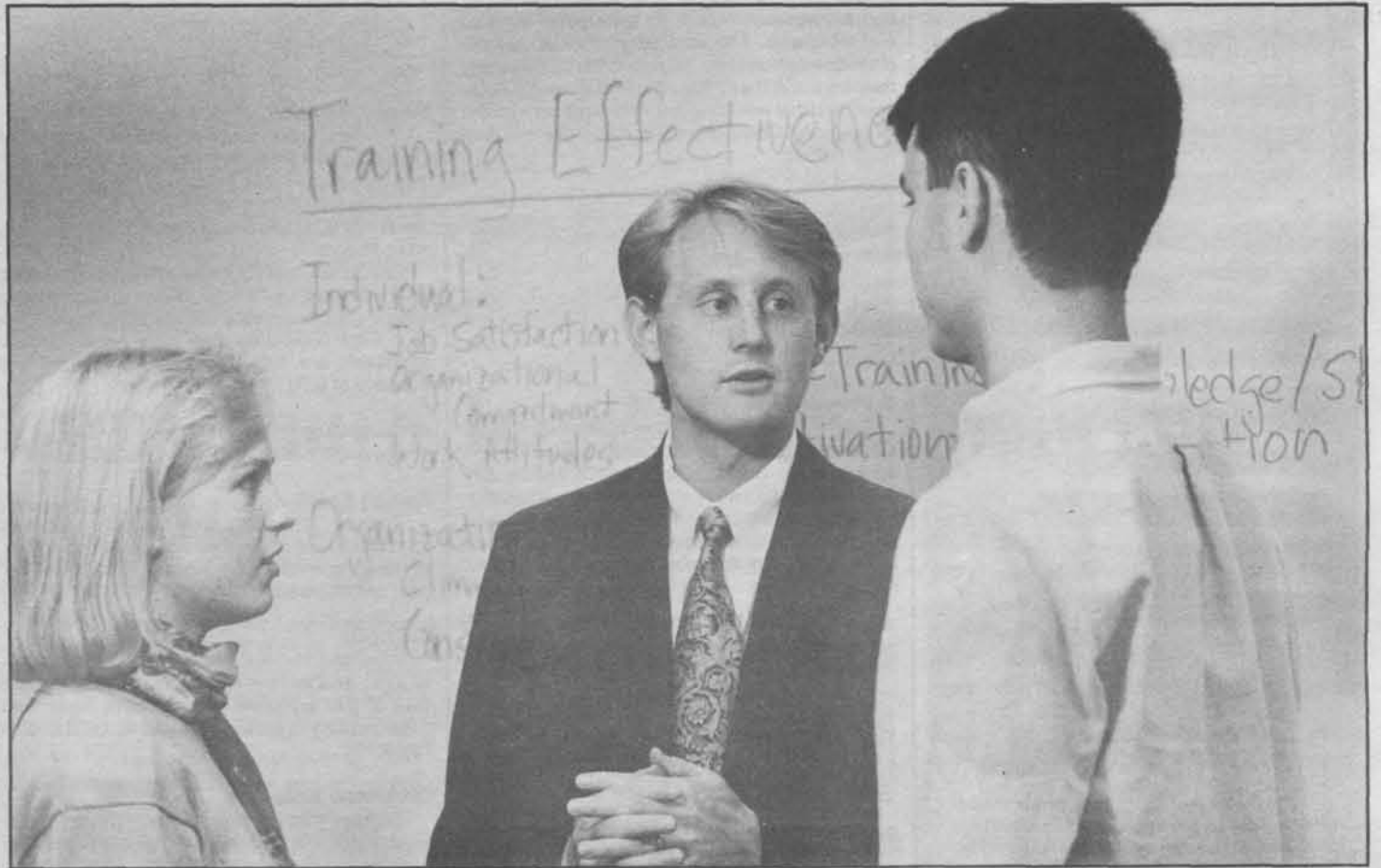
Knowing that the Statler Hotel needed to revise a number of job descriptions for its employees, Tracey identified 35 line-level positions for which his students conducted job analyses. On the basis of the information the students obtained during the first part of the semester, they revised the job descriptions then developed training plans and performance appraisal forms.

Working with the Statler's director of human resources and director of training and development, Tracey said the project was communicated through management to the Statler employees who would participate. However, despite the fact that the process was explained to the employees, students did in fact run into some obstacles while conducting their research and making observations.

"Getting some negative feedback from employees during the semester," Tracey said, "was really part of learning how difficult the process of conducting a job analysis can be. I wanted them to be frustrated at times because I wanted them to experience the realities of the process."

For the job analyses, the students interviewed the employees, observed them during their shift, examined old job descriptions and mission statements and considered any other relevant information, Tracey explained. Throughout the project, he impressed upon the students the importance of acquiring valid data. "You must use multiple methods, multiple sources," he told his class.

At the end of last semester, the students' new job descriptions — printed up, bound and looking very professional — were pre-



Charles Harrington/University Photography

Professor Bruce Tracey, center, talks with students Ann Marie Richardson '94, left, and Phil Baugh '96.

sented to the hotel managers. The idea, Tracey said, was not that the proposals would be considered final drafts, but that they would stimulate communication and provide a forum for exchange between managers and line-level employees.

Aside from teaching at the Hotel School, Tracey has significant research and service responsibilities — components of the job that he views as complementary to his development as a scholar and a teacher. His research

The key to managing the different aspects of the job is maintaining a balance, Tracey said. "The Hotel School promotes and supports a balanced scholarly model; they value teaching very much," he said. That was one of the main reasons Tracey decided to join the Hotel School in 1992, after receiving a doctoral degree in organizational studies from the State University of New York at Albany.

With a broad background in the field of

teaching quality. "I want to be creative with the money," Tracey said, "and plan to do some brainstorming over the summer." He hopes to continue to coordinate projects with the Statler Hotel. "The Statler is really a great resource for the school that I think we should utilize more," he said.

One of his ideas for next semester's course proposes expanding on the project completed this past semester, which would culminate in the design, implementation and evaluation of a training program at the Statler Hotel. "There is the possibility that we could use the money from the award to produce a new orientation video for the Statler," Tracey said. "Down the road, I think it would be exciting to have students work with external property, doing outside consulting work."

Tracey praised the recent success of Hotel School Professor Timothy Hinkin's Quality Management course, which had students visit a conference center in Stony Point, N.Y., and conduct an audit on the quality of the property that resulted in the creation of several quality initiatives for the organization. Tracey said he would like to plan a similar project with a human resource focus.

"By creating the opportunity for students to essentially serve as consultants to the industry, we are placing them in a learning environment where they can take risks as problem-solvers and be creative," Tracey said. "To learn, you have to be engaged. You can't passively do research, and, in the same sense, you can't teach or learn passively."

'The important thing for the students was not so much the written final product as it was the process of getting there.'

— Bruce Tracey

is primarily in the areas of training and leadership. This summer he is examining the influence of a number of individual and organizational variables on the effectiveness of training programs. He also is conducting research on the relationship between transformational leadership and effective managerial practices.

The service aspects of his position are wide-ranging and include advising approximately 25 undergraduates and serving on committees. Outside the Hotel School, Tracey participates on editorial review boards and reviews manuscripts for conferences and journals, which, he says, helps keep him abreast of new ideas and sometimes provides supplemental material for the classroom.

human resources management but minimal experience in the hospitality industry, Tracey devoted the summer before coming to Cornell to a "self-imposed internship" at the Desmond Hotel in Albany, where he was guided through an internship by an alumnus who is general manager there.

Tracey said he continues to learn more about the unique aspects of the hospitality industry through his research, editorial work and the classroom — an environment he envisions as a place for exchanging and creating ideas, not simply presenting them.

As Tracey plans next semester's course, he must also devise ways to spend the \$2,000 awarded to him as Teacher of the Year that is designated specifically for enhancing

PRIZES

Following are additional honors and awards won by faculty and students this year:

College of Architecture, Art and Planning

The Burnham Kelly Award for Distinguished Teaching went to **Jorge Nogueira**, visiting professor in City and Regional Planning.

The Faculty Medal of Art, for a graduating art student demonstrating promise of future achievement in art, went to **Julie L. Hirschfeld**.

The Edith and Walter King Stone Memorial Prizes, awarded at the end of the junior year on the basis of promise and accomplishment in the field of art, went to **Jill Magid**.

The Charles Goodwin Sands Memorial Medal, for exceptional merit in architectural design by architecture students, or exceptional merit in sculpture, painting and composition by art students: silver medals went to: **James De La Vega** and **Rithy Chan**; bronze medals to: **Amy Shakespeare**, **Antonietta Rosati** and **Nathan Williams**.

Research funds *continued from page 1*

how a reduced funding pool would be apportioned, it is impossible to guess how much of Cornell's \$15.03 million would be jeopardized if the cut survives; but university officials said it was certain the impact would be severe.

Murtha, who has opposed recent defense cuts, says the \$900 million savings could be reinvested in bolstering military readiness and improving the lives of military personnel. But much DOD-funded research holds potential benefit far beyond the military. For instance, Ken Birman, associate professor of computer science, has been receiving more than \$1 million a year to develop fault-tolerant high-reliability computer systems that would benefit satellite communications, air-traffic control and international stock-market communications.

Also receiving major DOD grants are James R. Shealy, associate professor of electrical engineering, who receives more than \$1 million a year to work on optical-communication linkages, and mathematics Professor Anil Nerode, whose Mathematical Sciences Institute is receiving \$1.4 million a year for work on symbolic methods and algorithmic/stochastic approaches.

"Such arbitrary and draconian cuts would imperil work that is vital not only to the military but to American competitiveness," says Norman Scott, Cornell's vice president for research and advanced studies. "Moreover, as history has proved so often, basic research can bring undreamed-of benefits into the daily lives of every citizen."

Scott and Cornell's Office of Government Affairs, along with several principal investigators, have been working with the Association of American Universities and other groups to make the case against the sweeping cuts.

President Frank H.T. Rhodes has voiced his concern to Appropriations Committee Chairman David R. Obey (D-Wis.) and has urged that the research funds be restored when the House and Senate meet in conference.

Statewide, universities do about \$65 million in DOD research annually, with \$58 million, or about 90 percent, being done by seven institutions. Columbia has the second highest total, with \$10.8 million; the others are New York University, Rensselaer Polytechnic Institute, University of Rochester, the State University of New York system and Syracuse University.

CALENDAR

June 30
through
July 14

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

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

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

dance

Israeli Folkdancing

Thursdays, 8 to 10 p.m., Kosher Dining Hall, 106 West Ave.

exhibits

Johnson Art Museum

The Herbert F. Johnson Museum of Art, on the corner of University and Central avenues, is open Tuesday through Sunday from 10 a.m. to 5 p.m. and Wednesdays to 8 p.m. Admission is free. Telephone: 255-6464.

Martha Van Rensselaer Hall

"Cross-Dressing: Exchange of Clothing Styles Across Cultures," through Aug. 22, 317 MVR Hall. The exhibit is open daily from 9 a.m. to 4:30 p.m. To enter the exhibit, request a key from 208 MVR.

Plantations

"Peonies on Parade," American Peony Society Garden, through June 29. The garden is located at Plantations headquarters.

"Rhododendrons and Azaleas in Bloom," Bowers Rhododendron Collection, through June 29. The collection is located on Comstock Knoll, adjacent to Plantations headquarters.

graduate bulletin

• **August degree deadline:** Friday, Aug. 19, is the deadline for completing all requirements for an August degree, including submitting the thesis/dissertation to the Graduate School.

• **Dissertation and thesis seminars** will be held in the Morison Seminar Room, Corson/Mudd Hall. The master's thesis seminar will be on Monday, July 18, from 3 to 4 p.m. The doctoral dissertation seminar will be Wednesday, July 20, from 2 to 3 p.m. The thesis adviser will discuss preparing and filing theses and dissertations; students, faculty and typists are encouraged to attend.

• **Travel:** Conference travel grant applications are due at the Graduate Fellowship and Financial Aid Office, Sage Graduate Center, by Aug. 1 for September conferences. Grants for transportation are awarded to registered graduate students in-

vited to present papers.

• **Grad. publications on TurboGopher/CIINFO:** Several publications of the Graduate School are now on the electronic Internet server and are accessible both on the Cornell campus and worldwide. The application booklet, a complete description of the fields with the 1,600 faculty members and their research, the fellowship notebook, and this weekly announcements column are all available. Check under Academic Life and then Grad School.

lectures

Summer Session

"Celia Thaxter and the Isles of Shoals," Virginia Chisholm, caretaker of the Celia Thaxter Garden on Appledore Island, Isles of Shoals, Maine, July 6, 7:45 p.m., Alumni Auditorium, Kennedy Hall.

Diane Ackerman, author of *A Natural History of the Senses* and *A Natural History of Love*, will lecture July 13 at 7:45 p.m. in Alumni Auditorium, Kennedy Hall.

music

Summer Session

• Annie Burns and The Rain will perform original folk rock on July 1 at 7:30 p.m. on the Arts Quad. Rain location: Alumni Auditorium, Kennedy Hall.

• Adrienne Nims and George Torres will perform Latin American music for flute and guitar July 5 at 7:30 p.m. in Barnes Hall Auditorium.

• In the Air will play classic rock from the 60s and 70s July 8 at 7:30 p.m. on the Arts Quad. Rain location: Alumni Auditorium, Kennedy Hall.

• On July 12, the Finger Lakes Chamber Ensemble will perform July 12 at 7:30 p.m. in Barnes Hall Auditorium.

Bound for Glory

July 3 and 10: TBA. Bound for Glory is broadcast Sundays from 8 to 11 p.m. on WVBR-FM, 93.5.

films

Films listed are sponsored by Cornell Cinema unless otherwise noted and are open to the public. All films are \$4.50 (\$4 for students). Films are held in Willard Straight Theatre except where noted.

Thursday, 6/30

"Fiorile" (1992), directed by Paolo and Vittorio Taviani, with Claudio Bigagli, Galatea Ranzi and Michael Vartan, 7:15 p.m.

"The Fugitive" (1993), directed by Andrew Davis, with Harrison Ford and Tommy Lee Jones, 9:50 p.m.

Friday, 7/1

"Fiorile," 7:25 p.m.
"The Fugitive," 10 p.m.

Saturday, 7/2

"Psycho" (1960), directed by Alfred Hitchcock, with Anthony Perkins and Janet Leigh, 7:30 p.m.
"The Fugitive," 10 p.m.

Sunday, 7/3

"Invasion of the Body Snatchers" (1956), directed by Don Siegel, with Kevin McCarthy, Dana Wynter and Larry Gates, 7:30 p.m.

Monday, 7/4

"Tales of Hoffman" (1951), directed by Michael Powell and Emeric Pressburger, with Moira Shearer, Robert Rounseville and Pamela Brown, 7 p.m.
"Invasion of the Body Snatchers," 10:20 p.m.

Tuesday, 7/5

"The Train Rolls On" and "Happiness" (1934/1971), directed by Alexander Medvedkin, with guest accompanist Philip Carli, 7:30 p.m.
"Fiorile," 10 p.m.

Wednesday, 7/6

"Schindler's List" (1993), directed by Steven Spielberg, with Liam Neeson and Ralph Fiennes, 7 p.m.
"Psycho," 10:45 p.m.

Thursday, 7/7

"Body Snatchers" (1993), directed by Abel Ferrara, with Gabrielle Anwar, Terry Kinney and Meg Tilly, 7 p.m.
"Schindler's List," 9:05 p.m.

religion

Sage Chapel

The Rev. Janet Shortall, assistant director of Cornell United Religious Work, will give the sermon July 3 at 11 a.m.

W. Sidney Young, chaplain for the Church of Jesus Christ of Latter-day Saints, will speak July 10 at 11 a.m.

The Sage Chapel Summer Choir provides music and is directed by George Damp. Participation is open; no auditions required. The first rehearsal will be in Sage Chapel on June 30 at 7 p.m. Regular rehearsals are held Thursdays at 7 p.m. and Sundays at 9:30 a.m.

African-American

Sundays, 5:30 p.m., Robert Purcell Union.

Baha'i Faith

Fridays, 7:30 p.m., firesides with speakers, open discussion and refreshments. Sunday morning dawn prayers and breakfast, 7 a.m.. For details, call 272-5320.

Catholic

Weekend Masses: Saturday, 5 p.m.; Sunday, 10 a.m., Anabel Taylor Auditorium. Daily Masses at 12:20 p.m. in Anabel Taylor Chapel. Sacrament of Reconciliation, Saturday, 3:30 p.m., G-22 Anabel Taylor Hall.

Christian Science

Testimony and discussion meeting every Thursday at 7 p.m., Founders Room, Anabel Taylor Hall.

Episcopal (Anglican)

Sundays, worship and Eucharist, 9:30 a.m., Anabel Taylor Chapel.

Friends (Quakers)

Sundays, 9:45 a.m., adult discussion; 11 a.m., meeting for worship, Edwards Room, Anabel Taylor Hall.

Jewish

Morning Minyan at Young Israel, 106 West Ave., call 272-5810.

Reform: Fridays 6 p.m., chapel, Anabel Taylor Hall; Conservative/Egalitarian: Fridays, 6 p.m., Founders Room, and Saturdays 9:30 a.m.,

Founders Room, Anabel Taylor Hall; Orthodox: Friday, call 272-5810 for time, and Saturday, 9:15 a.m., Edwards Room, Anabel Taylor Hall.

Korean Church

Sundays, 1 p.m., chapel, Anabel Taylor Hall.

Muslim

Friday Juma' prayer, 1:15 p.m., One World Room, Anabel Taylor Hall. Daily Zuhri, Asr, Maghreb and Isha' prayers at 218 Anabel Taylor Hall.

Protestant Cooperative Ministry

Sundays, 11 a.m., chapel, Anabel Taylor Hall.

Sri Satya Sai Baba

Sundays, 10:30 a.m., 319 N. Tioga St. For details call 273-4261 or 533-7172.

Zen Buddhist

Thursdays, 5 p.m., chapel, Anabel Taylor Hall.

seminars

Ecology & Systematics

"Ecophysiological Studies of Four Amazonian Weedy Species: Implications for Weed Management Strategies," Moacyr Dias-Filho, ecology & evolutionary biology, July 6, 11 a.m., A409 Corson Hall.

miscellany

Alcoholics Anonymous

Meetings are held Monday through Friday at 12:15 p.m. and Saturday evenings 7 p.m. in Anabel Taylor Hall. For more information call 273-1541.

Astronomical Observing

The Cornell Astronomical Society hosts an open house every clear Friday evening at Fuertes Observatory, next to Helen Newman Gymnasium. Visiting hours are held from 8 p.m. to midnight.



Umberto Montioli/Fine Line Features

"Fiorile," directed by Paolo and Vittorio Taviani and featuring Michael Vartan as Jean, is playing at Cornell Cinema this week.

Friday, 7/8

"Schindler's List," 7:15 p.m.
"Body Snatchers," 11 p.m.

Saturday, 7/9

"Schindler's List," 7 p.m.
"Raise the Red Lantern" (1991), directed by Zhang Yimou, with Gong Li, Ma Jingwu and He Caifei, 10:45 p.m.

Sunday, 7/10

"Platoon" (1986), directed by Oliver Stone, with Charlie Sheen, Willem DaFoe and Tom Berenger, 7:30 p.m.

Monday, 7/11

"Boris Godunov" (1986), directed by Sergei Bondarchuk, with Bondarchuk and Alexander Soloviev, 7 p.m.
"Platoon," 10:20 p.m.

Tuesday, 7/12

"A Zed and Two Noughts" (1985), directed by Peter Greenaway, with Andrea Ferreol, Brian Deacon and Eric Deacon, shown with "O, Zool (The Making of a Fiction Film)," directed by Philip Hoffman, 7 p.m.
"Raise the Red Lantern," 10 p.m.

Wednesday, 7/13

"Raise the Red Lantern," 7:15 p.m.
"Naked" (1993), directed by Mike Leigh, with David Thewlis, Lesley Sharp and Greg Cruttwell, 10 p.m.

Thursday, 7/14

"High Lonesome: The Story of Bluegrass Music" (1993), directed by Rachel Liebling, 7:30 p.m.
"Naked," 9:40 p.m.