

# CORNELL Chronicle

Volume 25 Number 38 June 23, 1994

## BUGGING STUDENTS

Entomologists at the Agricultural Experiment Station are taking bugs out of the fields and labs and bringing them to children in the Geneva public schools.

## CLOSETFUL OF LEARNING

Cornell's Anthropology Collection is being transformed into a teaching resource.

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## Environment center can help, congressional staffers told

By Roger Segelken

Problems managing New York City's watershed are typical of other metropolitan areas nationwide, and impartial facilitators, such as the Cornell Center for the Environment, can help, congressional staffers were told on June 10 in Washington, D.C.

More than two dozen staff members from offices of New York's House of Representatives delegation and various House committees heard the first in a planned series of briefings on environmental issues from members of the Center for the Environment. The briefing was sponsored by Reps. Sherwood L. Boehlert (R-23rd) and Maurice D.

Hinchey (D-26th), whose districts include much of the New York City watershed.

One unit of the center, the New York State Water Resources Institute (WRI), is working with New York City to help the city meet more stringent requirements in the federal Safe Drinking Water Act. The city is currently under an federal Environmental Protection Agency "filtration waiver" that avoids installation of a multibillion-dollar filtration system - if pollution sources in the watershed north of the city that serves 9 million persons can be cleaned up by "voluntary practices."

WRI has recommended that New York City assist and support communities and

farms in the watershed to identify and correct pollution sources. Specialists from departments throughout the university are involved in the project.

New York City's watershed "is a paradigm for watershed management of national significance," WRI Director Keith S. Porter told the congressional staff. "It starkly represents the challenge of protecting a very high quality water supply while respecting the social and economic needs of residents in the watershed itself."

New York's is one of a few major metropolitan watersheds that are not fully protected, and proposals to restrict activities on privately owned land in the 2,000-square-

mile watershed have been controversial, according to Michael Voiland, senior legislative associate in Cornell's Office of Government Affairs. The Water Resources Institute attempts to function as an impartial information source and facilitator among the parties involved in the city watershed, although Cornell's role is not always perceived that way, Voiland noted.

Reduction of agriculturally related chemical and biological contaminants is part of the solution, Rodney R. Dieter, director of the Institute for Comparative and Environmental Toxicology and senior fellow in the Center for the Environment, advised. "The challenge

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## Captivating creatures



Cornell entomologist Carolyn Klass holds a female cecropia moth during a lesson on butterflies at the Sciencenter in Ithaca last Saturday.

Sharron Bennett/University Photography

## Cornell makes campus more accessible to all

By Ericka Taylor

A computer that responds to the human voice instead of a typing keyboard may have saved Elizabeth Dempsey-Loid's job.

Dempsey-Loid, an administration manager at Cornell's Department of Natural Resources, has a joint disorder which required surgery in both wrists. The surgery did not restore full use of her right wrist, however, and since keyboarding is an integral part of her work, she was concerned about her job.

But Dempsey-Loid found James Millspaugh, a project leader for information technologies, who told her about a voice-responsive computer system on display in Barton Hall during 1991 reunion week.

A university employee for more than 20 years, Dempsey-Loid was "really impressed with what that system could do" and got approval from Dean David Call for her own IBM Voice-Type. Since then she has used her voice-responsive system to "type" about 30 words per minute without having to be concerned about losing feeling in her fingers after a few minutes.

Cornell faculty, staff and students with disabilities agree that the university has been very responsive to their requests for service and facility adjustments. In fact, Cornell will not need major renovations to comply with the 1990 Americans with Disabilities Act (ADA) because many improvements already have been made, university officials say.

Dempsey-Loid is just one of many benefitting from changes implemented on campus before and after passage of the ADA. The student staffing the display Dempsey-Loid saw at Barton Hall that summer was the man who had introduced Voice-Type to the university and was trying to gain approval for some university-funded systems.

Jeorg Draeger, a graduate research assistant in physics, had been told about Voice-Type by a blind student who had the system. The Office of Equal Opportunity, the International Students Office and the Physics Department purchased one at the urging of Draeger, who has a joint disorder.

Voice-Type "has given me independence," he said, "and even saved the university money" because Cornell doesn't have

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## Language studies provide windows into the mind

By Susan Lang

"Bert eats his banana and Ernie does too."

How a child interprets that ambiguous sentence (does Ernie eat his own banana or Bert's?) is part of a larger series of cross-linguistic studies at Cornell that support the theory that humans are born with a biologically programmed "language faculty," known as Universal Grammar.

The studies also are providing valuable clues as to how children acquire language, and to the nuts and bolts of the brain itself.

"Study of the language faculty is critical to the study of cognitive science and cognitive development; it allows us to use language as a mirror of the mind, and ultimately it will give us a way to research the

brain and its structure," said Barbara Lust, Ph.D., a developmental cognitive psycholinguist who has been heading studies on language acquisition in the College of Human Ecology at Cornell for more than 15 years.

"In comparing the acquisition of more than 15 languages, we are finding strong evidence for innate biological programming for abstract principles, parameters and rules of grammar that a child maps to his or her own specific language," said Lust, who teaches undergraduate courses on primary language development and growth of the mind (cognitive development). These abstract principles provide the ultimate architecture for language acquisition and help to explain why normal children everywhere so successfully achieve their language within the first few years of life. New evidence is

suggesting that much of this formal architecture is in place and at work even before children actually speak in full sentences.

For example, in the sentence above, "Bert eats his banana and Ernie does too," there is no perceptual information in the second clause, only the abstract "does too."

"Yet we compute two possible meanings, each with different structures, when we understand this sentence," Lust said. With graduate students Claire Foley of Boston and Zelmira Nuñez del Prado of Peru, Lust reported that the experimental research on these structures in her lab and matched studies in other languages show that there is no testable age at which children at very early stages of language acquisition fail to compute not only a correct interpretation of

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## Power outage cooks campus

In the middle of last week's heat wave some campus buildings got even hotter when a power outage hit North-Campus on Friday, cutting off electricity in 22 buildings.

According to Harold D. Craft, vice president for facilities and campus services, the outage, that began at 2:10 p.m., was caused by a bad primary cable in the Cornell power distribution system; the cable was located between Mary Donlon and Balch halls. Facilities staff located the problem and restored power by 5:54 p.m. The cable will be replaced in the near future, Craft said.

Among the buildings affected were the Campus Store, the Johnson Museum, Baker Laboratory, Kroch Library, Helen Newman Hall, Barnes Hall, Uris Library, Sage Chapel and all North Campus residence halls.

## BRIEFS

■ **Award:** Cornell has received the Excellence in Human Resources Award from the Eastern Region of the College and University Personnel Association for the design and implementation of its point-of-service managed care program that provides comprehensive health benefits for employees.

## Cornell in times past



Division of Rare and Manuscript Collections/Carl A. Kroch Library  
Eleanor Roosevelt models student work with textiles and apparel in Bailey Hall about 1930.

## Workshop seeks to spark interest in teaching

By Darryl Geddes

A Cornell workshop, funded by the Andrew W. Mellon Foundation, seeks to help college students from groups under-represented in the teaching profession consider a teaching career in public schools.

The workshop, "Teaching for the 21st Century," runs from June 25 to July 1 on the Cornell campus. It will examine the issues involved in teaching, with an emphasis on multicultural pedagogy.

Deborah Trumbull, an associate professor of education at Cornell, said the workshop will help students to more fully explore teaching as a viable career choice.

"Many college students, for example those pursuing studies in science, get to a point in their studies where they don't see themselves working in a lab," she said. "We want these students to realize that becoming a teacher is an option that should be given serious consideration."

The career exploration workshop is aimed

at undergraduate students from under-represented populations — a segment of the community that is woefully represented in classrooms across America, said workshop co-coordinator Susie Slack. "It is vitally important that the teaching cadre reflects the diversity that is found in the school classrooms across the country," Slack said. She noted that talented students from under-represented backgrounds are among the most sought-after candidates for teaching posts.

However, organizers admit that promoting teaching as a career is a hard sell. Trumbull said the profession continues to be plagued by low wages and a public perception that schools and teachers alike are failing in their mission to educate America's children.

"We aren't trying to sugar-coat the career," Trumbull said. "We want to examine all the issues and problems associated with being a teacher."

Twenty-eight students — representing colleges and universities from across the country — were selected to participate in the

workshop based on their academic performance, letters of recommendation and their interest in the teaching field.

Workshop activities include designing mini-teaching lessons and discussions on multicultural pedagogy. Presenters include Mary Atwater, professor of science education at the University of Georgia, who will speak on multicultural education Monday, June 27 from 9 a.m. to noon; Carlos Castillo-Chavez, Cornell professor of plant breeding and biometry; Ron La France, a graduate student in education and former director of the American Indian Program at Cornell; Carl Grant, professor of Afro-American studies and teacher education at the University of Wisconsin; and Denise Lee and Busi Radebe-Mbata of the Multicultural Multiethnic Center in the Ithaca City School District.

The career exploration workshop is sponsored by the Mellon Fellowships Collaborative, whose members are Cornell, Harvard and Stanford universities and Teachers College of Columbia.

## Open house is set for tonight

By Susan Lang

NEW YORK — An open house from 5 to 7 p.m. on Thursday, June 23, will celebrate the new administrative offices and conference/meeting space for Cornell Cooperative Extension in New York City and the metropolitan district office for the Cornell University New York State School of Industrial and Labor Relations (ILR).

Cornell President Frank H.T. Rhodes, John Dyson, New York City deputy mayor for finance and economical development, the Cornell Board of Trustees and about 300 other guests, including state and city government officials, top management officials, union leaders, Cornell alumni, faculty and staff are expected at the event, at 16 East 34th St., sixth floor ILR Conference Center.

The new Cooperative Extension offices, which are almost twice the size of the old offices at 15 East 26th St., supplement eight other Cornell Cooperative Extension community-based educational centers throughout the city.

With a staff of more than 80 individuals, Cornell Cooperative Extension in New York City provides neighborhood-based, informal education programs for youth and adults that link research to practical problems. Among their many programs, extension

educators and volunteers help urban residents understand ecological and environmental issues, enhance literacy and parenting skills, improve nutrition and health, manage resources and maintain homes more safely and efficiently.

The metropolitan district office for ILR, with a staff of 37 and an adjunct faculty of almost 200, includes a five classroom and three meeting room training center and administrative offices. The metropolitan district office serves union leaders and managers who are decision-makers in their organizations.

Workshops for managers lead to certificates in labor relations, human resources and equal opportunity studies; for union leaders, specialized union leadership training workshops emphasizing collective bargaining, union administration and current issues facing unions, such as preventing sexual harassment and diversity. Other programs include occupational safety and health and special construction industry programs. In addition, the district has added conflict resolution and working with companies and unions in Russia and Poland to ease the transition to a market economy.

This year the metropolitan district office educated and trained approximately 19,000 adults in New York.

## OBITUARIES

**Matthew J. Nozzolio**, 21, a Cornell student and midshipman in Navy ROTC, died June 13 after being stricken with spinal meningitis while serving on the U.S.S. Nassau.

Nozzolio had completed his junior year in the College of Engineering. Recipient of a full Navy ROTC scholarship, he was on active duty aboard the Nassau at the time of his death. He had achieved the rank of midshipman first class.

"Matthew's leadership was recognized when he was chosen by his superior officers as squad leader," Major Steven Dowling of Navy ROTC said. "Primary among his military training was his participation in the Sierra Company, whose assignment concentrated on preparing large Navy vessels for sailing missions."

A graduate of Port Chester High School where he was an honor student who graduated fourth in his class, Nozzolio also was active in numerous extracurricular activities, including serving as president of the school marching band. He was selected several times as a member of the Westchester All-County Band. He also competed on the high school golf team and participated in the Peer Leadership Program.

Nozzolio is survived by his parents, Joseph and Anne Dobie Nozzolio of Port Chester; two sisters, Jane Nozzolio Zuckerberg of Plainview, N.Y., and Beth Nozzolio Catrone of Forest Hills, Queens. He was the nephew and godson of State Sen. Michael F. Nozzolio and his wife, Rosemary.

Funeral services were held in Port Chester June 17. A memorial service will be held on campus at the beginning of the fall semester.

◆  
**Jayesh**, 28, a postdoctoral researcher in the Sibley School of Mechanical and Aerospace Engineering, accidentally drowned over the weekend, according to the Ithaca Police Department.

A researcher in the laboratory of Stephen Pope, professor of mechanical and aerospace engineering, Jayesh was pulled out of Fall Creek near the 300 block of Lake Street on Sunday morning. He was to have met friends in the area of Ithaca Falls Friday evening, friends told police, but did not arrive.

Jayesh came to Cornell in 1988 and earned a Ph.D. in 1993 under Zellman Warhaft, professor of mechanical and aerospace engineering. His thesis was experimental work in fluid mechanics related to dynamics in the atmosphere.

"He was an excellent researcher, had a very inquisitive mind and always did quality work," Pope said. "He was a popular and well-liked fellow."

Jayesh is survived by parents and four sisters, all in India, and a fiancée whom he was to marry in August. The International Students and Scholars Office is arranging for his body to be returned to India.

## Environment *continued from page 1*

before us is to apply the latest multidisciplinary research technologies in a manner that will sustain agricultural production to meet human nutritional needs, contribute economic vitality to watershed regions and ensure that water quality is more aggressively protected," Dietert said. He outlined four intervention strategies to reduce toxicants from farms in watersheds.

Cornell and other academic institutions are looking for ways to integrate the social, biological, physical, medical and engineering sciences "to better address the crucial social, political, economic and ethical realities of environmental problem solving," said James P. Lassoie, Center for the Environment director, and the New York City water-quality problem is one of the realities. "The challenge is to find developmental approaches that assure economic and social viability without accumulating long-term environmental costs."

Hinchey thanked the Center for the Environment for the briefing, the first in planned series on critical environmental issues.

## CORNELL Chronicle

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Cornell University is committed to assisting those persons with disabilities who have special needs. A brochure describing services for persons with disabilities may be obtained by writing to the Office of Equal Opportunity, Cornell University, 234 Day Hall, Ithaca, N.Y. 14853-2801. Other questions or requests for special assistance may also be directed to that office.



# Children's mental health experts examine changes

By Susan Lang

A transformation has occurred this past decade in the delivery of children's mental health services, but health care reform threatens some of that hard-earned progress, warned Jane Knitzer, chair of the national Task Force on Head Start and Mental Health, speaking to the Eighth Annual Conference of the Mental Health Association in New York State (MHANYS) at Cornell June 14.

"Over the past 10 years, we've seen enormous reform efforts with community organizations, including schools, coordinating their services to children with emotional and behavioral disorders," said Knitzer, a visiting professor of psychology at New York University and a consultant to the Mental Health Services Program for Children and Youth funded by the Robert

Wood Johnson Foundation.

The conference Knitzer addressed, "It Takes a Community to Raise a Child," was co-sponsored by the MHANYS and the College of Human Ecology at Cornell on June 12-14. It brought together about 60 children's advocates, policy-makers, providers of children's mental health services, personnel from agencies serving children and families, and parents of children with emotional and behavior disorders.

The primary purpose was to examine how New York's current policies and systems are changing to meet the individual needs.

Knitzer said that policies and systems around the nation are transforming children's mental health, although New York lags behind many states. This transformation includes management plans that have become

more family-focused with parents serving as partners, more opportunities for children to stay at home and participate in after-school and other programs that allow them opportunities for success, and the creative use of funding for intensive home and community services that are tailored to the needs of a particular child.

Although health reform should mean universal coverage, which will be a boon to children's mental health, Knitzer warned that much of the flexibility in spending mental health money may be written out of a national health care plan.

She fears, for example, that narrow definitions of day treatment, in-patient, out-patient and residential care will interfere with creative non-residential services such as respite care and non-traditional services; that collaborative systems of care will not

be supported; and that "pre-existing condition" clauses may prevent many families from changing jobs.

"It's so important to keep children's mental health community-based and multi-agency," said Knitzer. She also stressed the need for early intervention for babies to 6-year-olds, more services for children at risk by getting mental health services into schools and helping teachers with difficult children and lifting regulations that interfere with the creative use of funding.

Conference participants also explored research and national initiatives, milestones in family preservation and early intervention, the effects of community violence on children's mental health, coping strategies of children raised by parents with psychiatric disabilities and school-based mental health services.

## Akwe:kon Press wins \$150,000

Akwe:kon Press, the journal and book publisher in Cornell's American Indian Program, has been awarded a two-year, \$150,000 grant by the John D. and Catherine T. MacArthur Foundation.

The grant will be used for market research and development of a business plan, according to José Barreiro, editor of Akwe:kon Press, which began in 1984 with publication of *Northeast Indian Quarterly*, now known as *Akwe:kon Journal*.

"We have grown considerably in the past 10 years, both conceptually and in size," said Barreiro, head of the press and journal that means "all of us" in its Iroquois language name. "It is time that we look at our audience — and our potential audiences — and consider how best to serve their needs."

Since the quarterly's first issue, the editor said, the journal has been the publishing voice of a Native cultural intelligence.

"We intend to deepen our involvement, widen our coverage and create a mechanism for the growing flow of knowledge. The MacArthur Foundation development grant helps us meet that challenge," Barreiro said.

Besides the scholarly journal, Akwe:kon Press publishes school curriculum materials and books of collected essays and articles. Among the Akwe:kon publications are *Indian Roots of American Democracy* and *Indian Corn of the Americas: Gift to the World*.

## Celebrating a 75th



Sharron Bennett/University Photography

Ralph Hardy, left, president of the Boyce Thompson Institute, and Michael Heyman, counselor to the secretary, U.S. Department of the Interior, get ready to enjoy the luncheon last Friday held at the Plantations Arboretum to celebrate the 75th anniversary of the institute. Heyman was guest speaker at the luncheon for about 200.

## Upgrades to radio telescope in Arecibo, Puerto Rico, are on schedule

By Larry Bernard

Cornell's radio telescope in Arecibo, Puerto Rico, already the world's most sensitive instrument of its kind and undergoing a major upgrade, is scheduled to have upgrades completed in fall 1995, officials of the National Atmosphere and Ionosphere Center (NAIC) said at Cornell last week.

Operated by Cornell for the National Science Foundation, the 1,000-foot Arecibo Observatory is the world's largest radio telescope for radio and radar studies of objects in the solar system and distant stars and galaxies.

Now in the midst of a \$23 million upgrade, the telescope will become far more sensitive and useful for studying a variety of objects in the universe, said Paul Goldsmith, professor of astronomy and director of the NAIC.

"This is a big boost in sensitivity. What's exciting is the part we can't predict. Yes, we'll be able to image the surface of a planet better, but radio astronomy is littered with serendipitous discoveries — like pulsars, the cosmic background — that you could not have predicted. Who knows what we'll find with the increased sensitivity?"

Already, the radar is sensitive enough to detect a baseball on the moon or beyond. The increase in sensitivity is a factor of about 20 for objects in the solar system, and a factor of about three for distant galaxies.

The upgrade also will allow scientists to use more radio frequencies.

"It's a spectacular increase in sensitivity for radar studies. We'll increase the number of asteroids we can look at by a huge amount," said Donald F. Campbell, associate director of the NAIC and a professor of astronomy. "We'll see an enormous number of objects in the asteroid belt. We'll have at least three new comet opportunities, and vastly improved measurements of Mercury,

of background radio noise from the ground, which interferes with reception of cosmic signals.

Still to come, however, is the change in the telescope's optics, the way in which it focuses incoming radio waves. The facility also is doubling to 1 megawatt the power of the transmitter used for radar studies.

A radio and radar telescope differs from an optical telescope in a key respect — with an optical telescope, light waves are col-

llected and put into a computer.

Under planned improvements, the suspended line feeds will be replaced with two reflectors and a horn feed. The radio carriage houses will be replaced as well, with a reflector combination of two mirrors, one 80-foot and one 30-foot, encased in a dome. The whole structure will be as big as a six-story building, about 60-feet high, weighing 90 tons — about the size of the Space Sciences Building. Cables and towers will be reinforced as well.

While work to reinforce the towers and cables has begun, the reflectors will not be installed until next year.

The reflector "dish" itself will not change. At 1,000-feet in diameter and 167 feet deep, the dish is made of 40,000 perforated aluminum panels each about 3-by-6-feet, supported by a network of steel cables. Each panel is adjustable to maintain a precise sphere, that varies less than 0.12 inches over the entire 20-acre surface.

This reflector is the world's largest curved focusing antenna, and thus the most sensitive. While other radio telescopes may require hours to collect enough energy for analysis, Arecibo can do it in minutes. Its sensitivity has allowed astronomers to "peer" at quasars 10 billion light years away, near the edge of the observable universe; distant galaxies; pulsars; and interstellar clouds. It operates in the frequency range of 50 MHz to 5,000 MHz.

**'For solar system studies, we'll have a far greater ability to make images of asteroids, comets and other objects, and we'll have a better view of distant objects.'**

— Paul Goldsmith

Venus, Mars and the satellites of Jupiter."

NAIC scientists and researchers from Puerto Rico and Cornell gathered at the Space Sciences Building June 16 and 17 for their second Internal Symposium on the status of the facility and future research there. The meetings regularly alternate between the Arecibo Observatory and the Cornell campus.

A 50-foot-high steel mesh fence already has been installed around the 1,000-foot aluminum-coated dish, to reduce the level

lected by the human eye or photographic film or sensors; but a radio telescope collects electromagnetic waves, or radiation at radio wavelengths. Therefore, clouds, haze and even daylight do not interfere with the signals.

The reflector collects these signals and focuses them on feed antennae suspended from two carriage houses that are held by a 600-ton platform over the reflector. Receivers inside the carriage houses send the signal by cable to the ground, where they are



# Cornell to host meeting set on new alliance

By Ed Hershey

Small and mid-sized electronics manufacturers from across New York and northern Pennsylvania will have the chance in August to learn first-hand about a new research and design resource available to them through an alliance among Cornell, Binghamton University and IBM.

Plans for the network of electronic packaging facilities in New York's southern tier will be unveiled at an information meeting Tuesday, Aug. 16, in the Biotechnology Building on the Cornell campus.

"This network represents an exciting and innovative triple alliance," said Che-Yu Li, director of Cornell's new Advanced Electronic Packaging Facility and professor and chair of the Department of Materials Science and Engineering. "It is an alliance between education and industry, between industry and government, and between a private and a public center of technology. Its focus is research in product-oriented engineering."

Harry Kroger, professor and director of Binghamton University's Integrated Electronics Engineering Center, will administer the new Technology Product Analysis Facility there. He noted the network "can provide many smaller electronics packagers with capabilities heretofore available to the giants of the industry. The alliance will offer specific solutions for problems with manufacturing processes, quality or yields; engineering research and development; comprehensive analytical services; design, fabrication and test facilities; personal help and consultation; and access to modern laboratories and training."

IBM Microelectronics will bring extensive specialized capabilities to the network. Utilizing laboratories with associated expertise in the area of mechanics and micromechanics and thermal analysis and measurements, IBM professionals will work as part of a team to help manufacturers in the field of electronics packaging to solve problems.

Li, Kroger and Don Barr, manager of materials science at IBM's Microelectronics facility in Endicott, will review capabilities of the alliance at the information session in August. Following the Cornell meeting, there will be a tour of Cornell's new facility on the first floor of Kimball Hall, where personnel from Binghamton University, Cornell and IBM will be available to answer questions. A reception and dinner at the Biotechnology Building will follow the tour.

Firms in New York and Pennsylvania that might benefit from additional electronic packaging and assembly expertise will be invited to the August session. Industrial engineers and executives can get more information about the meeting or the network from Karen Phillips at Cornell (phone 607-255-2675 or fax 607-255-6575) or Molly Lane at Binghamton (phone 607-777-4332, fax 607-777-4683). The TPAF at Binghamton is funded partially through a three-year, \$1.5 million grant from the Urban Development Corp. The AEPF at Cornell is funded by the National Science Foundation, the Alliance for Electronic Packaging at Cornell and New York state.



From left, graduate students David Parkinson and Lynn Santelmann look on as Professor Barbara Lust talks with graduate student Katharina Boser during a class. Sharron Bennett/University Photography

## Language *continued from page 1*

this complex structure, but *both* possible interpretations.

"Such complex knowledge, without a sensory basis, must imply the presence of very abstract and complex principles and linguistic computation in the child mind," Lust explained.

Lust's work not only sheds light on the nature of the mind, but has ultimate applications to the learning of second languages, to understanding and diagnosing language disorders such as aphasia (a loss in the ability to use or understand language due to brain damage), possibly even to robotics and artificial intelligence.

"We're beginning to separate out factors which most crucially depend on environment and specific language input and those that do not; it is critical that we fully understand the 'normal' course of development to better understand the 'abnormal,'" Lust said.

Her research also provides important clues for scientists studying neurobiology, cognitive psychology, perception, memory and learning.

Lust is a professor of human development and family studies and of modern languages and linguistics at Cornell. She also is co-director and graduate field representative of Cornell's Cognitive Studies Program, an interdisciplinary program that combines scholarship on the philosophy of mind and language, theoretical linguistics, cognitive psychology, mathematical logic and computing theory.

Lust often oversees more than a dozen undergraduate and a dozen graduate student research projects at any one time, each set up to add a piece to the cross-linguistic puzzle. She and her students are exploring questions such as:

- If there is, indeed, a language faculty in the human brain

that is biologically programmed, how does it foster and constrain language development?

- What are the abstract principles that children are born with regarding language ability and what is learned?

Her students not only work individually with children aged 1 to 5 years learning language, gathering empirical information on the development of syntax, but also analyze cross-linguistic data stored in the Cornell Language Acquisition Laboratory, home to more than 1,000 natural speech samples from many developmental periods in more than 15 languages and hundreds of thousands of data points of children's language from scores of language experiments. In her interdisciplinary laboratory, linguistic theory is integrated with developmental psychology.

Katharina Boser, a doctoral student in developmental psychology from Scarsdale, N.Y., for example, used a Fulbright scholarship last year to work with 15 German children in a longitudinal study of their acquisition of German word order.

"I'm trying to determine how early in a child's development they evidence adult-like grammatical complexity in their natural speech. By comparing what we learn in German with data from acquisition of other languages, we can get a handle on what's going on universally in the child mind and try to tease out what's common to all of them," Boser said.

Lust is the first editor of a two-volume monograph, *Syntactic Theory and First Language Acquisition: Cross-Linguistic Perspectives*, to be published later this year, and co-author of numerous recently published articles.

## Accessible campus *continued from page 1*

to hire anyone to assist him, and he can access the system whenever he wants. Draeger says he does everything from making calculations and working out formulas to taking notes on the system.

John Brake, the William I. Myer Professor of Agricultural Finance, has benefited from changes made on the agriculture quadrangle. Brake, who had polio, said two steps leading to the back door of Warren Hall didn't have a railing. That made climbing the stairs with a cane laborious, but Cornell was alerted to the problem and installed a handrail. Brake also said parking could have been a problem for him, but that from "day one I've had a convenient parking space."

Faculty and staff have been able to make such comments because Cornell has been making improvements steadily in its facilities and services to people with disabilities since the passage of the Rehabilitation Act of 1973, according to Joan Fisher, assistant director, disability services in the Office of Equal Opportunity. Improvements have "been a continuous process," she said.

The ADA defines a disability as a physical or mental impairment which substantially limits some major life activity. More than 400 students, faculty and staff have self-identified themselves as having disabilities, though many others with disabilities do not choose to identify themselves as such for a variety of reasons.

The changes required by the ADA focus especially on persons with hearing and visual impairments, Fisher said. Volume controls on public telephones are required, for example, but Cornell had made such changes well before the ADA mandated them.

The major impetus for change comes from the demands of students, Fisher said. The ADA requires that a person with a disability be involved in the decision-making process on any committee making changes.

Tactile signage, telecommunication devices for deaf people and alternate formats for publication are other areas covered. The Facilities and Campus Services Division is looking into the purchase of a sign machine, for example, that will enable it to make its own Braille signs.

**More than 100 handicapped parking spots have been added to university lots, and existing spots have been reconfigured so that aisles are readily available beside them.**

Several technological changes are being made as well. The university is making arrangements to purchase computers that are voice-responsive for those who can't use their hands. Officials also are setting up a key server locked into one central computer in CIT. Special software, Enlarge and Outspoken, will give any Macintosh on campus the ability to talk or enlarge the screen, and will accommodate up to 80 people at once. Students, faculty and staff with visual impairments, or anyone with a problem with print media, such as dyslexia, will have access. Persons who would like

to access the key server can go to the Office of Equal Opportunity, 234 Day Hall, to obtain an access code.

Recordings for the Blind and other organizations are working to make it possible for students to purchase the original disks of textbooks at the same cost as printed texts. This could help visually impaired students who could either use the Enlarge program to increase the font size of the text or the Outspoken program to hear the text read aloud.

Faculty, staff and students with mobility impairments are being served as well. Fisher noted, for example, that buildings must not just have handicapped restrooms and entrances, but must have paths of access to them that can be easily traversed by someone whose mobility is impaired.

Cornell has "made a lot of strides," Fisher said, in ensuring that facilities are accessible. Classes may be moved so that students who use wheelchairs can attend them and, when it is impossible to move the classroom (because of lab equipment, for example), ramps can be built for access.

Carl Cohen, manager of field and information services at Transportation Services, said additional parking is being provided for people with disabilities. New spaces are being provided first on central campus and in areas that have a high number of visitors.

Other transportation changes include the development of a paratransit system, which involves not only CU Transit, but all Tompkins County public transportation, according to Marc Whitney, manager of operations, CU Transit. Gada-bout is the main provider of Ithaca's paratransit services, running a service parallel to regular routes. A CU Transit van, dispatched by Gadabout, provides shuttle service on campus for students with mobility impairments.



# Cornell entomologists 'bug' elementary students

By Linda McCandless

GENEVA, N.Y. — Entomologists at Cornell's New York State Agricultural Experiment Station have been taking bugs out of the laboratories and fields and putting them into the hands of elementary schoolchildren in the Geneva public schools. Live honey bees, tobacco hornworms, nematodes, cabbage loopers, apple maggots and Japanese beetle grubs have made the trip, and most have lived to "tell" the tale.

Educating the typical "bug swatter" or "insect stomper" about environmental and ecological issues is no small task. In the half-mile that separates the worldclass research facility from North Street Elementary School, for instance, a honey bee makes a transition from being a carefully husbanded partner in fruit tree pollination to a "stinger on the fly" whose existence is threatened every time it lands.

Teaching the children an appreciation for the beneficial aspect of insects was only one of the lessons researchers Jan Nyrop, Art Agnello, Mike Villani and research assistants from Villani's lab hoped to impart to the children.

"If the kids didn't enjoy it, we wouldn't do it," Villani said. "They see that science is exciting work and that it is something both men and women do equally. The reason our approach works is that it is really a team effort. Everybody in my lab is involved in planning and carrying out the activities with the class."

The seven members of Villani's lab team include Nancy Consolie, Luann Preston-Wilsey, Wendy Heusler, Steve Hitchcock,



In the top photo, second graders at North Street Elementary School in Geneva check out a tobacco hornworm which entomologists from the Agricultural Experiment Station brought to class recently. Above, entomologist Nancy Consolie helps the students snare their worms.

Photographs by Kevin Colton

hornworm very intently. In a discipline where chemical cues produced by insects and plants are being increasingly used to control insects biologically, this budding scientist's observation is right on target.

In addition to infusing the children with their enthusiasm for science and being good role models, the entomologists also exposed the kids to technologies not readily available in the public school system. With the high-magnification microscope attached to a video camera that they brought with them from the experiment station, Paul Robbins magnified the hornworm 60 times to show the hornworm's pulsating dorsal aorta. "The hornworm doesn't have one heart like we do," he explained, as the yellow aorta pulsed under the blue skin on

the overhead television.

The third week, the team helped the class set up Japanese beetle terraria using two-liter Coke bottles and Japanese beetle grubs that had been artificially reared in the lab. In two weeks, the beetles pupate, crawl out of the soil, and begin to feed on plant material, affording the kids a fun, hands-on science activity.

"Villani and his team enhance our CIMS (Comprehensive Instructional Management Systems) Science Program phenomenally," said Christine Farrington, the second-grade teacher whom Villani approached about the project last fall. "The kids' observation and language skills are improving tremendously. All the activities are very high-interest and keep their attention."

On May 20, Agnello and Nyrop presented the first of four half-hour mini-courses on insect biology to a group of rapt third and fourth graders and special education students. Props included cases of mounted insects, a wooden fish, a silk tie, a huge hypodermic needle, a picture of a European red mite, a box of compost teeming with insects and worms and an alphabet poster whose letters were made from naturally occurring designs on butterfly wings. Dressed in bug T-shirts and jeans, the two entomologists raised the students' awareness about a world where three-quarters of all animals are insects. In quick succession, the kids learned that all insects have six legs, four wings, three body parts and an exoskeleton; that people have been on the Earth only 100,000 years, whereas cockroaches and beetles have been here millions of years; that there are more than one million species of named insects and another four or five million species that are not yet named; that

**'You never know when you are going to spark an interest that will take a child through the rest of his or her life.'**

— Becky Addona,  
Geneva elementary schools

in a world without insects, we wouldn't have fruits, vegetables, chocolate, tea, linen, vanilla, coffee, silk, cotton, colas or food for higher animals. And — the most important lesson of all — that only one out of 100 insect species is harmful or considered to be a pest.

"I'm convinced that environmental and ecological attitudes are established early in life," said Nyrop, between sessions. "It's important to create an appreciation for science and insects early."

"The entomologists enhance science units that the kids are already doing," said Becky Addona, who is in charge of K-5 enrichment programs at Geneva elementary schools, and who worked closely with Nyrop and Agnello to set up the outreach opportunities. "They make science more real, give the kids hands-on experience and are excellent role models. A lot of them have children in the school." Altogether, the entomologists interacted with about 400 children this spring. "It is a totally volunteer effort on their part, and we appreciate it," Addona said. "It makes such a difference to the kids when people from the community come and share their enthusiasm for their work."

**'We get them thinking about insects. We also try to show them that education can be interesting and fun.'**

— Mike Villani

Paul Robbins, Robert Jarecke and Linda Ferguson-Kolmes.

Villani and his research team spent one hour a week for five weeks with second-graders, and two-and-a-half hours a week for nine weeks with fifth-graders in the North Street School. In May, Nyrop and Agnello presented a series of half-hour enrichment activities centered around elementary insect biology, lifestyles and pest/benefit status that revolved around both pinned and live specimens to third and fourth graders and special education students at North Street and West Street schools. Nyrop also ran a special three-week project with third graders at North Street.

In the second grade, Villani's team concentrated on wowing the kids with a highly interactive, hands-on approach to hexapoda, the official name for insects — "hexa" meaning "six" and "poda" meaning "legs." In the fifth grade, the team taught the children more about scientific methodology, hypotheses, data and how to run an experiment.

The first week, the team took honey bees to class. Breaking up into five groups of five children and one entomologist each, the children observed live bees under the microscope, saw stingers and pollen sacs and learned about the bees' role as pollinators. The second week, the team brought in tobacco hornworms they had reared — blue-green, two-and-one-half-inch caterpillars that the children could hold.

Many were initially squeamish. Tenika Rivers ended up petting the hornworm as it crawled up her forearm. "Ooh, it tickles," she said. "He's soft."

The class took a mini field trip to the school courtyard to collect plant materials to feed the hornworms. Over the next 24 hours, they observed which plants the hornworm preferred. In Trevor Linn's group, the hornworm ignored the tomato leaf and headed for the tulip. "It's like the flower is calling it," said Linn, who was watching the



# 'CU's closet' readied as teaching tool

By Roger Segelken

If the Smithsonian Institution is the nation's attic, Cornell's Anthropology Collections is the university's closet, collecting and preserving all manner of things that mattered to humans.

Now the 126-year-old collection in McGraw Hall, part of a larger university collection that once accumulated everything from a mummified Egyptian scribe to the tanned hide of Cornell President Jacob Gould Schurman's horse, is trying again to be a teaching resource.

"The university was collecting anthropological materials even before classes started in 1868," said Laura Johnson-Kelly, an archaeologist and museum specialist who is the collection's first non-faculty curator. "Many of the archaeological and ethnological materials came from non-anthropologists who discovered artifacts in the course of their research."

Other materials were donated, and portions of the collection were purchased from commercial suppliers, she added.

The 1860s saw the start of now-famous collections, such as the Peabody Museum of Archaeology and Ethnology at Harvard (1866) and the American Museum of Natural History in New York City (1869). And Cornell's founding president, Andrew Dickson White, considered museum collections an important part of the educational experience when he recommended that the university start some.

What President White had in mind were collections in the fields of geology, mineralogy, zoology, comparative anatomy, botany, art, mechanics (now engineering) and agriculture, and he suggested "employing ac-

**'People made these things – tens or thousands of years ago – and people today should have a chance to learn how they did it.'**

— Laura Johnson-Kelly

tive students in the work of collecting specimens most accessible."

For his part, White donated a collection of ancient Peruvian pottery, now in the Johnson Museum of Art, and his personal library of history books made a significant contribution to the young university.

Before reaching McGraw Hall, the miscellaneous University Collections spent 1868-69 in Morrill Hall. By 1885, the Museum of Archaeology claimed some 4,000 specimens.

Now estimated to contain about 13,000 items, the Anthropology Collections wasn't called that until the 1939 founding of the Department of Sociology and Anthropology, and it was rarely used by faculty members. Curator Lauriston Sharp, who died last December as the Goldwin Smith Professor of Anthropology and Asian Studies Emeritus, is



credited with a "heroic effort" to organize the collection – until World War II intervened.

Again in 1960, with the establishment of the Department of Anthropology as a discrete unit, Professor of Anthropology Robert Ascher began organizing the materials for research and teaching. The 1992 appointment of Johnson-Kelly, an archaeologist specializing in Peru, Chile, Argentina and Bolivia, marks another attempt to make the collection more accessible.

Along the way, the collection accumulated an eclectic mix of objects. Its strength is Indian materials of the Americas, Johnson-Kelly noted, particularly pottery, fabrics and fine art-quality baskets.

There also are artifacts from the first excavation of an 1800s slave cabin (at a cotton plantation in Georgia), Ndembu masks (used in rituals in Africa), pre-Columbian American Indian artifacts (many from New York), 3,000-year-old Neolithic tools (of flint from Denmark) and Eskimo artifacts (including complete outfits of clothing).

The most ancient items are 30,000-year-old stone tools from the Upper Paleolithic epoch in Europe. What the Anthropology Collections doesn't have are North American Indian skeletons and grave goods; they would have to be reported for possible repatriation.

"It's hard to put a dollar value on the collection because we don't buy artifacts anymore," Johnson-Kelly explained. Her first priority is ensuring the physical safety of the collection, to be followed by cataloging on the computer. McGraw Hall's wood-and-glass cabinets are fine for storing small items, such as potsherds, she said, but the collection really needs dust-free storage for larger items and fabrics.

Separate areas for teaching and curation would be nice, too, as would climate con-



Photographs by Peter Morenus/University Photography

**In the top photo, students in Anthropology 333, Ethnology of the Andes, survey pottery and textiles of the region with help from Associate Professor of Anthropology Billie Jean Isbell, left. Demonstrating her craft for a class visiting the Anthropology Collections in McGraw Hall, Peruvian weaver and herder Manuela Colque de Zarasa, above, left, shows anthropology graduate student Smita Lahiri a yarn-spinning technique.**

trol, the curator said. New items, before they are added to the collection, are frozen to guard against insect infestation.

In addition to Cornell classes, the Anthropology Collections plays host to visiting students from local schools and loans materials

for classroom and museum use. At workshops and open houses, visitors to the collection can try their hands at weaving, stone-working, netting and flintknapping.

"We try, as much as possible, to be a hands-on museum," Johnson-Kelly said.

## Engineering Professor Eastman wins Humboldt Research Award

By Rachel Preiser

Lester F. Eastman, the John LaPorte Given Professor of Engineering at Cornell, has received the Humboldt Research Award for Senior U.S. Scientists "in recognition of his past achievements in research."

The Humboldt Research Award offers the opportunity for a six-month research stay in Germany. It is intended to promote scientific cooperation between Germany and the home country of the named scientist. Eastman was nominated by German scien-

tist Hans S. Rupprecht from Fraunhofer Institut in Freiburg.

Eastman received his doctorate in electrical engineering in 1957 from Cornell, where he has been teaching ever since.

Since 1965, Eastman has been doing research on compound semiconductor materials, high-speed devices and circuits, and has organized workshops and conferences on these subjects.

In 1977 he joined other Cornell faculty members in helping to found the National Research and Resource Facility at Cornell

(now the National Nanofabrication Facility). His research group is working on molecular-beam epitaxy, microwave transistors, high-speed semiconductor lasers and fundamental phenomena in compound semiconductor quantum electron and optical devices.

He is a Fellow of the Institute of Electrical and Electronics Engineers and was elected to the National Academy of Engineering in 1986. He won the International Gallium Arsenide Symposium Award and the Heinrich Welker Medal in 1991, for his contributions to the concepts and technol-

ogy of compound semiconductors.

Eastman was first to present the idea of ballistic electrons for transistors at a technical meeting in 1981. His theory flew in the face of all that was then known about semiconductors and caused an uproar in the scientific community. This concept is now generally accepted.

More recently, Eastman's related work has culminated in the world's fastest communications laser – the strained multi-quantum well laser – built at Cornell's NNF in 1992 by his research group.



# Architecture, art and planning facilities to be refurbished

By Carole Stone

Cornell architects, artists and planners, whose facilities include some of the oldest buildings on campus, will be moving into refurbished quarters in the next few years.

Cornell's Board of Trustees in January approved in concept the renovation of Rand, Sibley and Tjaden Halls and the Foundry and recently appointed the architectural firm of Schwartz/Silver Architects Inc. to do the work.

"We're looking forward to a very busy time for the next couple of years on the north end of the Arts Quad," said William McMinn, dean of the College of Architecture, Art and Planning.

All four of the college's major buildings will be upgraded with the addition of fire stairs, elevators, wheelchair ramps and improvements in lighting and ventilation,

McMinn said.

Tjaden Hall, which is 102 years old, will be renovated more extensively, and Sibley Hall is expected to have a modest addition added to its back side. The cost of the entire renovation, including the Sibley addition, is expected to be \$25 million.

Tjaden Hall, which houses the Art Department, will be renovated first.

From the outside, the historic building will look the same, with its distinctive brown-stone facade. Inside, the building will be almost entirely gutted – down to its wooden frame. New mechanical systems – heating, air conditioning, ventilation, electricity and plumbing – will be installed, and new classrooms and other spaces will be created. One of the building's new spaces will be a Digital Imaging Center for photography, printing and computer-based art.

The renovation of Tjaden Hall is ex-

pected to begin in the fall of 1995 – a year and a half from now – and it is expected to take about a year, McMinn said. The building will have to be vacated while the work is done, and the Art Department chair and the dean are considering various options for temporarily relocating the art department.

Once Tjaden Hall has been renovated, the college's other three major buildings will be refurbished.

- A three-story wing will be added to the back side of Sibley Hall to house the Fine Arts Library stacks, which are currently on the third floor of Sibley Hall in the east wing. The library's reading room, under the Sibley dome, will stay as it is.

- The east wing of the third floor of Sibley Hall will be converted into offices for faculty and graduate students in the Architecture Department.

- The darkrooms in the basement of

Sibley Hall, which are laboratories for photography classes and are available to all the students in the college, will be moved to Tjaden Hall.

- The Sibley Hall basement, where the college's darkrooms are, will be turned into a studio for the college's Historic Preservation program, now housed in three trailers in the Sibley Parking Lot.

- Rand Hall, home of the undergraduate architecture program, will require new lighting and mechanical systems, new windows and an enlarged shop.

- The Foundry, which houses the college's sculpture program, will need a completely restructured roof.

The metal foundry behind the building called The Foundry does not need repair. It was reopened in November after being shut down the previous spring due to inadequate ventilation.

## Soup can colors inspired by CU

The Campbell Soup Co. has unveiled a new label for its famous soup can but is sticking with the can's traditional colors: white and, that's right, Cornell red.

Campbell's trademark label made its debut in 1898 after Herberton Williams, an executive of the company, attended the annual Cornell-Penn football game during the Thanksgiving holiday weekend.

Williams, inspired by Cornell's brilliant red and white uniforms, persuaded fellow executives to adopt the Ivy League institution's colors for the company's new line of soups.

Last month, Campbell's unveiled a new label for its soup can at a ceremony held at the University of Pennsylvania Museum near Franklin Field, where the Cornell-Penn football game took place. The Cornell colors are now joined on the label by a photograph of the soup or its ingredients.

The use of Cornell's colors, red (PMS 186) and white, are public domain. However, the use of any Cornell name, trademark, logo or insignia is controlled and regulated by the university. Cornell's licensing program enables the university to ensure that Cornell names and artwork appear only on products approved by the university.

The Office of Community Relations at Cornell is responsible for administering the university product licensing program. All questions should be referred to Community Relations at 255-4908.

## Teen shopping spree



Peter Morenus/University Photography

Ithaca-area teens browse through piles of clothing donated by Cornell faculty, staff and students for the second annual "Teen Shopping Spree" held May 27 at the Maplewood Park Community Center.

## Cornell Theory Center announces SuperQuest '94 winners

By Susan Bryson

Tracking comet fragments as they collide with Jupiter, removing static from music and protecting wetlands from coastal erosion are a few of the projects that eight high school student teams from across the country will tackle this summer as winners of the 1994 SuperQuest national supercomputing challenge.

"We are preparing future leaders, demonstrating to them the potential of high-performance computing to solve significant scientific and societal problems," said Malvin H. Kalos, director of the Cornell Theory Center, which coordinates the annual summer program.

Sponsored by the National Science Foundation, the SuperQuest program will bring the high school students and their teacher-coaches to two supercomputing sites this summer: The University of Alabama in Huntsville, to use the resources of the Alabama Supercomputer Network, and Reed College/Oregon Graduate Institute. After training on the supercomputers, with access to the same tools and programs that professional research scientists use, they will test the theories from their winning proposals.

The SuperQuest competition, now in its sixth year, received 103 applications. The eight student teams, with four to each team,

come from all over the country, from the Bronx High School of Science to the Oklahoma School of Science and Mathematics, Evanston Township High School in Illinois to the C.D. Hylton Senior High School in Woodbridge, Va.

Their topics also cover a wide spectrum and display a sophisticated understanding of scientific research techniques. The team from the John H. Reagan High School in Houston will study coastal erosion by putting into the supercomputer wave mechanics, weather conditions and the dimensions of a sample beach. They hope to get a matrix that can be modified into a virtual reality simulation that will show the effects of erosion over time.

To have maximum impact on computational science education, SuperQuest is evolving into a program targeted directly toward high school science and mathematics teachers. Already this summer, two centers, the National Center for Supercomputing Applications at the University of Illinois at Urbana-Champaign, and MCNC in North Carolina (in collaboration with the Cornell Theory Center), will pilot SuperQuest teacher education workshops.

The Cornell Theory Center this summer will conduct an evaluation of the SuperQuest program to date.

Here is the list of winners of the 1994

SuperQuest competition. Winning schools, their project title(s), their students, and their teacher-coach(es) are listed under the SuperQuest Center at which they will participate in the 1994 SuperQuest Summer Institute.

### University of Alabama in Huntsville/ Alabama Supercomputer Network, Huntsville, Ala.

- Alabama School of Mathematics and Science, Mobile, Ala., "Removing Static from Music"; Gregory Bacon, Lisa Chang, Richard Chen and Carl Williams; Albert Lilly and Susan H. Rouillier, teacher-coaches.

- Bronx High School of Science, New York, N.Y., "A Realistic Model for the Evaluation of Health Maintenance Organizations"; Moon Sun Kwak, James Lee, Sung Kim and Landry Ndremihaja; Stephen Kalin and Howard B. Sugarman, teacher-coaches.

- C.D. Hylton Senior High School, Woodridge, Va., "Algorithmic Analysis of Eolian Sand Saltation"; Jeremy Shaffer, Aaron Wolfe, John Staudt III and Andrew Bankert; Nancy P. White, teacher-coach.

- Louisiana School for Math, Science and the Arts, Natchitoches, La., "A Dynamic System Analysis and Simulation Based Upon the Comet Shoemaker Levy 9 and its Impact with Jupiter"; Michael Pruett, David Robertson, David Sea and Steven

Martin; William T. Pinet and Mostafa Shahriar, teacher-coaches.

### Reed College/Oregon Graduate Institute

- Evanston Township High School, Evanston, Ill., "Hard Sphere Simulations of Hydrogenation of Ethylene," Ari Studnitzer; "The Spreading of Microdroplets on Various Substrates," Ilarion Melnikov; "Analysis of Complex 2-D Collisions," Graeme Rohn; "Evolving a Locomotion Controller," Michael Greene; Tienfong Ho and John B. Buchanan, teacher-coaches.

- John H. Reagan High School, Houston, Texas, "Influencing the Forces of Coastal Erosion"; Jason Sheppard, Israel Lugo, Neriah Roberts and Frank Sheppard; Karla Ann Greaves and Dennis Donovan, teacher-coaches.

- Monte Vista High School, Danville, Calif., "A System For Genetic Probability Determination"; Christopher Chung, David Wylie, Jennifer Smalligan and Sina Bari; Roseann Krane and Barry H. Hart, teacher-coaches.

- Oklahoma School of Science and Mathematics, Oklahoma City, Okla., "Viscous Fingering in Lattice Gas Automata"; Rhiju Das, Joseph George, Aaron Higgins and Edward Zhu; Cahit Erkal and Jon S. Campbell, teacher-coaches.



## CALENDAR

June 23  
through  
June 30

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

**Cornell International Folkdancers**

All events are open to the Cornell community and the general public and are free unless otherwise noted. Beginners are welcome, and no partner is needed. For information, call 387-6547.

June 26: 7:30 p.m., dance instruction; 8:30 p.m., request dancing; Atrium, Veterinary Research Tower.

**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.

• "Contemporary Japanese Prints" will be on view through June 26.

• "Rural Japan: Radiance of the Ordinary" will be on view through June 26.

**Martha Van Rensselaer Hall**

"Cross-Dressing: Exchange of Clothing Styles Across Cultures," through Aug. 22, 317 MVR Hall. Thirteen mannequins dressed in clothing borrowed from the Cornell Costume Collection, among other sources, show how aesthetic, cultural and sociopsychological aspects of dress influence the apparel of other cultures. The exhibit is open daily from 9 a.m. to 4:30 p.m. To enter the exhibit, request a key from 208 MVR Hall.

**Plantations**

Cornell Plantations, the university botanical garden and arboretum, is open free of charge seven days a week from sunrise to sunset. For information, call 255-3020.

• "Peonies on Parade," American Peony Society Garden, through June 29. The collection contains more than 50 colorful varieties of tree and herbaceous peonies displayed among other sun-loving perennials. The garden is located at Plantations headquarters.

• "Rhododendrons and Azaleas in Bloom," Bowlers Rhododendron Collection, through June 29. The garden highlights rhododendron species, hybrids and other ericaceous plants that are suitable for landscape use in central New York. The collection is located on Comstock Knoll, adjacent to Plantations headquarters.

## 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), except for Tuesday night Cinema Off-Center (\$2) and Sunday matinees (\$3.50). Films are held in Willard Straight Theatre except where noted.

**Thursday, 6/23**

"Silent Tongue" (1993), directed by Sam Shephard, with River Phoenix, Richard Harris and Sheila Tousey, 7:30 p.m.

"Strictly Ballroom" (1993), directed by Baz Luhrmann, with Paul Mercurio, Tara Morice and Bill Hunter, 9:45 p.m.

**Friday, 6/24**

"Silent Tongue," 7:45 p.m.

"Strictly Ballroom," 10 p.m.

**Saturday, 6/25**

"Europa Europa" (1991), directed by Agnieszka Holland, with Marco Hogschneider and Julie Delpy, 7:30 p.m.

"Strictly Ballroom," 10 p.m.

**Sunday, 6/26**

"Benny and Joon" (1993), directed by Jeremiah Chechik, with Johnny Depp, Mary Stuart Masterson and Aidan Quinn, 7:30 p.m.

**Monday, 6/27**

"Moses and Aaron" (1975), directed by Jean-Marie Straub and Daniele Huillet, with Gunter Reich, Louis Devos and Eva Csapo, 7:15 p.m.

"Benny and Joon," 10 p.m.

**Tuesday, 6/28**

"Ceddo" (1976), directed by Ousmane Sembene, with Manu Dibango, shown with "Sembene: The Making of African Cinema," 7:30 p.m.

**Wednesday, 6/29**

"Benny and Joon," 7:30 p.m.

"The Fugitive" (1993), directed by Andrew Davis, with Harrison Ford and Tommy Lee Jones, 9:45 p.m.

**Thursday, 6/30**

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

"The Fugitive," 9:50 p.m.

## 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.

• **Fellowships for 1993-94:** The Fellowship Notebook, listing over 500 awards, is available in each graduate field office, on CUINFO/Gopher under the heading "Academic Life" and the sub-heading "Grad School," and at the Graduate Fellowship Office, Sage Hall. Postcards are available requesting application forms; some application forms are on file in the Graduate Fellowship Office.

• **Advisers wanted:** Continuing graduate students are being recruited to assist with graduate student orientation, Aug. 19-28. A commitment of about 10 hours over the orientation period is desired. Volunteers will help new graduate students become acquainted with Cornell and the Ithaca community and help run the actual events. Please call 255-1123 for more information and to request an application.

• **Summer graduate registration:** Summer graduate registration continues at the Graduate School information desk, Sage Graduate Center. Student ID is required, and students receive a summer 1994 ID sticker.

## music

**Summer Session**

• Summer Session will hold its welcome reception June 27 from 4 to 6 p.m. on the Arts Quad. Free ice cream will be served, and Cornerstone will perform. (Rain location: Kaufmann Auditorium,



Paul Mercurio and Tara Morice in Baz Luhrmann's "Strictly Ballroom," showing at Cornell Cinema this week.

Goldwin Smith Hall.)

• Florilegium will perform 17th and 18th century music on historical instruments June 28 at 7:30 p.m. in Barnes Hall Auditorium.

**Bound for Glory**

June 26. TBA. Bound for Glory can be heard Sundays from 8 to 11 p.m. on WVBR-FM, 93.5.

## religion

**African-American**

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

**Baha'i Faith**

Fridays, 7 p.m., speakers and open discussion, meet at the Balch Archway. Sunday morning dawn prayers. For details, call 253-2401.

**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 Zuhr, 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

**Agricultural, Resource & Managerial Economics**

"Commodity Promotion: A Generalized Framework for Program Evaluation," Henry Kinnucan, Auburn University, June 23, 10:30 a.m., 401 Warren Hall.

**Plant Pathology**

"Molecular Biology in Fungicide Research," John Hargreaves, Long Ashton Research Station, Bristol, UK, June 29, 3 p.m., A133 Barton Laboratory, Geneva.

## miscellany

**Alcoholics Anonymous**

Meetings are open to the public and will be 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, located on north campus next to Helen Newman Gymnasium. Enjoy stunning views of the planets, moon and other heavenly bodies through an historic 12-inch diameter brass refracting telescope. Visiting hours are held from 8 p.m. to midnight.

**Cornell Plantations**

Horticulture class: "Clematis for Every Garden," Saturday, June 25, 9 a.m. to noon. Preregistration and prepayment are necessary; contact the Cornell Plantations at 255-3020 for information.

**Guitar Lessons**

The Willard Straight Hall Program Board presents Phil Shapiro's group folk guitar lessons. There are six one-hour lessons, on Tuesday evenings, starting Tuesday, June 28, in the International Lounge of the Straight. All students should use the south entrance at the front of the building. Registration is at the first lesson. Just come and bring a guitar. Beginners, 7 p.m.; assumes no knowledge whatsoever. Intermediates, 8 p.m.; for players with some experience. The course costs \$35, payable at the first lesson. For information, call Phil at 844-4535.