

CORNELL Chronicle

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HITTING THE RIGHT NOTES

Soprano Judith Kellock is a noted soloist on stage and a mentor in the classroom.

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MILKING ENERGY SAVINGS

Cornell-developed technology may allow farmers to recover half the energy costs of milking cows.

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Calls to FarmNet show the program is helping N.Y. farmers

By Blaine P. Friedlander Jr.

Good news for the New York state agricultural industry: family farms are being helped, thanks in large part to FarmNet, a state-funded, Cornell-based program. The number of financial distress calls to the program has markedly dropped, but the number of financial planning requests has increased, according to the annual statistics released this week by the program. There was also a substantial increase in the number of calls, overall.

"FarmNet is the only source that farmers have that they can refer to for unbiased help," said Metford Frost, Onondaga dairy farmer and board member of the Onondaga County Farm Bureau. "It's keyed to farm needs and sorting out the problems and then looking at the alternative solutions."

Business management calls increased from 17 percent in

1994 to 32 percent of all the calls in 1995, which Martin believes is the good news: farmers are getting back on their feet. In 1995, about 20 percent, or 272 of the total 1,362 phone calls, were about a farm's financial problems, compared with 1994 when that rate was nearly 30 percent, or 368 of the 1,229 calls.

"This is great news for the agricultural industry," said Cathleen Martin, coordinator of the New York FarmNet program. "When they call early enough, these farm businesses have more options for help. What this means is that we're getting more calls before financial disaster strikes, where we used to get more calls after the farmers' financial problems became unsolvable. FarmNet counselors are reporting more and more farms can be helped."

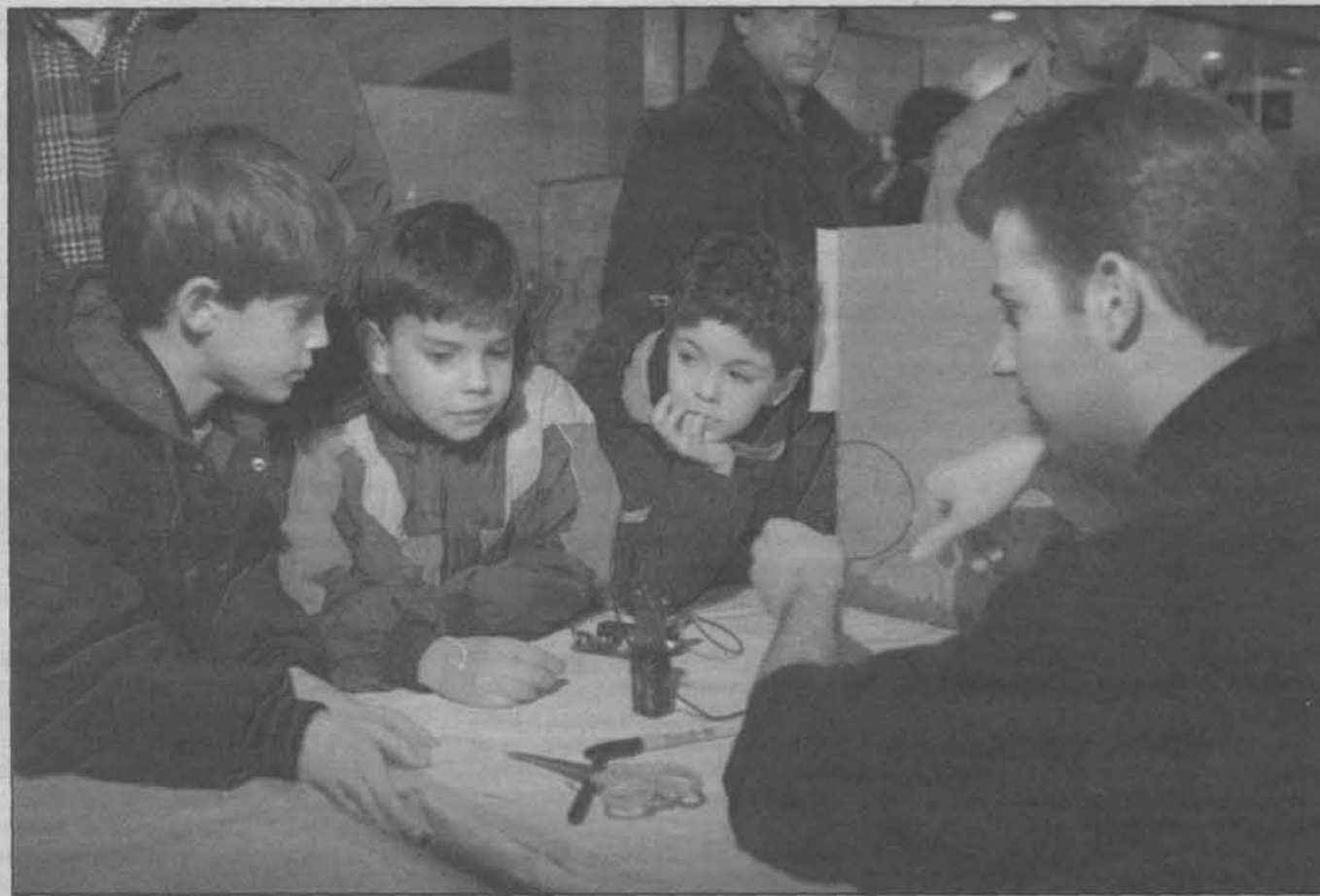
Despite the success, FarmNet's future is once again a \$64,000 question. Martin believes that funding for the

program has been inadvertently left out of Gov. George E. Pataki's budget. Last year, the New York State Assembly and Senate fully reinstated the program after it had been left out of the preliminary budget, and the governor later signed the budget bill that kept FarmNet intact. The state is a partner in funding FarmNet, and nearly half of its funding comes from the private sector.

The total number of calls FarmNet has received since its inception in 1986 is approaching 10,000. In 1994, the network received a total of 1,229 calls. This past year, the total number of calls increased nearly 11 percent to 1,362 calls.

"Many of the Farm Bureau constituents are generational farmers, and some of the young farmers today have many financial and social issue concerns," said Brad Wiley, *Continued on page 2*

Engineering education



David Greenberg '96, an engineering physics major, uses a fiber optic link to explain fiber optic communications to, from left, John Zinder, Graham Wetzler and Adam Zinder. The demonstration was part of Engineering Day at Pyramid Mall on Feb. 17, which featured demonstrations by Cornell engineering students, the Sciencenter and area businesses.

Charles Harrington/University Photography

Supercomputing future hinted at in 'Deep Blue'

By Larry Bernard

Checkmate? Not yet. But having a supercomputer battle the world's human chess champion to a tie after four of six games is just a hint of the future power of these man-made analytical superstars.

So says a Cornell expert, Malvin H. Kalos, a physicist and director of the Cornell Theory Center, which houses a more elaborate version of the IBM SP supercomputer that challenged Garry Kasparov in a six-day, six-game match in Philadelphia at the Association of Computing Machinery '96 annual meeting. Kasparov finally won the grueling match, 4-2.

Kalos, speaking on a panel Feb. 17 about the next 50 years of computing, said that the evenly divided match between "Deep Blue" - IBM's SP supercomputer - and world champion Kasparov shows that "we are on the cusp" of what these increasingly powerful machines can do.

"In the past, no computer could beat the best human chess player," Kalos said. "Now, the computer can play as well as the best



Kalos

Continued on page 4

CU introduces Summer College experience for high school sophomores

By Darryl Geddes

Instead of whiling away the lazy summer days listening to Hootie and the Blowfish and playing video games, a select group of 15-year-olds will be discoursing on the theories and philosophies of John Stuart Mill, Machiavelli and Plato, and earning three college credits.

Cornell, which spawned a new era of educational programming when it launched the first pre-college academic program 35 years ago, has again broken ground with its newest offering, a three-week program for high school sophomores only.

The residential Summer Honors Program for High School Sophomores, which runs from June 30 to July 19, offers students an

early introduction to college life.

While summer academic programs are plentiful, the new Cornell program may be one of a kind, in that it's designed specifically for high school sophomores.

"We had been receiving hundreds of inquiries from parents of high school sophomores asking us if we had a summer education program for their children," said Abby Eller, director of Cornell's Summer College. "We didn't, until this year."

"I think our program meets a need for those students who want to be challenged academically in a setting much different from a summer camp," she said.

Students enrolled in the program will take "Freedom and Justice in the Western Tradition," an introduction to political philosophy,

a popular course regularly offered to Cornell undergraduates. Students will receive a letter grade and, depending on whether they pass or fail, earn college credits.

The class, which will meet for two-and-a-half hours each weekday, is a survey of the development of Western political theory from Plato to the present. Readings will focus on the works of major theorists, such as John Locke, Martin Luther King Jr. and Mary Wollstonecraft, and examine the relevance of their ideas to contemporary politics.

Professor Isaac Kramnick, who will teach the course, admits that Mill's *On Liberty* and Machiavelli's *The Prince* are rather heady reading for high school sophomores, but that's all the more reason for offering the course.

"There is a sense that high schools don't engage students in discussions of the great books and the great thinkers on political questions, possibly because the materials are perceived to be too controversial or too sensitive," Kramnick said. "But, here at Cornell, we want to show these students what college is like; it's the world of ideas where there is no limit or restrictions on discussion."

The students also will be required to participate in a discussion seminar on Leadership in American Society, in which students will examine the qualities, characteristics and values of leaders.

It's no accident that the program is steeped in humanities and mentions not a word of science or math. Both of the latter *Continued on page 4*

USDA official to visit campus on March 7

Karl N. Stauber, undersecretary of research, education and economics at the U.S. Department of Agriculture, will visit Cornell on Thursday, March 7, to meet with deans and hear faculty presentations on selected programs.

"We are delighted to have the opportunity to describe the programs at Cornell which have a direct connection to the USDA — our federal partner," said Daryl Lund, the Ronald P. Lynch Dean of the College of Agriculture and Life Sciences. "Dr. Stauber is very familiar with the federal and state partnership for serving agriculture, the food system, natural resources, as well as rural and community development. This visit represents a demonstration of the value of that partnership."

Stauber is scheduled to meet in the morning with deans and directors of the Cornell College of Human Ecology, present a noon-time seminar, and eat lunch with the deans of the Cornell Colleges of Agriculture and Life Sciences, Veterinary Medicine and Human Ecology.

The university community is invited to attend Stauber's seminar on "Cooperative State Research, Education and Extension Services (CREES) and the Land Grant System: A Vision for the Future," from noon to 1 p.m. in Room G-10 of the Biotechnology Building. A question-and-answer session will follow.

In the afternoon, Stauber will hear presentations about the Agricultural Experiment Station in Geneva and the College of Agriculture and Life Sciences in six areas: agriculture, biological sciences, food systems and nutrition, environment and natural resources, community and rural development, and international programs.

Late in the afternoon, Stauber is scheduled for tours of the Agricultural Research Service laboratories and the new facilities at Cornell's College of Veterinary Medicine.

President Bill Clinton selected Stauber last May as undersecretary for his work in developing research projects involving land grant universities, state experiment stations and farmer-controlled organizations.

CORRECTION

A Feb. 15 article about a gasoline leak at 925 Warren Road gave an incorrect time for the first report of fumes inside the Equine Drug Testing building. Fumes were first reported at 10 a.m. on Feb. 7.

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Johnson Papers come to Cornell



Adriana Rovers/University Photography

At a news conference on Feb. 14 in Carl A. Kroch Library, Alain Seznec, university librarian, thanked Sarah Johnson, left, a graduate student in developmental psychology, for a gift of family papers to Cornell Library. The donation, from Johnson and her sister, Gwyneth Johnson Lymberis, was announced by President Hunter Rawlings. Among the papers are previously undocumented 19th-century letters written by relatives of the donors: U.S. President John Adams and his wife, Abigail Adams.

BRIEFS

■ **Academic awards:** Two Cornell undergraduates — Jessika Trancik '97 and Andrew Warren '96 — were named to the *USA Today* newspaper All USA College Academic second team this month. The award winners — who included 20 first-, second- and third-team members — were selected in a three-step process from 1,231 students nominated by their colleges. Judges — all educators, according to the newspaper — considered grades, academic honors, leadership roles on and off campus, and students' use of their talents beyond the classroom. Trancik, a materials science and engineering major from Ithaca, was cited for her "published research on ceramic materials for the magnetic storage of information and as materials for jet engines." Warren, an entomology major from Englewood, Colo., was cited for "research on taxonomy and biogeography of western Mexican butterflies."

■ **Employee Essentials:** On Feb. 12, University Human Resource Services (UHRS), in collaboration with Cornell Information Technologies (CIT), released Employee Essentials for Windows. This Bear Access service looks and functions exactly the same as the Macintosh version, which has been in production since early November 1995. Employee Essentials gives faculty and staff display access to their benefit coverage and tax withholding status. It also gives all employees (faculty, staff and students) the ability to update

their address information. Please note: students should maintain only the "Personal/W2" address. Other student addresses continue to be maintained through Just the Facts. All employees are encouraged to use this new addition to the Windows Bear Access menu.

■ **Advisory Committee on the Status of Women:** Applications from faculty, staff and students are being sought for eight positions on the university's 23-member Advisory Committee on the Status of Women (ACSW), which in recent years has addressed issues such as career development, pay equity, mentoring, work and family, sexual harassment and other issues important to women. An informational meeting for prospective members will be held on March 13, noon to 1 p.m. in the faculty lounge at 280 Ives Hall. For an application, contact Beatrice Biebuyck, OEO, at 255-3976 or <bmb5@cornell.edu>.

■ **Beatrice Brown Awards:** The Women's Studies Program announces the availability of the Beatrice Brown Awards for graduate students working on some aspect of women and gender. (It is not necessary that the student have a minor in women's studies.) These awards are small grants, generally no more than \$250. They can be used for research and professional development expenses. Some examples of expenses eligible for reimbursement under the award are: pre-proposal work, archival

work, purchase of xeroxes, copies of microfilm, attendance at professional meetings and research-related dissertation expenses. The grants will be awarded for expenses incurred between April 1, 1996, and Sept. 30, 1996. Applications should contain a curriculum vitae, a description of the project of no more than one page, including a budget and a letter from the chair of the student's special committee. The deadline for submission of the application to the Women's Studies Office, 391 Uris Hall, is March 14, 1996. Awards will be announced by mail.

■ **Goethe Prize:** Attention juniors, seniors and graduate students: The Goethe Prize, endowed in 1935 by Ludwig Vogelstein, is awarded annually for the best essay on any topic connected with German literature (10 to 20 pages in German or English). The prize committee may award a first prize of \$250 maximum, and — possibly — a second prize. Essays should be submitted under an assumed name, but the author should indicate junior, senior or graduate status on the essay and submit a sealed envelope containing his/her identification. Each student may enter only one essay; former prize winners are not eligible. The deadline is noon, April 15, 1996. Submit entries to: Dean of the University Faculty, 315 Day Hall. For more information, contact Professor Bonnie Buettner, chair of the prize committee, 183 Goldwin Smith Hall, 255-5265 or 255-4047.

FarmNet continued from page 1

director of the Rensselaer County Farm Bureau. "When there are those kinds of issues that need to be addressed, they find that FarmNet is a great resource to address those kinds of concerns."

Between 1994 and 1995, the types of farms contacting FarmNet have been consistent. Dairy farmers are the leading callers. In 1995, about 54.6 percent of the calls came from dairy farmers, a slight decrease from 55.3 percent of the callers in 1994.

The number of calls to FarmNet from grain or crop farmers increased from 4.5 percent in 1994 to 7.9 percent of all calls

last year. Vegetable farmers, who accounted for about 1.4 percent of all calls in 1994, accounted for about 4.2 percent of all calls this year.

"That kind of sharp increase likely had a lot to do with the drought," Martin said.

The average value of farms that have called upon FarmNet in the past year, Martin said, is about \$314,446. Considering that there were about 170 on-farm visits last year, the gross value of all farms helped by FarmNet was \$53.4 million.

"We look at the cows, crops, family — we look at the whole picture," Martin said.

"Extension agents are needed to answer specific, technical questions, and we're the family and the finance people; we're able to respond quickly — something prompted them to call. Our strength is that we're able to look at family issues and financial issues at the same time."

FarmNet's aim is to increase the farmer's capacity to be self-sufficient.

"Obviously the farmers are contributing to the tax base of the state. In fact, in some parts of the state, the farmers are the tax base. That's why FarmNet is so helpful. We need those family farms," Martin said.

Noted Cornell soprano balances teaching with performing

By Darryl Geddes

Some days Judith Kellock is the teacher who insists that her students breathe from the diaphragm, that they elongate their vowels and that they soften their vibrato.

Other days she's the performer who demands perfection from herself, whether it be sight reading a new composition or singing a familiar Schubert song again.

Kellock's transformation from teacher and mentor to celebrated soprano may at first seem a mystery. In her Lincoln Hall office, furnished with a comfortable couch, floor-to-ceiling bookcase, Oriental rug and grand piano — a giveaway that music is her trade — Kellock, the assistant professor of music, is all teacher. Dressed in casual clothes, Kellock signs add-drop forms, dispenses articulate praise (or criticism) after hearing a student recording, and makes time for visitors who stop by her office unannounced. There isn't the slightest hint that Kellock may be preparing for a recital at Carnegie Hall or negotiating with a recording company about her CD.

But come Friday evening, Kellock the "first-class musician," as she was described by the *Boston Globe*, will become the performer. Dressed in a designer gown, she will take her place by the piano in the spotlight on the Barnes Hall stage ready to sing.

In her only solo recital of the year, Kellock will perform a program of 20th-century works with accompaniments by musical ensembles Friday, Feb. 23, at 8:15 p.m. The performance, which is free and open to the public, will feature music of David Glaser, Robert Sirota, Syracuse composer Daniel Godfrey, Luciano Berio and Kurt Weill.

Her performance of Glaser's *Closely by the Sky* will be a world premiere. The piece is noteworthy in that it pairs Kellock with a not-so-familiar accompaniment for voice — the cello. "When David said he wanted to compose a piece for me, I suggested that it be for only voice and cello," she said. "I adore the sound of the cello and have always wanted to sing with it. The resonance of the cello contrasts nicely with the vocal range of a soprano."

Sirota, dean of the Peabody Conservatory of Music, wrote *Remembrance* for the Belmont (Mass.) Chamber Players in memory of the manager of the Vermont Symphony. Kellock, a soloist with the Chamber Players, was a close friend of the deceased manager. The piece is scored for voice, viola, cello, oboe, clarinet and piano.

Godfrey's composition, *Three Marian Eulogies*, scored for voice, viola and piano, is based on anonymous texts from the 13th century and one from William Dunbar, dating from 1500, all dedicated to the Virgin Mary.

Kellock's successful association with the



Judith Kellock, noted soprano and assistant professor of music, works with Alan Florendo '96, during a voice lesson in her studio in Lincoln Hall.

Adriana Rovers/University Photography

'I enjoy training people who are developing a skill, not merely a vocation, but also for the enjoyment of making music. . . . While my students are all very competitive, they are all very supportive of each other, too.'

— Judith Kellock

German-born U.S. composer Lukas Foss has led to the recent release of her new compact disc, *The Complete Vocal Chamber Music of Lukas Foss*, on Koch International. The recording contains chamber music that previously has been unrecorded. Kellock showcased Foss's work in a 1993 New York recital that won raves from the critics. Allan Kozinn, writing for *The New York Times*, called Kellock "a soprano with a clear, powerful and appealing voice," who gave "consistently eloquent, animated readings" of Foss' work. Foss, now in his 70s, accompanied Kellock on the piano at the recital.

"It's wonderful to be able to perform for the composer," Kellock said. "Being able to speak with the composer enables you to better understand the intent of the piece. It also allows the artist and the composer the opportunity to suggest ways

of doing things differently."

Kellock currently is at work on three other recordings: one of German composer Paul Hindemith's *Das Marien Leben (The Life of the Virgin Mary)*, which is expected to be out by Christmas 1996; the music of Dan Welcher; and a cycle of 13 songs by Lili Boulanger, the younger sister of Nadia Boulanger, an influential teacher of music compositions whose students included Aaron Copland.

Kellock's busy year also found her conducting master classes at the universities of Minnesota, British Columbia and California at Santa Barbara, as well as performing throughout the country. Kellock received a Recitalist Fellowship from the National Endowment for the Arts, which enabled her to perform for groups that otherwise would not have been able to afford

to present such a program.

Despite the success Kellock found on the road and the increase in cultural awareness the fellowship fostered, the recitalist program was eliminated for budgetary reasons, she said.

Kellock always has been in demand as a concert singer, and since the day she joined the Cornell music faculty, she's been in demand as a teacher.

"I have been overwhelmed with the requests from students who want to study singing," noted Kellock, whose pupils include music, physics, biology and architecture majors.

Her experience here differs dramatically from her years as an instructor at The New England Conservatory. "I enjoy training people who are developing a skill, not merely a vocation, but also for the enjoyment of making music," she said. "Students at the conservatory are dedicating themselves to performing careers, which fosters a certain level of competitiveness amongst them. While my students are all very competitive, they are all very supportive of each other, too."

And supportive of their teacher, as Kellock's students take their seats in Barnes Hall Friday evening to hear their teacher perform.

University policy hasn't changed in wake of communications law

By Bill Steele

Rumors notwithstanding, the university has no plans to monitor your computer communications to enforce the new telecommunications law, Cornell Information Technologies (CIT) officials say. But that doesn't mean you shouldn't monitor yourself, they add.

Cornell's Policy on Responsible Use of Electronic Communications already says that users of the university's computer systems are expected to observe all applicable state and federal laws, said Marjorie Hodges, policy adviser to CIT, so no changes in the policy will be made as a result of the new law.

The Computer Decency Act, part of a larger telecommunications reform bill signed by President Bill Clinton last week, prohibits the transmission of "indecent" and "patently offensive" material over computer networks where it might be seen by children. Some legal scholars

believe this in effect prohibits such material on the Internet.

Civil liberties organizations say the law is unconstitutional and have filed lawsuits to overturn it. A federal judge last week temporarily blocked enforcement of the prohibition against "indecent" on the grounds that the term is too vague.

He let stand the prohibition against "patently offensive" material. (Obscenity, including child pornography, is already illegal under other laws.)

University policy says that the university will not ordinarily monitor private messages or files. "If we become aware of behavior that apparently violates the law or university policies or codes, we will need to address it," Hodges said. "But that

doesn't mean we're going to start monitoring for violations of this law or other laws. We have no plans to change our policy of not monitoring."

One rumor currently circulating is that the university has hired additional network monitors to ensure compliance with the law. According to Alan Personius, acting director of network resources for CIT, there is no such job as "network monitor," and there are no plans to create one. In fact, he says, he's not quite sure what a network monitor would be.

A possible source of the story, Personius said, is that CIT recently purchased a number of copies of a computer program called "Tracker," which monitors the amount of traffic on local area networks (LANs) and produces statistical reports that network managers can use to improve performance and avoid crashes. This software doesn't look at the content of messages, he said.

However, most observers agree that

until the status of the new law is clarified, users of computer networks should think carefully about what they transmit. And while the university does not monitor computer use, even moderately skilled hackers can read e-mail and other messages passing through the system. A long-standing rule of thumb is not to send anything across the Internet that you would not want to see attributed to you on the front page of *The New York Times*.

The full text of *The Computer Decency Act*, as passed, is available online at <http://www.bell.com/kbill.html>. Comprehensive information on the CDA lawsuit, including plaintiffs' brief in support of the act, is available at http://www.epic.org/free_speech/censorship/lawsuit/. Cornell's Policy on Responsible Use of Computer Communications is posted at <http://www.univco.cornell.edu/ru/html>.



Hodges

Summer *continued from page 1*

subject areas dominate summer education programs, while humanities get only lip service, Eller notes.

"There are an overabundance of math and science programs available to students of all ages in the summer," she said. "We wanted students to be able to sharpen their thinking, writing and verbal skills with a discussion of political theory and leadership. We want them to have a greater understanding of what is involved in becoming a leader. By developing these skills and discussing these issues, students will be able to excel no matter what direction they take in the future."

The sophomore program differs dramatically from Cornell's venerable Summer College for high school juniors, which attracts more than 600 students annually to the Cornell campus. Launched in 1961, Cornell's Summer College is the oldest of its kind in the nation.

The sophomore program is more structured than the program for juniors, in that all students take the same course and are required to participate in scheduled study hours. Academic assistance for those who need it will not be far away: Teaching assistants will actually live with the students in the residence halls, enabling students to get 'round-the-clock' help.

"The program takes into account the academic stamina of 15-year-olds," Eller said. "We know the students in this program will be high achievers academically, but we also realize that college-level course work can be daunting, so we've given the students plenty of opportunities to seek extra help."



University Photography

A group of Cornell Summer College students gathers on the lawn near Noyes Center on West Campus in 1994.

Students will live in a residence hall, eat meals in campus dining centers and have full access to the university's academic and recreational facilities. The three-week stay at Cornell – including tuition, room and

board – will cost \$2,800.

The application for the program requires students to write an essay describing what distinguishes them from their peers and what they plan to gain from the experience.

In addition, a recommendation from a guidance counselor or teacher must evaluate the student's academic record.

For admissions information, contact the Summer Honors Program at (607) 255-2801.

Computer association names David Gries an outstanding educator

PHILADELPHIA — David Gries, the William L. Lewis Professor of Engineering and professor of computer science at Cornell, received the 1995 Karl V. Karlstrom Outstanding Educator Award Feb. 17 from the Association of Computing Machinery (ACM).

The award was given during the "ACM Computing Week '96," the major annual conference of the international computing organization, being held in Philadelphia.

Gries, who received a plaque and \$5,000, was cited for "his leadership in the training of several generations of computer science students," according to the citation.

The citation continued, "His visionary emphasis on critical thinking and mathematical precision has dramatically changed the face of computer science education. This viewpoint is exemplified by his widely used textbooks on compilers, on the science of programming, and on mathematical foundations for computer science; by his role in curriculum development; and by his training of graduate students who have seeded this view as successful educators at other universities."



Gries

Gries, a charter ACM Fellow, now is the only person to hold the four major educator awards in the computer science field:

- the American Federation of Information Processing Societies' Education Award (1966);
- the ACM SIGCSE Award for Outstanding Contributions to Computer Science Education (1991);
- the Institute for Electrical Engineers Computer Society Taylor Booth Education Award (1994) and;
- the ACM Karl V. Karlstrom Outstanding Educator Award (1995).

At Cornell, Gries was named in June a Weiss Presidential Fellow – one of three faculty members recognized last year for their teaching abilities and contribu-

tions to undergraduate education. He was the adviser of T.V. Raman, a doctoral student whose Ph.D. thesis won the ACM Dissertation Award last year. In 1986, he earned the Clark Award for Excellence in Undergraduate Teaching from Cornell's College of Arts and Sciences.

Gries teaches undergraduate courses in computer programming, discrete mathematics, data structures and programming languages.

His research interests are geared toward a better understanding of the programming process, with respect to sequential and parallel programs, as well as toward bringing research results to the level of undergraduate students. He is the author, co-author or editor of seven books or textbooks and 75 of research papers.

A native of New York City, Gries received his doctoral degree from the Munich Institute of Technology in Germany in 1966, a master's degree from the University of Illinois in 1963 and a bachelor's degree from Queens College in 1960, all in mathematics. He joined Cornell's Computer Science Department in 1969 and was chair from 1982 to 1987.

Supercomputing *continued from page 1*

human. Within the decade, no human will be able to beat a computer. It's just another example of the progress of civilization. Humans with the tools will do better than humans without the tools."

Kalos, who directs a center at Cornell that houses a different IBM SP supercomputer, the world's fastest general purpose computer with 512 processors that work in parallel, described his vision of the supercomputing future at a panel on "Strategic Directions for Computer Science." Chairing the panel was Juris Hartmanis, Cornell's Walter R. Read Professor of Engineering and professor of computer science, and former Turing Award winner.

"Fifty years ago," Kalos said, "no one could have come anywhere close to predicting where computers are now. Just what's in my laptop in power and memory was inconceivable back then. The transistor hadn't even been invented, and to imagine millions of them on a chip just was not possible."

He continued: "The basic technology of computers, its speed and power, has been increasing by a factor of five every

10 years. That's an exponential increase. We probably won't continue exponentially for the next 50 years, but computers will continue to get faster and more powerful." He added, however, "There are no obvious physical limits for the next couple of decades."

Kalos said that "incredible" growth in technology has spurred these advances in computing technology, particularly VLSI—Very Large Scale Integrated Circuits, the chips that serve as the brains of the computer that hold tiny transistors – and optical fibers that allow 1 billion bits of data to be transmitted each second.

In turn, there has been an "incredible growth in applications and services that were not predicted," Kalos said. "In early computing, everyone was thinking numbers. But now we've got information-related applications, like word processing and desktop publishing. The rapid infusion of the Internet into society and the World Wide Web changes the future of computing."

The computing future also depends on two mutually interdependent things: "While

invention is the mother of necessity," he said, rewording the old maxim, "affordability matters. It must be affordable. If it's cheap enough, then applications will be found. But if applications could be found, people would buy them."

While there are no immediate physical limits, there are economic limits, Kalos said, asking what he called the question of the day: "We've got to decide, is it worth spending \$1 billion for radically new technology?"

Kalos said that teraflops computing – machines capable of calculating one trillion operations per second – will be mundane within two to five years. "Eventually, teraflop computers will be everywhere – in your watch, the car, the toaster – there will be services we can't even know about yet."

And while today's fastest supercomputers are 1,000 times as powerful as desktop models, the supercomputers of the future will be 1 million times more powerful, or more, he said. "The architecture may be the same. They will be scalable and will be built from mainstream technology. But all this

will be transparent to the user."

The Cornell Theory Center uses the 512-processor IBM SP supercomputer, among other resources, to help solve Grand Challenge problems – worldwide problems identified by the federal government as requiring high-performance computing capabilities. While not playing chess, the system is used by scientists in such areas as astrophysics, environmental science, biochemistry and medical technology. It is funded by the National Science Foundation, New York state, Cornell, IBM and other corporate partners.

Kalos said that the main themes of future supercomputers will be in modeling the physical, economic and social world. And trying to imagine far into the future, he foresees a "personal physiological modeler," a pocket computer that will monitor humans' bodies from birth; and a "personal brain clone," a computer so powerful it can simulate the human brain and learn along with its human counterpart.

"Within 50 years, we will certainly have the computing power and memory to do all that," Kalos said.



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SHANGHAI'S CHINESE BUSINESS HISTORY RESEARCH CENTER OPENS NEW DOORS FOR SCHOLARS OF CHINA

In 1991, Professor Sherman Cochran (History) and his colleagues at the Shanghai Academy of Social Sciences (SASS) inaugurated a collaborative project to investigate thousands of pre-1949 documents on business in China. Many of these documents were abandoned when investors fled mainland China in the throes of the Communist Revolution of 1949. Funded by a multi-year \$150,000 grant under the auspices of the Henry Luce Foundation's U.S.-China Cooperative Research Program, the project aims to preserve and catalog the vast array of historical materials, some dating back to the 1840s and the Opium War period.

Almost a year after the project's inauguration, a Resource Center for Chinese Business History officially opened at SASS' Institute for Economics. At an impressive ceremony in May 1992, fifty distinguished Chinese scholars heard nine speakers hail the Resource Center as a mark of a new era of openness, permitting unrestricted access to original and unpublished historical business records. Officials from the Academy, led by President Zhang Zhongli, drew comparisons with past eras when research was severely restricted for both Chinese and foreign scholars.

Today the Resource Center contains thousands of documents. With the acquisition of new materials and continuing efforts to catalog long-held papers, the collection is growing by leaps and bounds. Among the many holdings are several sets of documents concerned with both Chinese and Foreign enterprises, such as those from the Rong family enterprises, Liu Hongsheng's enterprises and his account office, the British Tobacco Company, and the Swire Group. The Center has also collected the economic surveys made

by the Chinese Economic and Statistical Research Institute, the records of Zhengxin Accounting House (which was quite active in wartime Shanghai), some foreign banks and mercantile houses, in addition to materials on several Shanghai industries. Catalogs for these different sets of documents are now available at the Center. There are also some bound volumes of newspaper cuttings containing economic news from the 1930s and 1940s and a fair number of important pre-1949 economic journals and books.

The Center's staff, under the direction of Professor Huang Hanmin -- quoted by a visitor as being "one of the Center's greatest resources" -- has been extremely helpful and generous with visitors. Their willingness to provide a complete catalog and to grant full access to all cataloged documents sets a higher standard for openness at the Resource Center than at any other archives in China. The Center has received numerous endorsements by Chinese, Japanese, and Western scholars including one by *Chinese Business History* editor Andrea McElderry, Professor at the University of Louisville. After a six-month research trip to the PRC in 1995 she remarked, "The Business History Resource Center at SASS was by far the most 'user friendly' and stimulating environment in which I've worked."

For more information, please write to: Professor Huang Manmin, Director; Resource Center for Chinese Business History, Institute for Economics, SASS, 7/622 Huai Hai Zhong Rd., Shanghai, 200020, China.

Laurie Damiani
Assistant to the Director, East Asia Program

Congratulations

Davydd J. Greenwood, Goldwin Smith Professor of Anthropology, former Director for the Mario Einaudi Center for International Studies and member of the Cornell faculty since 1970, has just been elected to the Real Academia Española de Ciencias Morales y Políticas (Spanish Royal Academy of Moral and Political Sciences) in recognition of his 30 years of research and writing on the anthropology of Spain. Davydd is only the second anthropologist named to the Academy. He served as Director of the Mario Einaudi Center for International Studies from 1983-1993. In 1995, he returned to the Department of Anthropology as Goldwin Smith Professor of Anthropology. Davydd's anthropological work focuses on Spain, particularly on the Spanish Basque Country where he has specialized in the study of the political economy of rural decline, industrial development, ethnic conflict, and the Mondragón cooperatives. He has also published on biological determinist ideologies and on participatory action research, and was recently engaged in a participatory action research project in Spain's La Mancha region. An event honoring Davydd will be organized in April by the Department of Anthropology and IES.



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Spring 1996 edition of the
Institute for European Studies Gazette

"Quebec: Province or Sovereign State?"

The fall referendum on the future status of Quebec brought the province within a hair's breadth of declaring independence from Canada. The majority of Quebecois are francophones (French-speakers), but there are also substantial minorities of anglophones (English-speakers), and allo-phones (speakers of other languages.) The highly diverse demography of the province includes citizens of immigrant descent as well as several native communities. The provincial

government is likely to bring the issue before voters again by 1998. Meanwhile, the vigorous debate continues among linguistic and ethnic groups in both Quebec and elsewhere in Canada. The future of Quebec has other implications as well; the future of the nation-state, sovereignty, nationalism, and ethnic identity in an era of globalization will have a tremendous impact on Canada as a whole.

"Quebec: Province or Sovereign State?"

Friday, February 23
from 1:30 to 5:00pm
in G-08 Uris Hall.

roundtable discussion co-sponsored by
The Institute for European Studies and
The Peace Studies Program

Professor Milton Esman, the John S. Knight Professor Emeritus of International Relations will moderate the discussion. The participants include Gerald Alfred, Concordia University; Pierre Martin, University of Montreal; and Robert Young, University of Western Ontario. Antonia Maioni, McGill University, will

act as respondent. Speakers will present and discuss separatist and federalist points of view. This event, open to the community, will be supported by the Canadian Consulate in Buffalo, NY.

Mark Your Calendars

The Keynote Speech for the
Cornell International Festival

will be given by

Chief Emeka Anyaoku
Secretary-General of the
British Commonwealth.

TIME: 8 pm, April 4, 1996

PLACE: Alumni Auditorium
Kennedy Hall

For more information
please contact
Ibe Ibeike-Jonah
133 Warren Hall
273-3101

Email: mi14@cornell.edu

A Look Behind the Scenes at Southeast Asia Program Publications

In the Southeast Asia Publications Department, two of its veteran employees have long played an integral role in insuring the smooth production and distribution of its books, journals, and papers. Skimming through a large variety of the program's publications, one does not see the behind-the-scenes efforts of Roberta Ludgate and Hazel Prentice, but their collective sixty years of experience have greatly contributed to the program's efforts, enabling SEAP to make contemporary scholarship on Southeast Asia widely available to both academics and general readers.

Roberta will tell you that computers have made her job much easier, but that some aspects of her job have not changed. Speed and accuracy are still vital in type-setting and copy-editing. Listening to her talk about her early years working with the program (She joined the Modern Indonesia Project in 1956 as a Cornell undergraduate.), one realizes that the conditions of her job at that time have trained her to be precise. Carbon paper was an unforgiving medium, and many of the essays she typed required as many as six carbon copies. At this point, white-out had not been invented.

After her stint with the Modern Indonesia project, Roberta freelanced as a manuscript typist and copy-editor for many different people at Cornell and beyond before joining the Southeast Asia Program in the mid 1960s. When no computer software was available in those years to automate manuscript formatting tasks, Mrs. Ludgate was responsible for preparing her assignments in their final form. Today she is a converted and experienced advocate for computerized typing, but will tell you that her most difficult task has been the highly technical 1,200-page economics dissertation she typed in her first attempt with a computer. However, no program can eliminate all of the challenges a type-setter faces, especially when one works for a program which produces books on Southeast Asia. Mrs. Ludgate is often called upon to use her ingenuity in dealing with transliterations from Southeast Asian Languages into English. Vietnamese, for example, bristles with diacritical marks. Confronted by a complicated manuscript about Vietnam, Mrs. Ludgate developed a system using a mathematical formula, thus allowing her to create diacritical marks when none were available in the software.

Hazel oversees all aspects of distribution. She has kept track of where, how, and to whom the program's publications have been distributed over the past twenty-two years. Not only does she manage the Distributions Office at East Hill Plaza, but she is also responsible for packaging and mailing orders for Cornell Modern Indonesia Project and SEAP Publications books, journals, and other printed materials. Mrs. Prentice was recently called upon to help organize the relocation of the distribution facility. The new space at East Hill Plaza accommodates a large warehouse for boxed inventory shared between SEAP, the Mario Einaudi Center for International Studies, and other area studies programs. Hazel carries out her daily operations in an adjoining space where the packaging and mailing centers are located.

Hazel's reach is long; when asked about who places orders to SEAP and CMIP, she replied, "We get orders from everywhere in the world. I don't think there's a country we haven't received an order from. It's amazing." Mrs. Prentice has fielded orders from government agencies, schools, businesses, and even naval medical institutions. She has distributed scholarly books and foreign

language instruction texts -- SEAP best-sellers -- including instruction books in languages such as Indonesian, Thai, Vietnamese, Filipino, and also a White Hmong Dictionary. The use of barcodes, credit cards, and computers are among the most important changes she has witnessed during her tenure.

But Mrs. Prentice is not completely "automated." She continues to handle inquiries personally. Her knowledge and experience make her a quick and reliable source about books produced by the program over the past few decades. Until several months ago, she worked alongside her mother, Lena Garvin, who recently retired from the program at the age of 87.

Both Roberta and Hazel provide interesting views of the history of SEAP Publications and the Cornell Modern Indonesia Project. Their memories, combined with the skills and talents they have acquired in the process reflect a commitment to excellence and caring for the written works produced by Southeast Asian scholars since the 1950s. Their roles have exerted a presence in the materials which reach the hands of SEAP readers.

by Penny Dietrich
edited by Deborah Homsher

International Studies in Planning

During 1995 as in the past, International Studies in Planning (ISP) activities have focused on student and faculty research, conferences and seminars. The 55 international planning students at Cornell represent 25 countries. Support for student planning research in international settings is a key ISP function. ISP travel grants for the 1995-96 academic year were given to 19 graduate students. The awards ranged from \$100 to \$600 for research in Brazil, China, Chile, the Dominican Republic, India, Japan, Kenya, Kyrgyz Republic, Russia, Senegal, South Africa, Sri Lanka and Taiwan. Recipients included Antonio Casal, Hsiao-ching Chen, Deborah Chernin, Angel Cocero, Remileku Cole, Eva Ensmann, Joshua Galper, Kanishika Goonewardena, Takamasa Hayashi, Takeko Iunuma, Benjamin Kohl, Jayati Lal, Pinkie Modisane, Tristi Nichols, Anahita Poonegar, Catherine Quick, John Thomas, Josephine Thompson, and Jason Weisman. The travel grant program for 1996-97 is coordinated by the Einaudi Center, and applications are due March 1.

The ISP Spring Seminar Series got off to an excellent start on January 26 with a lecture by Professor Philip McMichael (Rural Sociology) on "Globalization: Myths and Realities." Susan followed with a discussion of "City as a Dreamworld and Catastroph," and Theodore Bestor analyzed the Tokyo Fish Market. Guest speakers from Africa, the Caribbean, Israel, India, and North America

will address planning and development issues related to economic globalization, economic restructuring, nationalism and social control. The seminar is both a 1-credit graduate course and a forum for faculty and students interested in international urban and development issues. It meets Fridays during the semester at 12:15 p.m. in 115 Tjaden Hall.

mountain town of Itamonte. The seminar, "Environment, Poverty, and Urbanization," included sessions on "excluded" urban people, the 1992 Rio Earth Summit, and neighborhood social movements. Participants exchanged views on research methods and theories of social change. The two-university collaboration is funded by United States



Cornellians who attended the Cornell/Brazil Planning Conference in Itamonte
photo courtesy Bill Goldsmith

As part of a four-year collaboration between ISP and the planning faculty at the Federal University of Rio de Janeiro, a group of Cornell faculty flew to Brazil last June to attend a seminar in the

Information Agency and coordinated by Cornell planning professor William Goldsmith.

Current Cornellians and alumni participating in the Itamonte seminar were

Cornell history professors Mary Roldan and Thomas Holloway; Rachel Carvalho (MRP 1984; Ph.D. 1988), Department of Architecture and Urbanism, Federal University of Rio de Janeiro; Jorge Nogueira, a former visiting professor at Cornell and member of the economics department, University of Brasilia; Linda Gondim (Ph.D. 1986), sociology department, Federal University of Ceara; Lucia C. Cidade (Ph.D. 1987), geography department, University of Brasilia; and Johanna Looye (Ph.D. 1994), planning professor, University of Cincinnati. Plans are underway for Brazilian visits to Ithaca and a second seminar in Brazil in August 1996.

Visiting ISP faculty in 1995-96 include Smitu Kothari, currently residing in the South Asia Program, and Barbara Lynch. Dr. Kothari, editor of the Lokayan Bulletin an expert on social movements in South Asia, is teaching a course on Struggles for Justice, Equality and Democracy in the Third World. Professor Lynch's courses include Environmental Dimensions of International Planning and Third World Urbanization. Lynch is coordinating the ISP Seminar Series. Her research focuses on environmental movements in the Spanish Caribbean.

by Barbara D. Lynch

International Legal Studies

Foreign Visiting Faculty

Yvonne M. Cripps (Fall 1995), Lecturer in Law, University of Cambridge; Fellow, Tutor and Director of Studies in Law, Emmanuel College, Cambridge Legal Advisor to the Royal Commission on Environmental Pollution (UK); Member of the Biotechnology Commission of the Stockholm Environmental Institute (255-1348). **Subjects:** Comparative Constitutional and Administrative Law; Law Science and Technology (including comparative intellectual property law and legal aspects of biotechnology.)

Herbert Hausmaninger (Spring 1996), Professor and former Dean, Universitat Wien, Vienna, Austria. **Subjects:** Roman Law, Russian Law, Comparative Law.

Muna B. Ndulo (Spring 1996), Legal Officer, Office of Legal Affairs, United Nations Commission on International Trade Law, Senior Political Advisor to the Special Representative of the Secretary General for South Africa (October 1992 - June 1994), former Dean of University of Zambia School of Law. **Subjects:** Protection of Investments in Developing Countries, Mining Law, Human Rights and Africa Customary Law.

Hiroshi Oda (Fall 1995), Sir Ernest Sastrow Professor of Japanese Law, University of London (255-1032). **Subject:** Modern Japanese Business Law.

Bernard A. Rudden (Fall 1995), Professor of Comparative Law, Fellow, Brasenose College, Oxford (255-2330). **Subjects:** Comparative Law, European Community Law, Property.

Sief Van Erp (Fall 1995), Associate Professor, Tilburg University, Deputy Judge, District Court of Amsterdam (255-1020). **Subjects:** International Commercial Law, European Private Law.

Michele Taruffo (Fall 1995), Professor, University of Pavia. **Subjects:** Civil Procedure, Comparative Law, Evidence, Legal Theory, Legal History.

Visiting Scholars

Desmond Derrington, Judge, Supreme Court, Brisbane, Queensland, Australia. 255-2330

Chang-Hoon Lee, Judge, Wonjoo Branch Court, Kangwon Province, Korea. 255-1245

Gerard Luf, Professor of Law, University of Vienna, Austria. 255-5889

Sam Regege, Senior Lecturer and Deputy Dean, Faculty of Law, National University of Lesotho, Uganda. 255-3660.

1995- 1996 Hubert H. Humphrey Program Fellows Cornell University



**Gene Osmund
EVELYN**
Guyana

Senior Economic Consultant, Caribbean Engineering and Management Consultants, Ltd. (CEMCO)

M.Sc., Development Studies
University of the West Indies
Jamaica, West Indies

Responsible for project preparation; design and coordination of economic research activities; macroeconomic and sectoral analyses.

**Dickxie Verson
KAMPANI**
Malawi

Operations Manager, Evangelical Alliance for Relief and Development

M.Sc., Agricultural Economics,
University of Saskatchewan Canada

Manages operations, and responsible for program coordination, strategic planning, implementation, staff development and advisory service on agricultural finance.



**Llazar
KORRA**
Albania

Director, Agricultural Program Office, Ministry of Agriculture and Food

M.S., Agronomy Agricultural University
Tirana, Albania

Responsible for policy coordination and monitoring of program performance; coordination of all foreign assistance programs.



**Malgorzata Anna
KOSIARSKA**
Poland

Specialist, Ministry of Agriculture

M.S., Horticulture
The Warsaw Agriculture University, Poland

Responsible for bilateral relations between Poland and U.S.A.; coordination of international aid funds in agriculture, and pre-evaluation of projects for future implementation; preparation of Ministerial papers, arranging meetings and Ministerial briefings abroad.



**Aleksandr
FELTSANT**
Uzbekistan

Assistant to the Director for Foreign Relations, Institute of Soil Science and Agrochemistry

Ph.D., Biology
Institute of Soil Science and Agrochemistry
Tashkent, Uzbekistan

Develops contacts with related foreign institutions and individual scientists in the field of agricultural and soil sciences; maintains joint projects; devises optimal land schemes.



**Lakeita
HENRIQUES**
Jamaica

Senior Management Analyst, Cabinet Office, Office of the Prime Minister

Post Graduate Diploma, Management Studies
University of the West Indies
Jamaica, West Indies

Develops, implements and maintains job evaluation standards, performance appraisal systems and other service standards for the Public Service. Advises on the development and use of corporate plans, organizational and job restructuring and design.

**Anthony John
MELI**
Malta

Professional Officer, Department of Agriculture

M.Phil., Rural Development/Land Use, University of Dundee, Scotland



Seconded from the Ministry for Food, Agriculture and Fisheries to the Institute of Agriculture, University of Malta officiating as Director's Assistant, Diploma Course Coordinator and lecturer in Agribusiness and Crop Science.

Hubert H. Humphrey Fellowship Program 1995-96

The Hubert H. Humphrey Fellowship Program was established in 1978 in honor of the late Senator and Vice President to commemorate and carry forward Hubert Humphrey's lifelong commitment to international cooperation and public service. It provides professionals from developing countries an opportunity to enhance their leadership potential and managerial skills. The specialized non-degree programs designed for Humphrey Fellows at selected universities are intended to strengthen and develop the Fellows' capacities to assume greater professional responsibilities, to give them an opportunity to broaden their perspectives, and to establish international professional contacts.

This is the sixteenth year that Cornell University has participated in this prestigious program. This year, nine Fellows have been admitted through the Cornell Graduate School as non-degree candidates in the field of International Agriculture and Rural Development. The program is administered by the International Agriculture Program in the College of Agriculture and Life Sciences.

Humphrey Fellows are mid-career professionals with a commitment to public service in both public and private sectors. Minimum qualifications include an undergraduate degree, substantive professional experience, demonstrated leadership qualities, and fluency in English.

Fellows studying at Cornell are able to shape a personally relevant program of investigation and learning based on a combination of course work, independent projects, internships, field trips, special seminars, and consultations with faculty and off-campus experts in their field.

Faculty are encouraged to use this excellent source of expertise. Fellows, may engage with the Cornell community, for example, as they present seminars or papers, assist in the development of conferences or act as consultants.

The Humphrey program offers all of its participants the distinct privilege of learning and growing through cultural exchange.

**Mounir
LOUHAICHI**
Tunisia

Deputy Regional Director and Coordinator Officer, Livestock and Pasture Bureau, Ministry of Agriculture

B.S., Range Management
Oregon State University, U.S.A.

Supervises and coordinates technical activities developed by the Bureau; elaborates strategies and action programs at the regional level; provides diagnostic and technical leadership on pastoral perimeter ecology.



**Amar Bahadur
MANANDHAR**
Nepal

Deputy Director, Department of Industries

M.Eng., Industrial Engineering and Management
Asian Institute of Technology,

Bangkok, Thailand

Responsible for techno-economic appraisals of industrial projects; evaluation of foreign joint investment and technology transfer agreements; assists in the formulation and implementation of industrial policy and foreign investment and technology transfer policy.



Peace Studies Program Funding Opportunities for 1996-97

Regular Cornell faculty members and research associates: The program's grant from the John D. and Catherine T. MacArthur Foundation makes it possible for the program to award small grants to faculty to support interesting and relevant work in peace studies, stimulate new interactions between faculty members, and encourage long-term interest in the field of peace studies. Applications for a small grant should include a proposal, curriculum vitae, and a budget and should be submitted to the Peace Stud-

ies Program office at 130 Uris Hall, by March 29, 1996 in order to be considered for funding during 1996-97.

Graduate students at the thesis writing stage: The program is able to award six fellowships (stipend and tuition) for 1996-97. Four of these are made possible from the program's MacArthur Foundation grant that supports research and training in technology and security. These four fellowships are available to students in any field whose thesis falls within the scope of the project. Two other fellowships will sup-

port students with peace studies-relevant work that lies outside the MacArthur grant focus. Students in Mellon-funded fields, however, are not eligible for these two fellowships. Applications are due by March 15, 1996 for funding in the 1996-97 year.

Undergrads: Graduating seniors are invited to apply for the Harrop and Ruth Freeman Prize in Peace Studies. The value of the prize this year is \$1,200. The Freemans were active in the peace movement for many years. They established this prize to offer recognition and

encouragement to Cornell students actively engaged in promoting peace both within the community and nationally. The application form requires a brief statement and a letter of recommendation from a faculty member. Pick up an application at 130 Uris Hall. The application deadline is March 15, 1996.

Stop by the Peace Studies Program in 130 Uris Hall for more information about these opportunities.

The Poet and Her Island

On February 16 the Institute for European Studies sponsored the visit of Katerina Anghelaki-Rooke to Cornell University. Ms. Anghelaki-Rooke is President of the European Council for the Preservation of Poetry. She is Greece's foremost woman poet. Her poems have been translated in all major European languages.

While at Cornell, Ms. Anghelaki-Rooke presented a talk entitled *European Poetry Today: The Problem of Big and Small Languages* at noon in Uris Hall. She also gave a poetry reading that evening at the A. D. White House.

Gail Holst-Warhaft (Comparative Literature, Classics) has had the pleasure of knowing Ms. Anghelaki-Rooke for many years. As the translator of many of her poems, Holst-Warhaft has had the additional opportunity to gain further insight into Ms. Anghelaki-Rooke's writing. The following essay was contributed to the Institute by Holst-Warhaft.

The Poet and Her Island: Katerina Anghelaki-Rooke

Nikos Kazantzakis, in his *Odyssey*, gave his hero three godfathers: Prometheus, Tantalos and Heracles. Their gifts to the infant Odysseus were a humane but unsatiated heart, and a mind always longing to perform the thirteenth labor. To his goddaughter, Katerina, Kazantzakis may have passed on some of his own questing, indomitable spirit, and his passionate love of life that spills from his page as he grappled with death and despair. But there are drawbacks to being the goddaughter of a legendary writer, especially if you have ambitions to write yourself. Kazantzakis belonged to a generation of extraordinary Greek writers, two of whom would later win the Nobel Prize for literature. Apart from Cavafy, who lived in another country all his life, the

names most people associate with modern Greek poetry are Seferis, Elytis, Ritsos, and Kazantzakis himself.

These men, all of whom began publishing their work before the second World War, towered over the young poets of Anghelaki-Rooke's generations like giants. It is still true to say that the majority of the poets of her generation are unknown in America, but Anghelaki-Rooke is an exception. She has never been a prolific writer—a small volume of verse every year or two, but the quality of her work attracted the attention of Greek and foreign readers. Slowly, her work began to be translated into foreign languages. There were invitations to read in the United States, Israel, and Mexico. But it was only last year, with her election to the position of President of the European Council for the Promotion of Poetry (a position held by Seamus Heaney and Miroslav Holub before her) that Anghelaki-Rooke could be said to have become an international celebrity.

For those who have followed her career and watched the development of her poetry, the recognition of Anghelaki-Rooke as one of the leading poets of Europe is a confirmation of the powerful effect her poetry has always conveyed, both in Greek and in translation. It is also a recognition of her extraordinary ability to pass effortlessly from one culture to another, reading, writing and conversing with wit and subtlety in Russian, French, and English. She is the only person I can imagine even *trying* to translate *Under Milkwood*, let alone succeeding. Greek, like Czech or Danish, is one of the small languages of Europe. The Greek intelligentsia have always been forced to learn at least one other language to even acquire a good education. Anghelaki-Rooke studied foreign languages and literature at the Univer-

sity of Nice, Athens and Geneva. She was awarded the First Prize for Poetry by the City of Geneva. Literary translation has always provided her with half her income. The other half has come from a pistachio orchard on the island of Aegina, where she lives for about half the year. There, in the old red house that her father built, when he and Kazantzakis were neighbors and friends, Katerina holds court each summer.

Everyone interested in Greek poetry and most of Greece's contemporary poets, and hundreds of artists and friends have visited and stayed in the red house. It is such an institution that it and its owner are given a special section in a recent guidebook to Greece. There, drinking retsina under the carob tree and looking out over a field of scraggly pistachio trees towards the sea and the mountains of the Peloponnese, Katerina talks, laughs and charms her guests. Her personality is so vivacious, her laughter so infectious, that it is a surprise, for many of her guests, to read her poems of despair and loss. Perhaps only a poet with such a gift for life could write so poignantly of its loss. After thirty years of friendship I have always been in awe of Anghelaki-Rooke's gifts, her penetrating intelligence, her shafts of wit, aimed unerringly at enemy or friend. It was with great trepidation that I began to translate her poems. They present few formal challenges to the translator, being neither rhymed nor metrically rhythmic; their challenge lies in the poet's use of the rich resources of Greek, a fluidity of word-order, and a flamboyant tone alternating with prosaic dryness that is easy to destroy in English translation.



Katerina Anghelaki-Rooke

photo courtesy of IES

The sequence of poems she wrote during the Gulf War illustrate well the swift changes of tone and mood in Anghelaki-Rooke's work as she moves from the memory of *eros* to the stark present of *thanatos*. The translations appeared in *Modern Poetry in Translation* no. 6, 1994/05. They are from her recent collection *Empty Nature*. The following is an example of Ms. Anghelaki-Rooke's recent work, as translated by Gail Holst-Warhaft.

16th Day
or the End of the Person

I went to sleep
with my head full
of the smoke of scorched earth,
while unseen pincers
squeezed my heart.
And there, where every evening
I imagine my end as a person, just
as others say
their prayers,
I found that the war has left me
a present on my pillow:
the meaninglessness of my death.

by Karen Leska and
Gail Holst-Warhaft

Kayastha Named to Stern Curatorship for Asia Collections

Mr. and Mrs. Jon A. Lindseth and other members of the Cornell University Class of 1956 have established a Library endowment supporting a curator's position in the Library's Asia Collection. The Asia curatorship, the first of its kind in the country, is named in honor of Ernest L. Stern '56. Alain Seznec, the Carl A. Kroch Cornell University Librarian, is pleased to announce that the first curator named to the Ernest L. Stern '56 Library Curatorship for Asia Collections is Ved P. Kayastha, current curator of the South Asia Collection.

With material from India, Pakistan, Sri Lanka, Bangladesh, Nepal, and the Himalayan state of Bhutan, the South Asia collection is now the fourth largest in the United States. It is also one of the few fully catalogued collections in the vernacular languages. These features make it one of the easiest to use in the United States.

Mr. Kayastha was born in Kangra, India. He earned a bachelor's degree in 1956 and two master's degrees, one in geography and one in library science in 1958 and '59 from Banaras Hindu University. He also received a master's in Library Science from Syracuse University. From there he went on to serve as librarian of the John G. White Oriental Collection at the Cleveland Public Library.



Ved Kayastha and Shelley Feldman at the January 30th Reception

photo courtesy of SAP Program

Mr. Kayastha has thirty years of distinguished service to Cornell's South Asia Collection. He came to Cornell as the cataloguer of the Library's South Asia material in 1966.

In 1978 he was named South Asia Librarian. He took on increasing responsibility for collection development, and in 1984 he moved to the full time position of South Asia Collection Developer.

He has also just been appointed as adjunct faculty to the Asian American Studies Program at Cornell, and is active with national and international professional organizations.

Members of Cornell's Asian studies faculty prize Ved Kayastha as an invaluable resource to those working in the field of South Asia studies. Visiting scholars and faculty have frequently

commented on his uncanny and reliable ability to locate even the most obscure references. Also legendary is his involvement with the student community. For many years he has been the advisor to the Indian Students Association. His personal contact with students has made him a sought after reference for graduate school applicants. Mr. Kayastha has also acted as liaison for faculty and students who need an introduction into the Asian community in Ithaca as well as in India.

Not only is he a gifted librarian, but Mr. Kayastha seems a natural in public relations. He always takes a list of names of alumni or friends of the Cornell Library to call when traveling to India or the U.S. He is married to Dr. Veena Kayastha, a practicing psychiatrist. His son Sanjiv Kayastha graduated from Cornell's College of Arts and Sciences in 1994 and is studying medicine at SUNY Buffalo. There is an endowment fund in the South Asia Collection in memory of the Kayasthas' son Rajiv.

Press Release from Vally Kovary,
Director of Library Public Affairs

Technology may milk recovery of energy costs

By Blaine P. Friedlander Jr.

Forever looking to save money, dairy farmers soon may be able to pocket up to half the energy cost of milking cows thanks to new technology developed by Cornell agricultural engineers that provides energy-efficient ways to control vacuum levels on milking machines.

"Typically, the milking vacuum pump is oversized to accommodate any interrupted air flow, such as when milking units fall off a cow's udder," said David Ludington, professor of agricultural and biological engineering. Because those pumps generally operate at full speed and maximum capacity – regardless of needs – dairy farmers are forced to spend money on extra energy.

Agricultural engineers at the Cornell Agricultural Energy Program (CAEP), in conjunction with Jon Merrell of Merrell Farms, developed this new component for controlling the milking system vacuum using electronic feedback control and variable frequency drive technology. It is being tested and demonstrated on two dairy farms in New York (Autumn Ridge and Merrell Farms) and two dairy farms in Hawaii (Mountain View Dairy and Evergreen Hillside Dairy). The project was funded by New York State Electric & Gas Corp., Niagara Mohawk Power Corp., Rochester Gas & Electric Corp., the New York State Energy Research and Development Authority, Hawaiian Electric Co., Electric Power Research Institute and the Hawaiian Department of Agriculture.

Substantial savings for dairy farmers are possible because controls that use direct feedback from the vacuum milking system are linked to a variable frequency drive (VFD) on the pump motor. This type of drive, also referred to as an adjustable speed drive or a variable speed drive, must have proportional-integral (PI) capabilities, Ludington said.

In the new system, the capacity of the vacuum is set to match the actual air flow needs of the milking system. The conventional vacuum controller is set at a vacuum level slightly above the milking vacuum.

In this system, the voltage developed by the vacuum transducer, which varies according to the milking vacuum level, is transmitted to the VFD. During milking, if the vacuum level decreases from, for example, 14 inches of mercury to 13.8 inches due to more air entering the milking system, the voltage will decrease slightly. As the change in voltage is interpreted by the VFD, the speed of the vacuum pump is increased to compensate for the increase in air flow. Thus, the vacuum level is returned to 14 inches of mercury. When the vacuum level increases, the pump motor speed is reduced, which allows the vacuum pump to match the actual air flow needs of the milking system.

At test farms, five vacuum pumps ranging in sizes from 5 to 20 horsepower are being controlled by VFD-PI technology. "The stability of the milking vacuum is equal to or better than that achieved by conventional controllers," Ludington said. Also, the vacuum pump noise is significantly reduced. "At the same time, the energy saved is at least 50 percent, sometimes as much as 70 percent. During milking, the electrical demand is also reduced."

Ludington said that two of the farms are using VFD-PI control for both milking and washing, while the other two farms are using VFD-PI control for milking and a preset vacuum pump speed for washing.

The economics of the VFD-PI control system depend on several elements. "The two major factors are the hours the vacuum pump operates per day and the capacity of the vacuum pump compared to the actual air needed for milking," Ludington said. "The investment payback from energy savings alone is expected to be under four years, with eight hours of operation a day. Operating this system for 18 hours a day, the payback could be within a year."

Belting it out



Charles Harrington/University Photography
Members of the Black Celestial Choral Ensemble from Syracuse rehearse Feb. 17 for their performance later that evening at Bailey Hall as part of the weekend's Festival of Black Gospel. An enthusiastic crowd attended the Saturday night show, which also featured performances by the 200-member Mass Choir, with singers from around upstate New York, organized by James Hall, director of the Worship and Praise choir from Brooklyn.

Avoiding 'Sexual Jeopardy' is contest's real goal

By Akil Salim Roper '97

Much to the chagrin of contestant Paul Coleman '98, the name of the 1969 event often recognized as the beginning of the Gay Rights movement was not "Woodstock."

The correct answer, "Stonewall," was one of many revealed during a night of "Sexual Jeopardy," an educational game on Feb. 12 at Noyes Center, sponsored by peer educators from the Sexuality and AIDS Facts, Education and Responsibility (SAFER) program.

During the contest, which was based on the popular television game show "Jeopardy," three student contestants were given a range of questions over three rounds – including double and final Jeopardy – with the aim of promoting sexual education and awareness. Whenever none of the contestants could come up with a correct answer, the question was given to the audience. The prize for each correct answer was a latex condom.

The questions – asked and answered in "Jeopardy"-style, such as: "This injectable hormone prevents pregnancy for three months." (Answer: What is Depo-Provera?) – were given to game participants and the audience by the SAFER program's version of Alex Trebek, peer educator Shadia Merukeb '96.

Some of the question categories included: Sex at Cornell, The '90s, Birth Control, Rape and Assault, and Anatomy. The night's activities also included a "Did you know?" list of facts about sexuality, STDs and contraception. This segment was presented in between the first two rounds of the game. Some of the facts were eye-openers for the audience, for example: "Did you know that in 1995, HIV-related deaths surpassed automobile accidents as the leading killer of young adults?"

"We wanted to have a fun activity for Sexual Health Awareness Week that was also educational," said Nina Cummings, SAFER coordinator/supervisor and health educator in Cornell's Department of Health Services. "The SAFER peer educators, who presently total about 25, planned and organized the entire event."

"We felt that this was the best format for giving this type of information," said Anne Dudley '96, a SAFER peer educator. "Even



Adriana Rovers/University Photography
Shadia Merukeb '96, peer educator with the SAFER program, plays the role of moderator Alex Trebek in a game of "Sexual Jeopardy" at Noyes Center, Feb. 12, during Sexual Health Awareness Week.

if only one or two questions get through to them, these are the facts young people need."

SAFER was designed to help educate students on sex and sexual-health issues, such as AIDS/HIV, intimacy, dating and relationships. Peer educators have a semester-long training period and give an additional two-semester commitment to the program.

"It's very important to increase people's general knowledge about sexuality," said Deborah Huret '96, SAFER peer educator. "(The game will) help dispel some of the myths and incorrect information associated with sex that get spread primarily by word of mouth," she said.

Although the turn-out for the game was small – about 25 people attended – there was much audience participation. Prizes, such as a T-shirt from Johnny's Big Red, a gift certificate for Ruloff's and a CD from Discount Records, were given to the contestants.

"I enjoyed the event, even though there is still a lot I don't know," said the game's winner, Ben Sacks '98. "More people need to learn about these topics because the problems we have are only getting bigger."

For more information on becoming a SAFER peer educator, call the Department of Health Service's health education office at 255-4782.

Breast Health Workshop

Another Sexual Health Awareness Week activity on campus Feb. 13 was a Breast Health Workshop at Kennedy Hall attended by more than 400 people.

The workshop, sponsored by the Gannett Health Center's Contraceptive, Gynecology and Sexuality Services (CGSS) and Glamour/Hanes Hosiery Hand in Hand, a national breast-health education program, was aimed at educating women about the seriousness of breast cancer and the ways in which they can reduce their own risk factors for the disease. The workshop featured a video address from Hillary Rodham Clinton, as well as several lecturers, including: Linda Gordon, Hand in Hand's communications specialist; Dr. Phillip Harris, a local surgeon; Dr. Gwendolyn Boyd, the medical director of CGSS; and Dr. Saralyn Mark, medical adviser for the U.S. Office on Women's Health, the workshop's keynote speaker.

CALENDAR

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South Asia Association for Political and Academic Awareness

"Projections of Authenticity," a video/lecture by poet Ian Iqbal Rashid, Feb. 22, 5:30 p.m., Uris Auditorium.

Southeast Asia Program

"Regionalism: Its Rise and Its Limits," John Bresnan, Columbia University, Feb. 22, 12:15 p.m., Kahin Center, 640 Stewart Ave.

"The Cambodian Genocide Program at Yale," Ben Kiernan, Yale University, Feb. 29, 12:15 p.m., Kahin Center, 640 Stewart Ave.

MUSIC

Music Department

• Feb. 23, 8:15 p.m., Barnes Hall: Judith Kellock will present a program of 20th-century works, including the world premiere of a piece by David Glaser. Featured works will be *Remembrance* by Robert Sirota; *Frauentanz* by Kurt Weill; *Three Marian Eulogies* by Daniel Godfrey; Glaser's *Closely by the Sky*; and Luciano Berio's *Folksongs*.

• Feb. 29, 8:15 p.m., Barnes Hall: Student recital: Bob Milnikel, clarinet.

Bailey Hall Concert Series

The Moscow Virtuosi, with Vladimir Spivakov as conductor and violinist, will perform Feb. 24 at 8:15 p.m. in Bailey Hall. Featured works include the String Sextet from the opera *Capriccio* by Richard Strauss, Mozart's *Piano Concerto in E-flat, K. 271*, and two works by Bela Bartok: the *Rhapsody No. 1* for violin and orchestra and the *Divertimento for Strings*. For ticket information, call the Lincoln Hall box office between 9 a.m. and 1 p.m. at 255-5144.

Cornell Folk Song Club

The Cornell Folk Song Club will present Australian topical songwriter Judy Small on Feb. 24 at 8 p.m. in Kaufmann Auditorium, Goldwin Smith Hall. Tickets are \$8 at Repop Records, Borealis Books and at the door. Info: 273-2132.

Bound for Glory

Feb. 25: Contemporary acoustic singer-songwriter Maria Sangiolo will perform in three live sets at 8:30, 9:30 and 10:30 p.m. Admission in the live audience at the Cafe at Anabel Taylor Hall is free and is open to the public. Kids are welcome. For further information, call Phil Shapiro at 844-4535. Bound for Glory is broadcast Sundays on WVBR-FM, 93.5 and 105.5 from 8 to 11 p.m.

readings

Creative Writing Program

Richard Price '71 will give a reading on Friday, Feb. 23, at 8 p.m. in Kaufmann Auditorium, Goldwin Smith Hall. Price is the author of five novels, including *Clockers*, which was nominated for the National Book Critics Circle Award and adapted to the screen in collaboration with Spike Lee. His other novels include *The Wanderers*, *Blood Brothers* and *Ladies Man*, and his screenplays include *Sea of Love*, *Kiss of Death* and *The Color of Money*, for which he received an Oscar nomination. A book-signing and reception will follow his reading, and Price will introduce the film, *Clockers*, at 10 p.m. in Willard Straight Theatre.

religion

Sage Chapel

Bishop Matthew Clark of the Roman Catholic Diocese of Rochester will give the sermon Feb. 25 at 11 a.m. in Sage Chapel.

African-American

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

Baha'i Faith

Fridays, 7 p.m., firesides with speakers, open discussion and refreshments. Meet at the Balch Archway, held in Unit 4 lounge at Balch Hall. Sunday morning prayers and breakfast, 7 a.m.

Catholic

Weekend Masses: Saturday, 5 p.m.; Sunday, 10 a.m., noon and 5 p.m., Anabel Taylor Auditorium.



Charles Harrington/University Photography

H. Thomas Hickerson, left, director of the Division of Rare and Manuscript Collections, and Alain Seznec, the Carl A. Kroch University Librarian, attend a reception Feb. 15 in the Kroch Library for the opening of an exhibition of the work in wood of Elfriede Abbe '40. The exhibition features Abbe's private press books, wood block prints and wood sculpture from 1950 to 1994, including "Ptolemy" in the photo above. The work is on view through March 27 in 2B Kroch Library.

rium. Daily Masses: Monday-Friday, 12:20 p.m., Anabel Taylor Chapel. Sacrament of Reconciliation, Saturday, 3:30 p.m., G-22 Anabel Taylor Hall.

Christian Science

Testimony meetings sharing healing through prayer and discussion every Thursday at 7 p.m., Founders Room, Anabel Taylor Hall. For more information see <<http://www.msc.cornell.edu/~bretz/cso.html>>.

Episcopal (Anglican)

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

Friends (Quakers)

Sundays, 11 a.m., meeting for worship in the Edwards Room of Anabel Taylor Hall. Discussions most weeks at 9:50 a.m., 314 Anabel Taylor Hall.

Jewish

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

Friday Services: Conservative, 5:30 p.m., Founders Room, Anabel Taylor Hall; Reform, 5:30 p.m., ATH Chapel; Orthodox, Young Israel, call for time, 272-5810.

Saturday Services: Orthodox, 9:15 a.m., One World Room, ATH; Egalitarian Minyan, 9:45 a.m., Founders Room, ATH.

Korean Church

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

Latter-day Saints (Mormon)

Sunday services: Cornell Student Branch, 9 a.m., Ithaca ward, 1 p.m. For directions or transportation, call 272-4520, 257-6835 or 257-1334.

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.

Orthodox

Sundays, Matins at 8:45 a.m., Divine Liturgy at 10 a.m., St. Catherine Greek Orthodox Church, 120 W. Seneca St., 273-2767.

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

Tuesdays, 5 p.m.; Thursdays, 6:45 p.m., chapel, Anabel Taylor Hall.

seminars

African Development, Institute for

"Interaction of Energy, Agriculture and the Environment: Focus on Kenya," Fridah Mugo, graduate student, natural resources, Feb. 26, 12:15 p.m., 208 W. Sibley Hall.

Agricultural & Biological Engineering

"Supermaterials From Spider Webs: Biotechnology and Bioengineering - Challenges in the 21st Century," Lynn Jelinski, director, New York State Center for Advanced Technology in Biotechnology, Feb. 27, 4 p.m., 400 Riley-Robb Hall.

Agricultural, Resource & Managerial Economics

"Toward an East Asian Model of Economic Development," Yujiro Hayami, visiting T.H. Lee Professor, Feb. 23, 1 p.m., 401 Warren Hall.

Animal Science

"Adaptation of the Cornell Net Carbohydrate and Protein Model for Tropical Settings," Marti Traxler, graduate student, Feb. 27, 12:20 p.m., 348 Morrison Hall.

Anthropology

"Honest Bandits' and 'Warped People': Russian Narratives About Money, Corruption and Moral Decay," Nancy Ries, Colgate University, Feb. 23, 3:30 p.m., 215 McGraw Hall.

Applied Mathematics

"Robust Image Transforms for Wireless Communications," Sheila Hemami, electrical engineering, Feb. 23, 3 p.m., 310 Rhodes Hall.

Astronomy & Space Sciences

"The Mass of the Galaxy," Christopher Kochanek, Harvard University, Feb. 22, 4:30 p.m., 105 Space Sciences Building.

Biochemistry

"Effects of Transmembrane Peptides on Membrane Lipid Organization: Importance of Hydrophobic Mismatch and Role of Interfacially Localized Tryptophan Residues," Antoinette Killian, Utrecht University, Feb. 23, 4 p.m., large seminar room, Biotechnology Building.

Biogeochemistry

"The Historical Impact of Agriculture on Global Trace Gas Fluxes," Philip Robertson, Michigan

State University, Feb. 23, 4 p.m., A106 Corson Hall.

Biophysics

"Receptor Clustering as a Cellular Stimulus. The Mast Cell Case," Reinhard Schwitzer-Stenner, University of Bremen, Feb. 28, 4:30 p.m., 700 Clark Hall.

Bronfenbrenner Life Course Center

"Macro-Economic and Political Changes: Implications for Individuals and Families," Barbara Wejnert, Eastern European Academic Program, Feb. 27, noon, NG27 Martha Van Rensselaer Hall.

Chemical Engineering

"Brownian Dynamic Simulations of Polymer Rheology: Local and Non-Local Problems," Eric Shaqfeh, Stanford University, Feb. 27, 3:45 p.m., 165 Olin Hall.

Chemistry

"Generating and Exploiting Intermolecular Cross-Peaks in Solution NMR: How Everything They Told You in Orgo Can Be Wrong," Warren Warren, Princeton University, Feb. 22, 11:15 a.m., 119 Baker.

"Diversity in the Search for Medicinal Agents," Michael Goetz, Merck and Co. Inc., Feb. 26, 4:40 p.m., 119 Baker.

"Adventures in Materials Synthesis: From Lasers to Models for Stardust," James Burlitch, chemistry, Feb. 29, 11:15 a.m., 119 Baker.

City & Regional Planning

"Economic Integration in Sub-Saharan Africa," Muna Ndulo, University of Zambia, Feb. 23, 12:15 p.m., 115 Tjaden Hall.

Ecology & Systematics

"Sunfleck Utilization and Carbon Gain in Understories and Canopies: From Experiments to Models," Robert Percy, University of California at Davis, Feb. 28, 4 p.m., A106 Corson Hall.

Electrical Engineering

"Neural Network Positioning and Classification of Handwritten Characters," Alexander Shustorovich, Eastman Kodak, Feb. 27, 4:30 p.m., 219 Phillips Hall.

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CALENDAR

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Environment, Center for the
 "Reauthorizing the Endangered Species Act: A Democratic View," Maurice Hinchey, U.S. House of Representatives, D-26th District, Feb. 22, 1 p.m., G10 Biotechnology Building.

Floriculture & Ornamental Horticulture
 "Greenhouse Vegetable Production," A.J. Both, floriculture & ornamental horticulture, Feb. 26, 12:20 p.m., 404 Plant Sciences Building.

Food Science
 "The Mechanism of Protein-Polyphenol Haze Formation in Beverages," Karl Siebert, food science & technology, Geneva, Feb. 27, 4:15 p.m., 204 Stocking Hall.

Fruit & Vegetable Science
 "Early Season Patterns of Fruit Growth and Gas Exchange and the Response of Fruit and Shoot Growth to Shading and Shoot Orientation in 'Empire' Apples," Martin Bepete, fruit & vegetable science, Feb. 22, 4 p.m., 404 Plant Sciences Building.
 "Cornell and the Vegetable Industry in the Year 2096," Robert Sweet, professor emeritus, Feb. 29, 4 p.m., 404 Plant Sciences Building.

Genetics & Development
 "GAGA . . . the Opening Act for RNA Polymerase II Transcription," Christopher Wilkins, Feb. 28, 12:20 p.m., small seminar room, Biotechnology Building.

Geological Sciences
 "Quaternary Paleohydrology of the Bolivian Altiplano—A Study in Progress," Paul Baker, Duke University, and Geoff Seltzer, Syracuse University, Feb. 27, 4:30 p.m., 1120 Snee Hall.

Latin American Studies Program
 "A Critical Assessment of Modernization Theory in Latin America," Enrique Peruzzotti, Universidad Torcuato Di Tella, Argentina, and visiting fellow, Feb. 27, 12:15 p.m., 153 Uris Hall.

Materials Science & Engineering
 "Processing of Nanocrystalline and Nanoporous Materials," Jackie Ying, MIT, Feb. 22, 4:30 p.m., 140 Bard Hall.

Microbiology
 "The Biology of Bovine Viral Diarrhea Virus," Ruben Donis, University of Nebraska, Feb. 23, 12:15 p.m., Boyce Thompson Auditorium.

Natural Resources
 "Spatial and Temporal Aspects of Fish Energetics," Daniel Boisclair, University of Montreal, Feb. 22, 3:30 p.m., 304 Fernow Hall.
 Cornell-Penn State-Virginia Tech natural resources sustainability video-conference seminar, "Sustain What? Fish, Wildlife and . . .," Robert Giles, Virginia Tech, Feb. 29, 1:30 p.m., 224 Malott Hall.
 "Determining Characteristic Stressor Scale for Ecosystem Monitoring and Fisheries Assessment," Scott Findlay, University of Ottawa, Feb. 29, 3:30 p.m., 304 Fernow Hall.

Neurobiology & Behavior
 "Pretending to Be Prey: Sensory Traps and the Evolution of Courtship in Water Milnes," Heather Proctor, Queens University, Kingston, Ontario, Feb. 22, 12:30 p.m., A106 Corson Hall.

Operations Research & Industrial Engineering
 "Entrepreneurship as a Contact Sport," Donald Spero of Spero Quality Strategies, Feb. 22, 4:30 p.m., 155 Olin Hall.

Ornithology
 "Sex and Infidelity in the Great Reed Warbler," Dennis Hasselquist, Lund University, Sweden, Feb. 26, 7:30 p.m., Fuertes Room, Lab of Ornithology, 159 Sapsucker Woods Road.

Peace Studies
 "Nuclear Proliferation Today: The Shadow (NBT, CTBT . . .) and the Substance," Benoit Morel, Carnegie-Mellon University, Feb. 22, 12:15 p.m., G-08 Uris Hall.

Physiology & Anatomy
 "Genetic Analysis of Canine X-Linked Severe Combined Immunodeficiency," Paula Henthron, University of Pennsylvania, Feb. 27, 4 p.m., LH III Vet Research Tower.

Plant Biology
 "The Cryptochrome Family of Plant Blue-Light Photoreceptors," Anthony Cashmore, University of Pennsylvania, Feb. 23, 11:15 a.m., 404 Plant Sciences Building.

Plant Breeding
 "Molecular Mapping of Tomato Centromeres," Amy Frary, plant breeding, Feb. 27, 12:20 p.m., 135 Emerson Hall.

Plant Pathology
 "Results of SARE Organic Viticulture Project,"

Bob Pool, horticultural sciences, Geneva, Feb. 27, 3 p.m., A133 Barton Laboratory, Geneva.
 "Homologous Genes Control Development in Yeast and *Aspergillus*," William Timberlake, Myco Pharmaceuticals Inc., Cambridge, Mass., Feb. 28, 12:20 p.m., 404 Plant Science Building.

Psychology
 "Commitment in Exchange Relations: Test of a Theory of Relational Cohesion," Edward Lawler, industrial & labor relations, Feb. 23, 3:30 p.m., 202 Uris Hall.

Science & Technology Studies
 "The Golemization of Relativity," David Mermin, Cornell, Feb. 26, 4:30 p.m., 609 Clark Hall.

South Asia Program
 "Democracy, Nationalism and Communalism: The Colonial Legacy in South Asia," Asma Barlas, Ithaca College, Feb. 26, 12:15 p.m., G-08 Uris Hall.

Textiles & Apparel
 "Effects of Aging on Plasma Treated UHSPE Fibers and the Plasma Treated UHSPE/Epoxy Interface," Angela Miller, Feb. 22, 12:20 p.m., 317 Martha Van Rensselaer Hall.
 "Characterizing Pesticide Deposition During Vineyard Spraying," Richard Derksen and Charlotte Coffman, Feb. 29, 12:20 p.m., 317 Martha Van Rensselaer Hall.

theater

Theatre Arts Department
 The musical *Working*, based on the book by Studs Terkel, takes a look into the everyday lives of American workers. It will play Feb. 22 through 24 at 8 p.m. and Feb. 24 at 2 p.m. in the Class of '56 Flexible Theatre. Tickets are \$8 for the public and \$6 for students and seniors. For information, call the CTA box office at 254-ARTS.

miscellany

Bloodmobile
 Feb. 26, 10 a.m. to 4 p.m., Noyes Center.

Book Signing
 • Professors Isaac Kramnick and R. Laurence Moore will be at the Campus Store Feb. 22 from



Sophomore wing Erin Schmalz is one of the top scorers on Cornell's women's ice hockey team, which will be Ivy champs with a win against Harvard on Sunday.

symposiums

Black History Month
 "The Evolution of Health Care: Changing to Fit the Needs of Our Communities," a conference sponsored by the Black Bio-Medical and Technical Association and the Collegiate Science and Technology Entry Program, will be held Feb. 24, 9 a.m. to 5 p.m., 700 Clark Hall. Contact Lisa Blackwood at 256-4834 for further information.

Cornell Nigerian Students Association
 The son and brother of Ken Saro-Wiwa, the Nigerian activist who was executed last fall by the Nigerian government, will be keynote speakers at an international conference Feb. 23-25. "Minority Rights and Environmental Justice in Africa: The Agony of the Ogonis in Nigeria" mainly will be held in G-10 of the Biotechnology Building. Ken Wiwa Jr. will give a keynote speech Feb. 23 at 6:30 p.m., and Dr. Owens Wiwa, brother of the slain activist, will speak the following evening. For information, contact M. Ibe Ibeike-Jonah at 255-6849 or 273-3101; e-mail <mil4@cornell.edu>.

12:30 to 1:30 p.m. signing copies of their book, *The Godless Constitution: The Case Against Religious Correctness*, published in January by W.W. Norton.

First Aid Course
 The American Red Cross is offering an adult CPR and first aid class Feb. 23 from 8 to 10:30 a.m. at the Robert Purcell Community Center. To register call the American Red Cross at 273-1900.

Internet Workshop
 An Introduction to the Internet workshop will be held Feb. 27 from 2:30 to 4:30 p.m. in the Uris Library Electronic Classroom. Contact Olin Reference at 255-4144 or e-mail <Olinref@cornell.edu>.

Lesbian, Gay Bisexual Resource Office
 • LGB Faculty/Staff Hiking: Saturdays and Sundays, spend a morning hiking through the beauty of the greater Ithaca area. Contact Joyce Furlano at <jef15@cornell.edu> for more information.
 • LGB Staff/Faculty Potluck Brunch: Sunday, March 3, 10:30 a.m. New event for LGB staff/faculty and their friends to help strengthen a sense of community. Contact the LGBRO for location, 254-4987, <cu_lbg@cornell.edu>. RSVPs appreciated.
 • LGB Staff/Faculty TGIF Gathering: March 1, 4:30 p.m., Chapter House. Look for the table with the rainbow flag.

sports

Men's Basketball (8-13, 4-6 Ivy)
 Feb. 23, at Brown
 Feb. 24, at Yale.
 The cagers went 1-1 last weekend in Newman Arena, after upsetting Dartmouth on Friday, Jan. 16, (61-57 OT) and getting edged by Harvard on Saturday, Jan. 17, (65-60).

Women's Basketball (10-12, 5-5 Ivy)
 Feb. 23, Brown, 6:30 p.m.
 Feb. 24, Yale, 6:30 p.m.
 Erin Rewalt scored 19 points and Jen Stamp added 17 as Dartmouth posted a 76-58 victory over the Big Red on Friday at the Leede Arena in Hanover. On Saturday, the Big Red dropped its second straight game, losing 86-65 at Harvard at Lavietes Pavilion.

Men's Hockey (14-7-4, 11-3-4 ECAC)
 Feb. 23, Union, 7:30 p.m.
 Feb. 24, Rensselaer, 7 p.m.
 The Big Red remained unbeaten in its last eight outings by winning games at Harvard 5-4 and Brown 6-4 last weekend. The pair of wins assured Cornell of its first winning season since 1991-92. Cornell also won the Ivy League championship with a 9-0-1 record for its first unbeaten Ancient Eight slate since 1969-70.

Women's Hockey (14-6-2, 7-5-2 ECAC)
 Feb. 24, at Northeastern
 Feb. 25, at Harvard.
 With their second consecutive four-point weekend, the Cornell women icers have solidified a spot in the ECAC playoffs for the first time ever. With two Ivy League wins over the weekend, they have put themselves within easy reach of the Ancient Eight title. For the first time in recent memory, the Big Red women icers are in control of their own destiny. Cornell outscored its opponents 12-3 last weekend, defeating Princeton 8-3 on Saturday and blanking Yale 4-0 on Sunday.

Men's Polo (9-3)
 Feb. 24, University of Virginia, 8:15 p.m.
 Last Saturday, the men defeated Yale in a surprisingly close match, with the Big Red pulling away in the last chukker to win the contest 23-17.

Women's Polo (9-4-1)
 Feb. 23, University of Virginia, 7:30 p.m.
 After a long, snowy road trip to Connecticut last weekend, the Big Red suffered its first loss in the Eastern region this season, falling to the University of Connecticut 20-14 Saturday. Friday's game vs. Yale at New Haven was won due to forfeit (1-0) by Cornell.

Squash (8-15, 0-6 Ivy)
 Feb. 23-25, NISRA Team Championships at Yale.
 The men's squash team finished third at the New York state championships last weekend, posting a 2-1 record at the event. The squad beat Hamilton (5-4) and Bard (9-0), but lost to Vassar (5-4).

Men's Swimming (7-5, 5-4 in EISL)
 Feb. 29-March 2, Eastern Championships at Harvard
 The men's swim team closed out the regular season on the road last Saturday with a convincing 135-101 win over Dartmouth, thus closing out the campaign with a winning EISL record.

Men's Tennis (0-0)
 Feb. 24, at Navy
 Feb. 25, at George Washington
 At the Penn State Men's Tennis Winter Classic on Sunday, junior Tom Brownlie (Stone Ridge, N.Y.) lost in the semifinals of A singles, dropping a 6-2, 7-6 (7-4) match to the No. 1 seed, Michael Carter of Penn State. Brownlie, who was presented the Sportsmanship Award following his match on Sunday, defeated Rutgers' Devarshi Mitra 6-3, 6-2 in the quarterfinals on Saturday. Senior Jonathan Rapkin (Bellmore, N.Y.) also lost in the A singles semifinals, falling 7-6 (7-4), 6-1 to Penn State's Steven Griesser. In Saturday's quarterfinals, Rapkin beat Kyle Richards of Bloomsburg 7-6 (7-4), 2-6, 7-6 (7-2). In the C singles semifinals, freshman Josh Benjamin (Los Alamos, N.M.) lost to Penn State's Chris Cahill, the No. 1 seed, 6-0, 3-6, 6-1.

Men's Indoor Track (7-6)
 Feb. 24-25, Heptagonal Championships at Dartmouth
 The Cornell men performed very well at last Saturday's non-scoring Kane Invitational at Barton Hall. There were over 20 teams from around the northeast represented at the Invitational. The Big Red took first place in all three of the distance events.

Women's Indoor Track (12-2)
 Feb. 24-25, Heptagonals at Dartmouth. The Cornell women did very well at last Saturday's Kane Invitational in Barton Hall, capturing seven first-place finishes in a field of 20 teams.

Wrestling (13-3; 4-1 Ivy)
 Feb. 22, Syracuse, 7:30 p.m.

CALENDAR

February 22
through
February 29

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

Open to the Cornell community and the general public. For information, contact Edilia at 387-6547.

Feb. 25, North Room, Willard Straight Hall: 7:30 p.m., Israeli dances; 8:30 p.m., request dancing.

Israeli Folkdancing

Thursdays, 8 p.m., Edwards Room, Anabel Taylor Hall; instruction and request dancing; all welcome; free; info: 255-4227.

exhibits

Johnson Art Museum

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

- "Barbara Kasten: Buried," through March 10.
- "The City That Never Sleeps: 20th Century Prints of New York City," through March 10.
- "Renaissance Prints and Drawings: Power and Glory," through March 17.
- "Matisse: The Jazz Series," through March 24.
- "Transformers," through March 24.
- "The Tempo of the City: New York Photography in the 20th Century," through March 24.
- Art for Lunch gallery talks: "Transformers," with Warren Bunn, curatorial assistant, in the exhibition gallery, Feb. 22, noon.
- Sunday Afternoon Artbreaks: On Feb. 25 at 2 p.m., "The Classical Ideal," a 25-minute film, will be shown, followed by a tour of Greek art in the museum's galleries with docent Leslie McQuitty.
- Lecture and reception: Feb. 27 from 5 to 7 p.m., photographer Mel Rosenthal will speak in conjunction with the exhibit "Tempo of the City."
- Gallery talk: Feb. 29 at 5 p.m., artist Barbara Kasten will speak about her installation, "Buried."

Hartell Gallery (M-F, 8 a.m. to 5 p.m.)

- Senior Photography II, through Feb. 24.
- Senior Photography I, Feb. 25-March 2

Kroch Library

An exhibit of the work in wood of Elfriede Abbe is open Monday-Friday, 8 a.m. to 5 p.m., and Saturday, noon to 5 p.m., in the Division of Rare and Manuscript Collections, 2B Kroch Library.

Tjaden Gallery (M-F, 8 a.m. to 5 p.m.)

- Paintings by students of Stan Taft, through Feb. 23.
- Digital photography by students of Barry Perlus, Feb. 24-March 1.



Werner Herzog offers an otherworldly look at Kuwait after the Gulf War in the film "Lessons of Darkness," which will screen tonight, Feb. 22, at 8 p.m. in Willard Straight Theatre.

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 and children under 12), except for Tuesday night Cinema Off-Center at the Center for Theatre Arts (\$2) and Saturday or Sunday matinees (\$3.50). Films are held in Willard Straight Theatre except where noted.

Thursday, 2/22

"Lessons of Darkness" (1995), directed by Werner Herzog, 8 p.m.

"Mall Rats" (1995), directed by Kevin Smith, with Shannen Doherty, Jeremy London and Jason Lee, 9:30 p.m.

Friday, 2/23

"Once Upon a Time in China IV" (1994), directed by Yuen Chan, with Zhao Wen-Zhou, Max Mok and Jean Wang, 7:15 p.m.

"Devil in a Blue Dress" (1995), directed by Carl Franklin, with Denzel Washington, 7:20 p.m., Uris.

"Mall Rats," 9:45 p.m., Uris.

"Clockers" (1995), directed by Spike Lee, with Harvey Keitel, John Turturro and Mekhi Phifer, introduced by writer Richard Price '71, 10 p.m.

"Once a Thief" (1991), directed by John Woo,

with Chow Yun-Fat, Leslie Cheung and Cherie Chung, midnight, Uris.

Saturday, 2/24

"The Cameraman's Revenge and Other Fantastic Tales: The Amazing Puppet Animation of Ladislav Starewicz" (1912-1958), IthaKid Film Fest, 2 p.m., \$2/\$1.50 kids 12 and under.

Gurinder Chadha's "I'm British But . . ." presented by the South Asia Program and the South Asia Association for Political and Academic Awareness, followed by a community gathering open to all, 5 p.m., Cafe, Anabel Taylor Hall.

"Return of the God of Gamblers" (1995), directed by Wong Jing, with Chow Yun-fat and Tony Leung, 7:15 p.m.

"Mall Rats," 7:20 p.m., Uris.

"Devil in a Blue Dress," 9:30 p.m., Uris.

"Once Upon a Time in China IV," 10 p.m.

"Once a Thief," midnight, Uris.

Sunday, 2/25

"Devil in a Blue Dress," 4:30 p.m.

"Mall Rats," 7 p.m.

"Return of the God of Gamblers," 9:15 p.m.

Monday, 2/26

"Akrobat Schö-ö-ön" (1943), directed by

Wolfgang Staudte, 7 p.m.

"Mall Rats," 9:30 p.m.

Tuesday, 2/27

"Divertimento" (1993), directed by Jacques Rivette, with Michel Piccoli, Jan Birkin and Emmanuelle Beart, 7 p.m.

"New Video Japan IV" (1994), directed by various, 7:30 p.m., CTA Film Forum.

"Mall Rats," 9:45 p.m.

Wednesday, 2/28

"Night of the Hunter" (1955), directed by Charles Laughton, with Robert Mitchum, Shelley Winters and Lillian Gish, 7 p.m.

"Memories of Underdevelopment" (1968), directed by Tomas Gutierrez Alea, Spanish with English subtitles, presented by CUSLAR and the Latin American Studies Program, 8 p.m., Uris, free.

"The Double Life of Veronique" (1991), directed by Krzysztof Kieslowski, with Irene Jacobs and Philippe Volter, 9:15 p.m.

Thursday, 2/29

"With One Foot in Eastern Europe and the Other One in America" (1993), directed by Miso Suchy, 7 p.m.

"Divertimento," 9:20 p.m.

noon and Friday, April 5, 9 a.m. to noon, Anabel Taylor Hall, auditorium, 2nd floor. For more information, contact IRS, toll-free, 1-800-829-1040.

graduate bulletin

• **Course changes:** There is a \$10 charge for adding each course. Courses may be dropped or credit hours or grading options may be changed through March 8 without penalty. Instructor of course and student's chairperson must sign the drop/add form. A course dropped after March 8 will appear on transcripts with a "W" (withdrawn). No course may be dropped or changed after May 3.

• **Commencement** is Sunday, May 26. To receive a May degree, the deadline for completing all requirements is May 17. Deadlines are earlier to have a diploma available for pickup following the commencement exercises (March 15) or to have one's name appear in the commencement program (March 29). A ceremony to individually recognize Ph.D. candidates will be at Barton Hall, Saturday, May 25, 5 p.m.; family, friends and faculty are invited. A reception follows the ceremony. Information will be in commencement packets available in March at the Graduate School.

• **Elections:** Vote March 5 and 6 for Student-Elected Trustee on the Board of Trustees; sites are the Big Red Barn, 11 a.m. to 2 p.m.; Willard Straight, 10 a.m. to 7 p.m.; Trillium, 10 a.m. to 2:30 p.m.; and RPU and Noyes Dining, 5 to 8 p.m.

• **Income Tax Seminars for International Students:** A representative from the Internal Revenue Service will conduct a seminar for international students on Tuesday, March 5, 9 a.m. to

lectures

Archaeological Institute of America, Finger Lakes Society

"Chasing Roman Soldiers: Military Careers in the Reigns of Trajan and Hadrian," James Russell, University of British Columbia, Feb. 22, 8 p.m., 22 Goldwin Smith Hall.

"Recent Excavations of Prehistoric Sites in Eastern Thrace," Mehmet Ozdogan, University of Istanbul, Feb. 23, 4:30 p.m., 22 Goldwin Smith Hall.

Cornell United Religious Work

"The Godless Constitution: The Case Against Religious Correctness," a forum by Professors Isaac Kravnick and Laurence Moore, Feb. 22, 4 to 6 p.m., Anabel Taylor Chapel.

English

Dancer and choreographer Byron Suber will speak Feb. 26 at 2:55 p.m. in Hollis Cornell Auditorium, Goldwin Smith Hall, as part of the "Mind and Memory" lecture series.

European Studies, Institute for

"Bosnia, Germany and the Politics of Peace,"

Claus Leggewie, New York University, Feb. 23, noon, G-08 Uris Hall.

A roundtable on "Quebec: Province or Sovereign State" will be held Feb. 23 at 1:30 p.m. in G-08 Uris Hall.

"Mass Media, Discourse and Nationalism," Danail Danov, Central European University, Prague, Feb. 26, 12:15 p.m., 153 Uris Hall.

Ivy Leaguers for Freedom and Intercollegiate Studies Institute

"Multiculturalism: Is It Helping or Hurting Race Relations in the United States?" a debate between Star Parker, radio talk show host in California, vs. Donald Barr, professor of humanities, moderated by Dean of Students John Ford, Feb. 28, 7 p.m., call M. Capel at 277-7492 for location.

Music

Robert Sirota will speak at the Composers Forum Feb. 23 at 1:25 p.m. in 301 Lincoln Hall.

North American Rock Garden Society

"Hunting for Asarums in China," Larry Kelly, Feb. 24, 10:30 a.m., 404 Plant Science Building.

Society for the Humanities

"The Berlin Republic: What Is New About the New Germany?" Claus Leggewie, New York University, Feb. 22, 4:30 p.m., Guerlac Room, A.D. White House.

"From Enlightenment to Revolution: French Readers Rewrite Their World in the 1780s," Dena Goodman, Louisiana State University, Feb. 28, 4:30 p.m., Guerlac Room, A.D. White House.

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