

CORNELL Chronicle

Volume 28 Number 7 October 3, 1996

HONG KONG'S FUTURE

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Campus organizations help students get ready to vote — by helping them get registered first.

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Vidler named dean of the College of Architecture, Art and Planning

By Darryl Geddes

Anthony Vidler, professor of art history and architecture and chair of the Department of Art History at the University of California at Los Angeles, has been named dean of the College of Architecture, Art and Planning at Cornell.

The appointment, effective Jan. 1, 1997, was made by Cornell Provost Don M. Randel and will be recommended for approval by the Board of Trustees at its October meeting.

Vidler succeeds William G. McMinn, who

stepped down in June after serving as dean since Aug. 1, 1984. Stanley J. Bowman will serve as acting dean until Vidler's arrival.

"In Anthony Vidler, we are fortunate to have attracted someone of uncommon intellectual distinction to the deanship of the College of Architecture, Art and Planning," Randel said. "The range of his abilities and experience, furthermore, makes him ideally suited to address the academic issues facing the college as a whole, as well as to play a leading role in discussions among a set of related disciplines that are widely distrib-

uted across the campus. I look forward very much to his stimulating presence here."

British-born Vidler is a historian, critic and theorist in the study of urban planning and architecture, with specializations in European architecture, the architecture of the Enlightenment and the 18th century in France, the history of Paris in the 19th and 20th centuries and criticism of contemporary architecture, and he is an authority on the work of the French architect Claude Nicolas Ledoux (1736-1806). Vidler earned a bachelor's degree in architecture and fine

arts and a professional graduate degree in architecture from Cambridge University in 1963 and 1965, respectively.

At Cornell, Vidler will oversee a college of about 70 faculty members and 730 undergraduate and graduate students. The college has an annual budget of \$10.4 million and offers undergraduate degrees in bachelor of architecture, bachelor of fine arts, bachelor of science in urban and regional studies and bachelor of science in the history of architecture. Advanced degrees are available in

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Hundreds of students pitched in for Ithaca service organizations

By Jade Wong '97

There were no food fights in the Beverly J. Martin Elementary School cafeteria Saturday morning. Instead, about 300 determined Cornell students munched away on bagels donated by Tops supermarket and sat beneath hand-lettered signs bearing the names of community service organizations ranging from the Teen Pregnancy and Parenting Program to the American Red Cross.

The students and some community members had gathered at the school before going "Into the Streets" to help with service projects at the organizations named on the signs. The Fall Service Day — the sixth annual at Cornell — was developed to raise awareness among students about community service work. More than 120 college campuses across the country take part in similar Into the Streets programs.

The day began with a kickoff breakfast at Beverly J. Martin Elementary and words from Adina Saperstein '98, director of Into the Streets at Cornell, a project of the university's Public Service Center. She stressed that the goal of the day and of the student-led organization was to "foster continuing connections between Cornell and the Ithaca community." Other speakers included Susan Murphy, Cornell's vice president for student and academic services, and Alan Cohen, Ithaca mayor. Both Murphy and Cohen participated in service projects during the day.

Referring to discussions about a sense of "community" on campus, Murphy suggested that community often grows when people who don't know each other come together to work side by side in a shared activity.

"It is one of the best ways to find what a community means," she told the volunteers.



Charles Harrington/University Photography

From left to right, Robert Kitts '00, Ithaca Mayor Alan Cohen, Shannon Dungan '00, Susan Murphy, vice president for student and academic services, and Jennie Mogy '00 take a reading break while helping to organize the library at the Northside Community Center on Saturday.

The word "community" also was used by volunteers, such as Alfredo Rabines '00, who participated, he said, because, "I thought it would be a great help for the community and a good thing for students to gather around."

With a wide range of agencies and organizations to choose from, Into the Streets attracted participants from many segments of the campus. Volunteers were divided into groups according to their interests, and each group was headed by a team leader and was responsible for a particular project.

Jeremy Lack '98 led the Cornell Cooperative Extension team, which helped with painting and trail maintenance, the kinds of essential upkeep projects that agencies often have few resources to carry out.

Better Housing for Tompkins County Inc., which provides housing rehabilitation assistance, got maintenance help from Aline Prentice '99 and her team. Prentice said she was moved to participate because of the idea,

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J. Ogradnick/NYS Ag. Expt. Sta./Cornell

Dennis Gonsalves, Cornell professor of plant pathology at the NYS Agricultural Experiment Station, holds a healthy papaya leaf in a greenhouse at the Geneva facility.

USDA clears virus-resistant papaya for production

By Linda McCandless

Cornell and the University of Hawaii have unveiled two lines of papaya that could save the \$45 million Hawaiian papaya industry. "SunUp" and "Rainbow" look and taste like their "Sunset" predecessor and are resistant to the papaya ringspot virus (PRSV), which is destroying the Hawaiian crop.

Papaya is the nation's first genetically engineered fruit crop to be cleared for eventual commercial production. The USDA removed regulatory restrictions on growing the two new cultivars earlier last month.

"Deregulation is the first big hurdle in commercialization," said plant pathologist Dennis Gonsalves of Cornell's New York State Agricultural Experiment Station in Geneva, N.Y., who has been involved in papaya research since 1978. "Commercialization could save the entire Hawaiian papaya industry. Our cultivars have shown

excellent resistance in the laboratory, in the greenhouse and in long-term field trials."

Gonsalves, the Liberty Hyde Bailey Professor of Plant Pathology at Cornell, has been cooperating closely on the papaya project with horticulturist Richard Manshardt of the University of Hawaii, Honolulu-based USDA plant physiologist Maureen Fitch and Upjohn Co. scientist Jerry Slightom.

Researchers developed the genetically engineered papaya lines by using recombinant DNA techniques to isolate and clone a PRSV gene that encodes for production of the viral coat protein. The gene was "shot" into cells of the papaya plant using a special gene gun developed at the Experiment Station. Expression of the gene in the resulting papaya line renders it resistant to the virus.

Papaya, one of the five largest crops in Hawaii, has been decimated in recent years by PRSV, which reduces fruit quality and eventually kills the trees. Many Hawaiian

papaya growers believe that without PRSV-resistant papayas, the state's commercial papaya production virtually will be eliminated. PRSV infects papayas worldwide.

Jim Hunter, director of the Geneva Station, compares the process of conferring resistance to a kind of "molecular immunization." Researchers at Geneva selected papaya as a "model system" to develop the technology for genetically engineering virus resistance in fruit crops. Papaya, a fast-growing tree fruit, comes into production within nine to 12 months.

"Our intention is to engineer virus resistance into important New York fruit crops like apples and grapes," Hunter said. "It is fortunate that Dennis' experimental work with papaya has immediate application in the tropical regions of the world, where papaya is such an important crop."

Gonsalves directs a research program at Geneva that uses both conventional tech-

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Students *continued from page 1*

'Students are not just doing service, but they are learning about the need behind the service.'

— Katherine Doob

she said, "that you're going in and committing yourself to service."

Cornell President Hunter Rawlings even got into the act, visiting various project sites throughout the day, including Titus Towers, a senior citizens' housing complex.

Two years ago, seniors Paul Krieger and Kenny Young became friends, they said, after discovering a shared interest in public service while volunteering for Into the Streets. That experience led to both joining the Community Partnership Fund Board, a public service grant organization.

One goal of Into the Streets is to foster those kinds of connections, organizers said, as well as to encourage further community service.

According to Lydia Wong '99, education and awareness chair for Into the Streets, such connections often are achieved during "Reflections," a period at the end of the day when participants gather again at the school to eat pizza and share their thoughts.

"A lot of [campus] community service organizations overlook this, but it's really the most important part," Wong said.

After all, said Katherine Doob, director of the Public Service Center, "Students are not just doing service, but they are learning about the need behind the service. For many, it is their first time into the community and off the Cornell campus."

Memorial service is set for Deane Malott

A memorial service for Deane W. Malott, Cornell president from 1951 to 1963, will be held Sunday, Oct. 20, at 3 p.m. in Sage Chapel.

Malott died Sept. 11 at his home in Ithaca. He was 98.

The memorial service will be followed immediately by a reception at the Herbert F. Johnson Museum of Art.

Memorial contributions may be made in Malott's name to the National Tropical Botanical Garden, P.O. Box 340, Lawai, Kauai, Hawaii 96765; the Eleanor S. Malott Memorial Garden Fund, Kansas University Endowment, P.O. Box 928, Lawrence, Kan. 66044; and Cornell's Samuel Curtis Johnson Graduate School of Management, 303 Malott Hall, Ithaca, N.Y. 14853.



Adriana Rovers/University Photography

President Hunter Rawlings addresses volunteers and staff at the United Way of Tompkins County 1996 Campaign kickoff breakfast Sept. 24 at the Triphammer Lodge and Conference Center.

President introduces officers for campus United Way campaign

Dear Colleagues:

For the past 75 years, the Cornell community has shown how much it cares about the greater Ithaca community by being involved in and supporting the annual United Way Campaign on campus. I want to take this opportunity to recognize the following faculty, staff and others who are volunteering their time this year for the 1996-97 effort.

Cornell United Way Campaign Cabinet: Franklin M. Loew, university campaign chair; Rhonda H. Velazquez, university campaign coordinator; Janiece Bacon Oblak, university volunteer coordinator; Catherine C. Salino, auditing co-chair; Donna M. Green and Frederick A. Rogers, Livermore Society co-chairs; Marilu DelToro '97 and Elizabeth A. Zogby, publicity co-chairs; Russell D. Martin, retirees co-chair; Steven F. Thane, systems co-chair.

Division Deputies: Kris A. Minor, Admissions & Financial Aid; Joann Gruttadaurio, Agriculture & Life Sciences; Brenda Bleck, Architecture, Art & Planning; Philip E. Lewis, Arts & Sciences; Alan E. Gantert, Athletics & Physical Education; Joseph T. Moresco, Biological Sciences; Kathleen L. Struble, Information

Technologies; Janice Miles, Continuing Education & Summer Sessions; Joel Zumoff, Controller & Financial Services; Ann D. Argetsinger, Cooperative Extension; Joan A. Heffernan, Engineering & Research Centers; Jacqueline Fenton, Facilities & Campus Services; Kristie Lovley, Graduate School; Margaret H. Ferguson, Hotel School; Jeannette V. Thorpe, Human Ecology & Nutritional Sciences; Karin Ash, Industrial & Labor Relations; John P. McKeown, Johnson Graduate School of Management; Cynthia R. Farina and Michael P. Riley, Law School; Catherine L. Murray-Rust, University Libraries; Duane H. Davis, Alumni Affairs & Development; Philip McPheron, Student & Academic Services; Maureen O. Updike, University Administration; Theresa C. Pollard and John E. Saidla, Veterinary Medicine-Faculty; Russell D. Martin, Retirees.

Please respond generously when you are contacted by your colleagues over the next few weeks. Your participation in the university's campaign is vital to so many important local non-profit agencies on which we all depend.

Thank you,
President Hunter Rawlings

Hawaiian papaya crop *continued from page 1*

niques and the latest molecular technologies to breed disease resistance into fruits and vegetables. He collaborated with Asgrow Seed Co. on the development of Freedom II, a genetically engineered virus-resistant squash that was commercialized in 1995.

Genetic engineering of fruits and vegetables can increase quality and other desirable characteristics while decreasing the amount of chemicals required for pest control. Bioengineering desired traits also reduces the time it takes plant breeders to alter a plant by traditional breeding methods and can save millions of dollars in crop development.

"These papaya lines pose no plant pest risk and, therefore, should no longer be considered as regulated articles under our regulations governing the introduction of certain genetically engineered organisms," said John H. Payne, acting director of Biotechnology, Biologics and Environmental Protection with the USDA's Animal and Plant Health Inspection Service (APHIS).

The transgenic papaya will have no harmful effects to humans, Gonsalves said, since PRSV-infected fruits, which contain the gene, are commonly eaten by consumers. Sugar levels are also the same, he said, noting, "The only way we have affected papaya quality is to make it resistant to

PRSV, which improves its survivability."

"Deregulation is a major positive step which augurs well for rapid adoption and acceptance of other agricultural biotech products," said Lynn W. Jelinski, director of the New York State Center for Advanced Technology in Biotechnology at Cornell, which provided partial funding for the project. "Dennis has a special gift for combining outstanding science with real-world problems to make a positive impact on society," Jelinski said.

USDA deregulation is a major milestone in the path to commercializing a PRSV-resistant papaya, but several hurdles remain. Other federal agencies, including the Food and Drug Administration and the Environmental Protection Agency, also must clear the genetically engineered papaya. In addition, licenses for use of the new technology for papaya production still are being negotiated with corporate patent holders. This aspect is being handled by the Papaya Administrative Committee, based in Hilo, Hawaii, which manages the federal marketing order for the fruit.

Production of sufficient "SunUp" and "Rainbow" seed to meet the papaya industry's needs also will require time, so the cultivars will not be immediately available. The first virus-resistant papayas could begin to appear in grocery stores in 1998.

BRIEFS

Open house for animal science research center:

The public — young and old — is invited to a behind-the-scenes tour of Cornell's Animal Science Teaching and Research Center in Dryden this Saturday. The open house is free and will include tours from 10 a.m. to 3 p.m. "This is a chance for families to see dairy cattle, beef cattle and sheep," said Harold Hintz, professor and chair of the Animal Science Department. "We'll even show you how cows are milked." The research facility tours are designed for a non-agricultural audience, where families can talk to professors and researchers about animal science. Located on 2,600 acres just outside Cornell's campus, the research facility supports 700 Holstein dairy cattle, of which 400 are for milking. The research focuses on improved dairy management and nutrition. The Teaching and Research Center is located five miles south of Dryden, off Route 38. From Ithaca, take Route 13 north to the Village of Dryden, then south on Route 38 for five miles.

Fellowships in Germany:

Applications are being invited for German Academic Exchange (DAAD) Fellowships and CU-Heidelberg and CU-Göttingen Exchange Fellowships for 1997-98. The deadline is Monday, Oct. 7. DAAD fellowships carry tuition and fees, monthly stipend and round-trip transportation. They enable students to study at a German university or work on a research project in Germany. According to DAAD guidelines, "graduating seniors, graduate students and Ph.D. candidates of high academic caliber, who are currently enrolled full time . . . and are not older than 32 are invited to apply." Canadian citizens attending Cornell and U.S. citizens are eligible. The Graduate Exchange Fellowships to Heidelberg and Göttingen carry tuition and fees plus monthly stipend. Students must arrange for their own transportation. The awards are intended mainly for graduate students interested in full-time study at either university. Applications for both types of fellowships should include project outline and/or rationale for study abroad, Cornell transcript, two letters of recommendation from professors in the student's field, local address and telephone number. Applicants must have a good knowledge of the German language at the time of application. Applications should be sent to Professor Herbert Deinert, 188 Goldwin Smith Hall, 255-4047, or to Marguerite Mizelle, 183 Goldwin Smith Hall, 255-4047.

Technology forums:

Academic Technology Services, a division of Cornell Information Technologies (CIT), is hosting a series of open forums on technology-related subjects of interest to the Cornell community. The following presentations will be given:

- Oct. 10: "ISDN (Integrated Systems Digital Network) on the Cornell Campus" will be presented by Joy Veronneau of CIT's Advanced Technology Group. Veronneau will describe Cornell's ISDN pilot project, as well as address the continuing high cost of providing connections via this method.
- Oct. 25: "Untangling the Web: Making Sense of the New (And Some Old)" will be presented by Howard Strauss, manager of advanced applications for Princeton University. Strauss will talk about the World Wide Web's rapid advances and changes, and how to use and incorporate the latest Web features.

Check the Technology Forum Web page, <<http://www.cit.cornell.edu/ats/tf.html>>, for times, locations and further information.

Emeritus profs will meet:

The Association of Cornell University Emeritus Professors will hold its fall meeting at 2:15 p.m. on Oct. 30 in G-10 of the Biotechnology Building. In addition to the social hour and business meeting, Plantations Director Donald Rakow will speak on "Cornell Plantations: Past Roots — Future Branches." Spouses and friends of emeritus faculty are welcome, as are spouses of deceased emeritus faculty.

CORNELL Chronicle

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Published 43 times a year, the *Cornell Chronicle* is distributed free of charge on campus to Cornell University faculty, students and staff by the University News Service.

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Mail Subscriptions:

\$20 per year. Make checks payable to the *Cornell Chronicle* and send to Village Green, 840 Hanshaw Road, Ithaca, N.Y. 14850. Second-Class Postage Rates paid at Ithaca, N.Y. POSTMASTER: Send address changes to the *Cornell Chronicle* (ISSN 0747-4628), Cornell University, 840 Hanshaw Road, Ithaca, N.Y. 14850.

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China's Hong Kong policy poses daunting challenges, expert says

By Jill Goetz

Neither the lives nor the livelihoods of Hong Kong's 6 million residents will be affected when China assumes the lease on this British colony July 1, 1997, say the landlords-to-be in Beijing.

They say that under their "one country, two systems" policy – the guiding principle behind the joint declaration they signed with the United Kingdom in 1984 to reclaim Hong Kong – the world financial center on China's southeastern coast will retain its capitalist and democratic character for the next 50 years.

Like millions of others within and without Asia, Byron S.J. Weng, a member of several governmental advisory bodies on Taiwan and a professor of government and public administration at the Chinese University of Hong Kong, would like to believe that. Though the one country, two systems policy may have been drafted as a laudable attempt at compromise, he said in a Monday lecture to more than 150 students, faculty and Ithaca residents in Clark Hall, it might wind up as a recipe for confusion.

"I believe Beijing has every intention of keeping Hong Kong stable and prosperous," he said. "Beijing itself has pumped a considerable amount of capital into Hong Kong, and I think business in the area is likely to have a fairly optimistic future."

According to the Sino-British Joint Declaration of 1984, Hong Kong will operate with considerable autonomy as a "Special Administrative Region" (SAR) for the next 50 years. It will remain a free port, with everyday operations to be run by its own citizens; and those citizens will retain all their rights, including those of speech, the press, religion, property ownership and free enterprise.

"Now on the surface, you would say that having these two systems is a very good thing," Weng said. "Yet many people are resistant to it. Why?"

"One country, two systems has some characteristics that are worrisome to people who look into it," he said. "It is an arrangement that is contradictory in nature; you have capitalism and socialism juxtaposed, [and] you will have an open system that is at the mercy of a closed, socialist system."

Such an arrangement has profound implications, not only for the Chinese government, but for others around the globe. Not yet addressed, he suggested, are such questions as:

- What if a resident of mainland China, with its strict "one child, one family" policy is assigned to work in Hong Kong (where the policy does not apply) and becomes a parent of a second or even third child?



Robert Barker/University Photography

Byron S.J. Weng, right, professor of government and public administration at the Chinese University of Hong Kong, speaks with, from left, Vivienne Shue, the Frank and Rosa Rhodes Professor of Chinese Government; Lee C. Lee, professor of human development and family studies; and President Hunter Rawlings after Weng's lecture in Clark Hall Monday.

'I believe Beijing has every intention of keeping Hong Kong stable and prosperous. Beijing itself has pumped a considerable amount of capital into Hong Kong, and I think business in the area is likely to have a fairly optimistic future.'

– Byron S.J. Weng

- How will Beijing justify the huge salary differences of workers in comparable positions in Hong Kong and the People's Republic?

- How will a new national identity alter the loyalty of Hong Kong's civil servants, long revered worldwide for their efficiency?

- How will Beijing respond when Hong Kong residents protest its policies? Weng noted that Beijing made some restrictive revisions to its Hong Kong policy after the 1989 Tiananmen Square massacre. Many Hong Kong residents had supported the student demonstrators in the month preceding the massacre, and it continues to be condemned by many people there.

- How will foreign governments handle Hong Kong residents' passports after the

1997 transition?

Weng also said that the transitional nature of the one country, two systems policy makes it unclear when and how changes will occur. Though a new flag may be the only obvious sign of change nine months from now, he said, socialism could in fact shape Hong Kong long before 2047.

"If 50 years is the limit, it's entirely possible that change will take place in 25 years," he said.

Weng predicted that the one country, two systems policy will pose daunting challenges not only for Beijing's leaders but for those in the United States. He pointed out that the policy the U.S. government enacted in 1992 to guide its relations with Hong Kong after July 1, 1997, treats Hong Kong

as a territory separate from the People's Republic of China and distinguishes the Hong Kong people from the Chinese.

"Using language like that has profound implications" for U.S. foreign policy, Weng said.

After the lecture, some audience members said they did not share Weng's guarded optimism regarding the transition.

"It was a very informative lecture, and a good outline of the one country, two systems policy," said plant pathology graduate student Frank Wong. "But being the son of immigrants from Canton, I didn't take away even a glimmer of optimism. It sounds like the PRC is going to maintain Hong Kong as an economic resource for as long as it can and then just burn it up."

Government major José Alemán '97 said the one country, two systems policy sounded to him not so much a policy as an attempt at procrastination.

"I think that 50 years is a nice way of saying, 'let's just put it off,'" he said.

Weng will present his final lecture at Cornell this afternoon on "Sino-American Relations and the Question of Taiwan" at 4:30 in Room 165 of McGraw Hall.

CIT prepares to help computer users weather the 'Year 2000 Glitch'

By Bill Steele

If you were born early in 1970, a computer would correctly calculate your age as 26. After the turn of the millennium the same computer might decide that you are 70. Or maybe even minus 70.

That could be the least of our problems around a university campus. If you have a four-year grant starting in 1997, will the computer tell you in the year 2000 that it expired 99 years ago??

Cornell, like the rest of the world, must prepare to deal with the infamous "Year 2000 Computer Glitch" which results from the fact that most computer software stores dates as two digits. "1996" is stored as "96." "2000" is stored as "00" – but most computer software thinks that means "1900."

At the top administrative level of the university, this won't be much of a problem; much of Day Hall's software is being rewritten anyway as part of, appropriately, "Project 2000." But that still leaves a lot of computers around campus that will need fixing.

"The year 2000 problem is much more insidious than people think," said Helen Mohrmann, director of administrative systems and distributed technology for Cornell Information Technologies. "It will affect databases on Macs and PCs, de-

partmental databases not replaced by Project 2000 and things geared toward academic and research efforts."

Mohrmann said CIT is planning an education and support effort.

"The campus should look for presentations and articles this fall," she said. "And we will be visiting the usual suspects." That mainly means college and departmental system administrators, she explained.



Mohrmann

The problems will be different in each system. Some recent versions of popular software have already been updated to correct the problem. It's hoped other vendors will follow suit, but there are no guarantees. Custom software packages may have to be modified or replaced. That includes what Mohrmann calls "legacy systems," which run on old mainframes and are written in more or less outmoded languages, such as COBOL.

The biggest offenders probably will be database systems, which often are called on to sort records by date. Some of the problems will just be "cosmetic." For example, members of the Class of 2000

may show up before members of the Class of 1999 on lists and reports. But operations that require adding or subtracting dates, like calculating a person's age based on the birth date, may produce incorrect or even ridiculous answers.

On desktop computers, the problems may extend down to the hardware and operating systems. Macs already store dates as seconds counted from a fixed date in 1904, but this doesn't mean all software uses the information. Hardware to make IBM-compatible PCs 2000-compliant has been available for about two years, but not all manufacturers have used it. Microsoft says that its Windows 95 and Windows NT products will recognize four-digit dates, and the company recommends that users update to 1997 or later versions of its products before the turn of the century. The fate of MS-DOS and earlier version of Windows is not clear. More information is available from Microsoft at <<http://www.microsoft.com/cio/year2000.htm>>.

(To run a quick test yourself, change the date on your computer and watch what happens.)

Information for both micro and mainframe users is available from the General Services Administration of the United States government at <<http://www.itpolicy.gsa.gov/library/yr2000/y201toc1.htm>>.

"It's not a one-size-fits-all solution," Mohrmann said. "It will depend on who the vendors of the software are, or the tools that were used to create custom programs. Given the diversity across campus, we're sometimes going to have to help people help themselves by putting them in touch with vendors or outside companies. Some people out there have software we've never heard of."

Mohrmann says that CIT eventually will have a central source for people to contact with questions, but the exact structure for that hasn't been worked out yet. Meanwhile, users are encouraged to contact software vendors and ask if the products now in use are 2000-compliant or if updates are available.

Once everything is fixed, "Even if your systems are up-to-date and clean," Mohrmann warns, "you could have problems if you get data feeds from other sources."

And we won't have to wait for the end of the century to see glitches.

"I know of examples in private industry already," Mohrmann said. "One car manufacturer had parts that came in with an expiration date beyond 2000, and they were automatically rejected."

And right here, she pointed out, "We already have the Class of 2000."

Eleven faculty members are elected to hold endowed professorships

At its September meeting, the Executive Committee of the Cornell Board of Trustees approved the following endowed professorships. Those faculty members elected are:

Harry Charles Katz, professor in the School of Industrial and Labor Relations, as the first Jack Sheinkman Professor of Collective Bargaining.



Katz

The Jack Sheinkman Professorship in Collective Bargaining was established by the Board of Trustees in January 1996. The professorship is named in honor of the alumnus who served as president of the Amalgamated Clothing and Textile Workers Union and as a member of the Cornell University Board of Trustees for many years. Funding for the Sheinkman Professorship was provided by corporations, unions, alumni and others who wanted to recognize Sheinkman's lifetime of service to the union movement, the university and the School of Industrial and Labor Relations.

Katz is a labor economist who specializes in the study of collective bargaining. He was awarded the Ph.D. in 1977 from the University of California at Berkeley. He joined the faculty of the School of Industrial and Labor Relations in 1985 and was promoted to professor in 1988. He currently serves as director of the school's Institute of Collective Bargaining. Recently Katz has undertaken research on the growing decentralization of collective bargaining in industrial democracies. His books and many of his articles are considered to be required reading in labor relations courses offered at other universities. He is a highly respected classroom teacher at Cornell, and because of his scholarly achievements he attracts graduate students from around the world. He assumed leadership of the Institute of Collective Bargaining in 1989, three years after its establishment, and has made the institute an organization respected by management and union officials alike. Katz also has been very active in professional and scholarly communities outside Cornell. He serves on the editorial boards of several leading scholarly journals and as a consultant to several corporations, the AFL-CIO, and the UAW.

Theodore Eisenberg, professor of law, as the first holder of the Henry Allen Mark Professorship of Law.



Eisenberg

The professorship is funded by an original commitment made and accepted in 1978 through the estate of Henry Allen Mark, JD '35, to the Cornell Law School and through an additional commitment of annual gifts. Mark's long career in law and public service ended in 1974 as a senior

partner of Cadwalader, Wickersham and Taft in New York City.

Eisenberg, an extraordinarily prolific scholar, joined the Cornell Law School faculty in July 1982 after initially achieving tenure at UCLA. He has written with distinction in three fields. In the field of federal statutory civil rights law he has written several major articles and a casebook, *Civil Rights Legislation*. He has written another casebook, *Debtor-Creditor Law*, and a significant number of articles in the field of debtor-creditor law. Most recently he has produced a large number of articles in which empirical statistical methods are applied to study legal phenomena, with creative and often startling results.

Nicholas M. Kiefer, the Henry Scarborough Professor of Social Science, Department of Economics, College of Arts and Sciences, as the first Ta-Chung Liu Professor of Economics. He will relinquish the Henry Scarborough Professorship.



Kiefer

A contribution has been pledged to Cornell for the establishment of a professorship by Ernest S. Liu in memory of his father, Ta-Chung Liu; and in honor of his father's service to Cornell as a faculty member and chairman of Cornell's Department of Economics and as director of the Program of Comparative Economic Development.

Kiefer is one of the leading econometricians in the profession. His contributions span a wide variety of areas, including job-search theory, the economics of information, optimal learning and menu pricing, and they deal with purely theoretical issues as well as applied ones directly relevant to policy-makers. He joined the faculty with tenure in 1980, was promoted to professor in 1985, and was elected the Henry Scarborough Professor of Social Science in 1991. Kiefer has helped establish the Department of Economics as a major research center for econometrics, and he has been the organizer of the Center for Analytic Economics Econometrics Workshop for many years and the director of the CAE for a three-year term. He has recently moved to a new area of research (the nature of financial markets), while continuing to work on equilibrium search models in labor economics.

Mario L. Schack, professor in the Department of Architecture, College of Architecture, Art and Planning, as the first Arthur L. and Isabel B. Wiesenberger Professor in Architecture.

The Arthur L. and Isabel B. Wiesenberger Professorship in Architecture was established in May 1994. Arthur L. Wiesenberger graduated from the College of Architecture, Art and Planning in 1929. His wife, Isabel, attended Cedar Crest College. She died Feb. 8, 1992. Wiesenberger is the retired president of Arthur Wiesenberger

and Associates, a Pennsylvania engineering and consulting firm. He is also a former Secretary of Highways for Pennsylvania and founder of the Kutztown University Foundation. The Wiesenbergers were recognized as foremost benefactors by Cornell in February 1991.

Schack is an accomplished practitioner in architecture. Having earned the M. Arch. from Harvard in 1961, he served as assistant professor at Cornell from 1963 to 1965 before returning as professor in 1975. As a vice president of RTKL, Baltimore, he was active in promoting the firm's growth and produced numerous award-winning buildings in Baltimore and other cities. In addition, he served as vice president with the firm of Perkins and Wills and, while serving in that capacity, designed Snee Hall on the Cornell campus. As a practicing architect, Schack has brought breadth and realism to his studio teaching and has been instrumental in building the curriculum in professional practice and ethics. During his tenure at Cornell he has served as department chair (1975-1979), providing strong leadership at a critical time. Subsequently he became director of the Cornell-in-Washington Program in Architecture and Urban Design (1979-1991).

Jean M.J. Fréchet, professor in the Department of Chemistry, College of Arts and Sciences, as the first Peter J.W. Debye Professor of Chemistry, and **Fred W. McLafferty**, professor emeritus in the Department of Chemistry, as the first Peter J.W. Debye Professor of Chemistry, Emeritus.



Fréchet



McLafferty

The professorship was established in March 1996 through an agreement with Department of Chemistry alumni in honor of former faculty member and distinguished chemist Peter J.W. Debye. A theoretical physical chemist, he was awarded the Nobel Prize in 1936. Debye served as an eminent teacher and scholar at Cornell from 1939 until his death in 1966.

Fréchet has Ph.D.s from the SUNY College of Environmental Sciences and Forestry and Syracuse University. He came to Cornell as professor in 1987, following appointments on the faculty of the University of Ottawa and as visiting scientist with the IBM Research Division at San José. He has established himself as a world-renowned polymer chemist. Fréchet is the architect and principal motivator of the Polymer Outreach Program at Cornell, which has propelled polymer chemistry to new and higher levels of prominence. He also has brought great visibility and exceptional productivity to the Materials Science Center. Through several collaborations,

Fréchet also is heavily involved in the Cornell Nanofabrication Center. Fréchet has taught the department's largest undergraduate organic chemistry lecture course for the past few years, with recent enrollment upwards of 650 students.

McLafferty is a highly distinguished analytical chemist with well over 400 publications, memberships in the National Academy of Sciences and the American Academy of Arts and Sciences and numerous prestigious awards in chemistry, including the Sir J.J. Thomson Medal, the University of Naples Gold Medal and the Robert Boyle Medal in Analytical Chemistry. He earned his Ph.D. at Cornell in 1950, following distinguished service in the U.S. Army. After postdoctoral work at the University of Iowa and service as director of Dow Chemical's Eastern Research Lab, he became professor of chemistry at Purdue in 1964 and came to Cornell as professor in 1968. Although he retired as professor emeritus in 1991, his record only hints at his recent activity, with publications, memberships, awards and editorial and advisory service. McLafferty, in emeritus status, and Fréchet will share the honor as holders of the Debye professorship.

Kaushik Basu, professor in the Department of Economics, College of Arts and Sciences, as the Carl Marks Professor in International Studies.



Basu

The Carl Marks Professorship in International Studies, established in 1968, was made possible by a joint gift from Robert S. and Marjorie Marks Boas of Great Neck, N.Y., and the Class of 1945. The chair honors the memory of Carl Marks, who founded the well-known international investment firm that bears his name. In addition to his business activities, Marks was a philanthropist whose benefactions are carried on through the Carl Marks Foundation in the areas of education, health and welfare.

Basu, who joined the faculty as professor in 1994, is generally regarded as the leading development economist of his generation. His contributions range from the economics of development to the theory of games, from the economics of industrial organization to the theory of individual and social choice, from topics in public and international finance to the economic theory of agrarian institutions. A prolific researcher who is equally at home writing scholarly papers in mainstream academic journals or popular articles in daily newspapers, he is the author of five books and an editor of six others, and he has published more than 90 papers over a 20-year period. Basu's graduate courses on development economics and on the theory of industrial organization have quickly become two of the most popular courses with graduate students in economics. He has designed a new graduate course on Topics

Continued on page 5

Departments asked to participate in Cost Reduction Awards program

Frederick Rogers, Cornell senior vice president and chief financial officer, is asking departments to participate in the university's annual Cost Reduction Awards program. The program is designed to recognize achievements in improving the quality and reducing the cost of university programs and services. Cornell awards will range in value from \$100 to \$500 and will be given directly to the department. Use of the money is at the discretion of department managers, but they are asked to share the award with the originator(s).

Select winners in the Cornell program will be forwarded to the National Association of College and University Business Officers (NACUBO)/Barnes & Nobles 1997 Higher Education Awards Program. Winners in the NACUBO program receive a cash award ranging from \$1,000 to \$10,000 as well as recognition at the NACUBO Annual Meeting and in NACUBO publications.

Cornell's program is structured in the same way as the NACUBO program, and for 1997 there are three award categories: the Management Achievement Award, which recognizes initiatives to improve the quality of programs and services; the Process Improvement Award, which recognizes process improvements through re-engineering, re-

design, or restructuring; and the Resource Enhancement Award which rewards initiatives that reduce costs, increase revenues or improve productivity. The deadline for the completion of application materials for all award categories is Nov. 15, 1996. Please note that applications to NACUBO must reflect programs that have been in place for at least 12 months. However, proposals related to Project 2000 or other initiatives that may not have been in place for a full year will still be considered for Cornell recognition.

Management Achievement Award. Departments, teams or units who have undertaken an innovative project focusing on improving program or service quality are encouraged to apply for the Management Achievement Award. This award will recognize total quality management programs, organizational restructuring, streamlining or consolidating administrative and business processes, and academic and other management efforts to improve service quality. Applications will be evaluated on the basis of the quality system approach, deployment and results. Baldrige Quality Management criteria for education have been incorporated

into the evaluation criteria of this category.

Process Improvement Award. Departments, teams or units who have undertaken process improvement initiatives through re-engineering, redesign, or restructuring are encouraged to apply for the Process Improvement Award. Initiatives in this award category can be specific programs, projects or activities. This award recognizes such factors as reduction of cycle time, process simplification, improvement in productivity and enhanced customer service and satisfaction.

Resource Enhancement Award. Departments, teams or units who have undertaken specific programs, projects or activities that reduce costs, significantly enhance revenues using nontraditional approaches, or improve productivity or customer service are encouraged to submit an application for the Resource Enhancement Award. The Resource Enhancement Award recognizes factors such as originality, portability, process documentation of resource enhancements, results and quality of application.

Material outlining the judging criteria and how to apply, as well as application forms, are available from Robin Yager, 317 Day Hall, 255-5711, <rmyl@cornell.edu>.

Supervisors are trained in proper responses to sexual harassment issues

By Jacquie Powers

Find out the facts. Talk to the people involved. Don't assume you know what's going on. Provide support.

These are some of the initial steps 27 Cornell supervisors were instructed to take in dealing with situations in the workplace involving possible sexual harassment. The workshop held Sept. 20, "Sexual Harassment in the Workplace: An Interactive Workshop for Supervisors and Administrative Managers," is one of an ongoing series presented for supervisors and employees twice a year, in the fall and spring.

Presented by the university's Office of Equal Opportunity (OEO) and the Cornell Interactive Theatre Ensemble (CITE), the workshop used role playing and lectures to provide participants with techniques and information on laws and policy that they need to respond appropriately and sensitively to concerns of sexual harassment that arise in their units.

During the first third of the three-hour session, Beatrice Biebuyck, OEO assistant director—gender equity, explained the legal background, including federal laws, for Cornell's new, universitywide sexual harassment policy as well as some examples of conduct that might be considered sexual harassment.

The new policy defines sexual harassment as: "Unwelcome sexual advances, requests for sexual favors, or other verbal or physical conduct or written communication of a sexual nature . . . when:

1) submission to such conduct is made either explicitly or implicitly a term or condition of employment or academic standing; or

2) submission to or rejection of such conduct is used as the basis for employment or academic decisions affecting such individual; or

3) such conduct has the purpose or effect of unreasonably interfering with an individual's work, academic performance or participation in extracurricular activities or creating an intimidating, hostile, or offensive working or learning environment."

Participants were told it is the responsibility of supervisors, who are considered agents of the university, to take reasonable steps to end and prevent sexual harassment if they know of it or have reason to suspect it has taken place.

That's easier said than done, they learned. In the second part of the session, CITE presented a scenario in which a



Robert Barker/University Photography
Beatrice Biebuyck, left, assistant director—gender equity in the Office of Equal Opportunity, listens to Joanne Wimer, center, managing editor in Publication Services, while Cynthia Telage, administrative manager at CIIFAD, and others look on during a Sept. 20 workshop on sexual harassment in the workplace.

supervisor standing out of sight in a hallway sees and hears an encounter between an employee and her supervisor that appears to have signs of sexual harassment. The employee walks away from the encounter clearly upset.

Next, the participants were divided into four groups, each of which discussed the challenges and opportunities stemming from the encounter they had seen. They also were asked to create a role play in which one person in the group was the unseen supervisor who had to meet with either the employee or her supervisor, minutes before leaving town for two weeks. That's when the real fun started, with laughter and suggestions flying from the participants viewing the role-playing.

Brendan O'Brien, associate director of the International Students and Scholars Office, drew both good-natured laughs and suggestions when he stumbled and broke from his role to say, "Wait, I don't want to say that" in the first role-play of the day.

O'Brien said if there's one thing he learned from the session, it's to "think before you speak."

He added, "My mind was buzzing when I left. It was thought-provoking, and it was helpful to have the chance to deal with those kinds of situations when you can be critiqued. Those are sensitive topics, and it's good to be able to make mistakes — which I obviously did — where you can learn from them."

Others agreed that the workshop was valuable.

"This heightened my awareness and caused me to think about my style as a supervisor in dealing with employee concerns," said Stephen Philip Johnson, executive director of government affairs. "It was extremely well done. Because it was done through interactive theater, it allowed more points to be made than perhaps otherwise would be the case in a straight lecture format. People were really engaged and involved, because the style of the presentation was so good."

Endowed professorships *continued from page 4*

in Political Economy, has been in charge of the Development Economics workshop and has participated actively in the South Asia Program. He succeeds Jaroslav Vanek in the professorship.

Francis J. DiSalvo Jr., professor in the Department of Chemistry, College of Arts and Sciences, as the John A. Newman Professor of Physical Science.

The John A. Newman Professorship of Physical Science was established by Floyd R. Newman

'12 in honor of his son, John A. Newman. Floyd Newman served Cornell as a member of the Board of Trustees from 1951 to 1958 and as a member of the Cornell University Council. He was one of the first members of the Tower Club, and he was named a Presidential Councillor, the university's highest honor. He co-founded the Allied Oil Company in 1925. In 1948 when Allied merged with Ashland Oil and Refining Co., he became a director of Ashland.

DiSalvo has an international reputation in the field of materials science. Having earned the B.S. degree from M.I.T. and the Ph.D. from Stanford, he came to Cornell after 15 years at AT&T Bell Laboratories, where he was the leader of three separate departments: chemical physics (1978-81), solid state chemistry (1981-83) and solid state and physics of materials (1983-86), attesting to his ability to work effectively across a broad range of scientific fields. His publication record further emphasizes his standing, with over 250 publications in refereed journals and five patents concerning rechargeable lithium batteries. He has served on the editorial board or as a reviewer for a

number of journals. He succeeds Roald Hoffmann in the professorship.

Roald Hoffmann, the John A. Newman Professor of Physical Science in the Department of Chemistry, College of Arts and Sciences, as the first Frank H.T. Rhodes Professor in Humane Letters. He will relinquish the John A. Newman Professorship of Physical Science.

The Frank H.T. Rhodes Professorship in Humane Letters was established in honor of Frank H.T.

Rhodes, president of Cornell from 1977 to 1995, who served as an eloquent spokesperson for the ideal that the university provide a place for study and scholarship, for education and for addressing the critical problems that confront humankind.

Hoffmann is a world-renowned chemist and Nobel laureate. With a B.A. from Columbia in 1958 and the Ph.D. from Harvard in 1962, he joined the faculty in 1965 as associate professor. He was promoted to full professor in 1968 and elected the John A. Newman Professor of Physical Sciences in 1974. Hoffmann is the recipient of numerous honors, including over 20 honorary degrees. In 1981 he received the Nobel Prize in chemistry.

Hoffmann's unique contribution to chemistry is characterized by a blend of computations stimulated by experiment and the construction of generalized models, and of frameworks for understanding. In more than 380 scientific articles and two books he has taught the chemical community new and useful ways to look at the geometry and reactivity of molecules, from organic through inorganic to infinitely extended structures. He has participated in the production of a television course

about chemistry, "The World of Chemistry." He also has written popular and scholarly articles on science and other subjects. His poetry has appeared in various literary magazines, and two collections, titled *The Metamict State* (1987) and *Gaps and Verges* (1990), were published by the University of Central Florida Press. Hoffmann has taught primarily undergraduates since his arrival at the university, and almost every year since 1966 has taught first-year general chemistry. He also has taught chemistry courses to non-scientists and graduate courses in bonding theory and quantum mechanics.

David Easley, professor in the Department of Economics, College of Arts and Sciences, as the Henry Scarborough Professor of Social Science.

The Henry Scarborough Professorship of Social Science, established in 1965, was made possible by a gift from Henry Scarborough's wife in memory of her husband. Scarborough, a Chicago insurance broker, died in 1962. He attended Cornell for two years and was a member of the Class of 1911. Scarborough was the president of Scarborough & Company, an insurance consulting firm. At the time of his death, he was considered to be a pioneer in the banking insurance field.

Easley is one of the leading figures in economic theory, specializing in the areas of rational expectations equilibrium and optimal learning. He came to the faculty in 1979, was awarded tenure in 1984, and was promoted to professor in 1989. Easley served as chair of the department from 1987 to 1993 and is currently director of the Center for Analytic Economics. He has served on

countless junior and senior recruiting committees and committees to restructure the graduate as well as the undergraduate programs in economics. Easley is equally at home teaching Principles of Economics to freshmen, rigorous intermediate microeconomic theory to economics majors, or advanced graduate courses on the economics of information. He will succeed Nicholas Kiefer in the professorship.

Robert A. Hillman, professor of law and associate dean for academic affairs in the Law School, as the Edwin H. Woodruff Professor of Law.

The Edwin H. Woodruff Professorship of Law was established in 1946 with gifts from friends and from the estate of Edwin H. Woodruff, former dean of the Cornell Law School.

Hillman came to Cornell as a professor with indefinite tenure in 1982, after having been tenured at the University of Iowa College of Law. He is a 1972 graduate of the Cornell Law School. He became the associate dean in 1990. He is an excellent Socratic teacher and a widely published scholar in the field of contracts and commercial law. He has made a particularly important contribution in evaluating and synthesizing the various theories of contract law. In the area of commercial law, he has identified and discussed the equitable principles that supplement the commercial code, specifically in *Common Law and Equity under the Uniform Commercial Code* (with J. McDonnell and S. Nickles, 1986). Hillman will be the fifth holder of the chair, succeeding Ernest F. Roberts Jr., who retired on June 30.



DiSalvo



Hoffmann



Easley



Hillman

Campus push helps voters take that first step – registering

By Maeve Reston '99

With Election Day – Nov. 5 – creeping up, campus efforts to get-out-the-vote are fully underway.

Many campus organizations, including the Dean of Students Office, the Student Assembly, Cornell Democrats and others are pooling their efforts to help students take that first step toward voting – registering before New York's Oct. 11 deadline.

In an effort to get students started, voter registration tables have been set up in Willard Straight Hall, Robert Purcell Community Center, Noyes Community Center and at other locations on campus during September. The Student Assembly passed a resolution to send out a mass e-mailing reminding students of the Oct. 11 registration deadline. Volunteers also have gone door-to-door in residence halls and to Collegetown apartments offering voter registration cards. And the Dean of Students Office has had registration cards mailed to every eligible student registered at the university.

"Our goal is to make sure that through all these means, every student on this campus has the information they need to register to vote," said Joel Seligman, director of campus information and visitor relations.

"This is a big year," Seligman said. "There are many issues that will directly affect students."

A state statute requires that State University of New York (SUNY) campuses make voting information available to students, and Seligman said efforts at Cornell reach beyond that requirement.

"We choose to interpret that as broadly as possible and have made voter registration information available to our endowed students as well," he said.

Though college students are often politically aware, many in the 18-24 age group are not registered to vote. And according to Seligman, college-age students traditionally have among the lowest voter turnout figures of any age group.

Shary Zifchock, Tompkins County's



Yinyu Qi '99, left, stops by the voter registration information table set up by the Cornell Democrats in Willard Straight Hall on Sept. 27. At the table, from left, are Joy Johnson '00, Tuan Le MBA '98 and Aaron Tax '98.

Adriana Rovers/University Photography

Democratic Board of Elections commissioner, said the number of college students going to the polls swells during presidential election years. While it's difficult to determine the number of registered voters who are Cornell students, she said — student status isn't on the form — in 1992, the last presidential election year, Zifchock said about 5,000 registration cards from campus came in before the deadline.

"Cornell students are twice as likely to vote as Americans in general," said Brian Glanz '98, voter registration co-chairman for the Cornell Democrats. "But that is still not a

significant number. We are trying to make students aware that they can make a difference."

Students have the option of picking up generic registration forms that include information on registering in other states; or they can fill out New York voter registration cards using their in-state or campus address and vote as New York state residents.

Registration cards are easy to fill out and are available at the voter registration tables around campus. Cards are also available by mail from the Tompkins County Board of Elections — call 274-5522 — or at the Board of Elections office at 128 Buffalo St.

Election Commissioner Zifchock points out that several facts about voter registration have caused confusion among students. People who have changed their addresses since they last registered, must re-register. In addition, if a student fills out a New York registration card with her Cornell address, she automatically will be registered to vote here.

And Zifchock points out, although New York voter registration cards must come to the Board of Elections office, or be post-marked, by Oct. 11, town and city halls will have in-person voter registration available from from 2 to 9 p.m. on Oct. 12.

State Assembly candidates pay their visits



LEFT: Marty Luster, incumbent state Assemblyman from the 125th District and Democratic candidate in November, answers questions from administrators from state-supported programs at Cornell during a Sept. 27 luncheon in the Doherty Lounge of Ives Hall. CENTER: Wilson Kone, center, Republican candidate for the 125th District Assembly seat, talks with Daryl Lund, left, dean of the College of Agriculture and Life Sciences, and Henrik



N. Dullea, vice president for university relations, prior to a Sept. 18 luncheon in the Doherty Lounge. RIGHT: Francille Firebaugh, dean of the College of Human Ecology, poses a question during the Sept. 27 luncheon. Each of the candidates for state and federal offices in districts that include the Cornell campus have been invited to address participants and answer questions at the informal luncheons before the election.

Adriana Rovers/University Photography

Vidler named dean of Architecture, Art and Planning continued from page 1

many fields, such as urban design, urban planning, architectural history, historic preservation and landscape architecture.

Before joining UCLA in 1993, Vidler taught for 27 years at Princeton University, where from 1990 to 1993 he served as the William R. Kenan Jr. Chair of Architecture. While at Princeton, he also chaired the Ph.D. Program in the School of Architecture (1973-93), and directed and chaired the European

Cultural Studies Program (1980-87). Both at Princeton and UCLA, Vidler served on a variety of university committees and panels.

His honors include the American Institute of Architects' International Architecture Book Award, for *Claude-Nicolas Ledoux: Architecture and Social Reform at the End of the Ancien Regime* (1991) and the Society of Architectural Historians' Alice Davis Hitchcock Book Award for *Claude-*

Nicolas Ledoux (1991). Vidler has received fellowships and grants from the Getty Center for the History of Art and the Humanities, the National Endowment for the Humanities and the John Simon Guggenheim Memorial Foundation, among others.

Vidler's professional affiliations include service as a director of the Society of Architectural Historians and as a Fellow of the Institute for Architecture and Urban Studies

in New York. He also serves as a consultant for The End of the Century Exhibition of Modern Architecture at the Museum of Contemporary Art in Los Angeles.

In addition to his award-winning work on *Claude-Nicolas Ledoux*, Vidler is the author of *The Writing of the Walls: Architectural Theory in the Late Enlightenment* and *The Architectural Uncanny: Essays in the Modern Unhomely* (MIT Press, 1992).

CORNELL RESEARCH

Study shows millipede's 'barbed grappling hooks' thwart predators

By Roger Segelken

Microscopic examination has revealed the defense secret of a tiny millipede that was entangling its enemies millions of years before porcupines and Velcro came along.

As reported in the Oct. 1 *Proceedings of the National Academy of Sciences* by Thomas Eisner, Maria Eisner and Mark Deyrup, the millipede *Polyxenus fasciculatus* confronts ants and other attackers with its rear. Located there are brush-like tufts of detachable bristles with a horrible surprise for predators: multi-pronged grappling hooks at the bristle ends to latch onto hairlike setae of the attacking insects and barbs along the shafts to link the bristles in an often-inescapable mesh.

"The ant's first reaction to this insult is to preen. That's what it would do to get rid of a defensive chemical," said Thomas Eisner, the Schurman Professor of Biology at Cornell and a specialist in the chemical ecology of insects. "But preening only makes matters worse for the ant. This is a mechanical defense, a cross between the quills of the porcupine and the hooks and loops of Velcro — a very unforgiving Velcro. The more the ant preens and struggles, the more entangled it becomes."

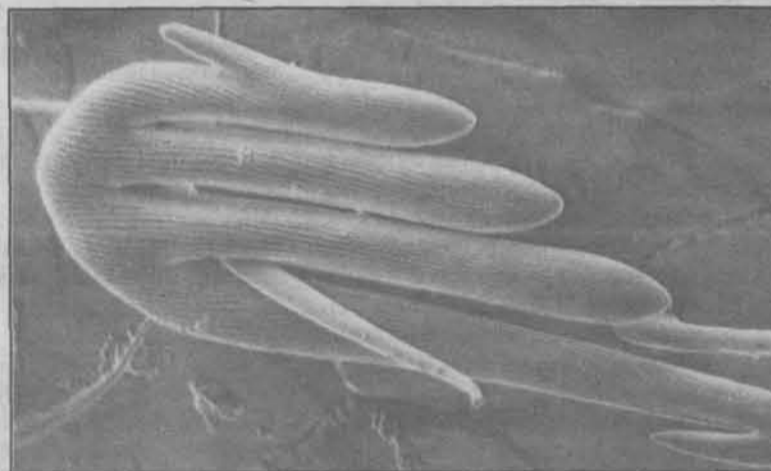
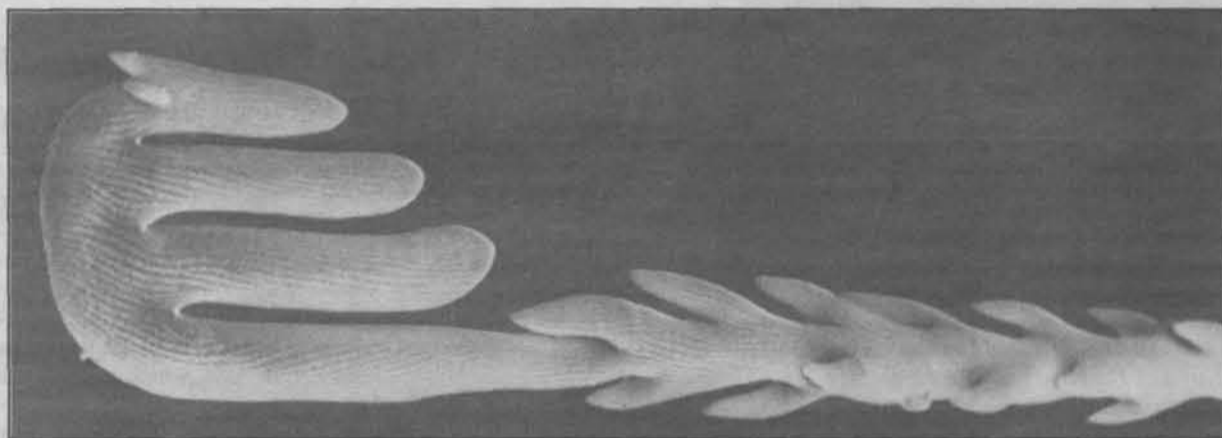
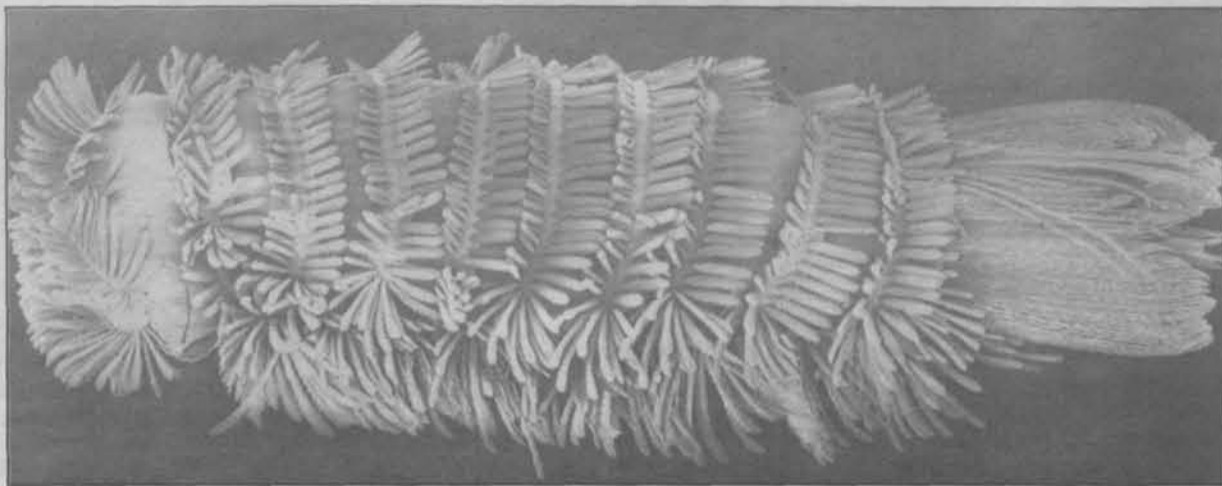
In the past, Eisner and his colleagues at the Cornell Institute for Research in Chemical Ecology (CIRCE) have successfully explained the chemical defense strategies of dozens of insects, millipedes and other arthropods. He was puzzled at first to learn that *P. fasciculatus* had survived so long without chemistry on its side. "These may be among the oldest millipedes on Earth, dating to the Silurian period when animals first colonized the land," he said. "One defensive strategy is to change your habitat, but *P. fasciculatus* haven't; they have held their own among some very persistent predators, particularly ants."

When Deyrup, a staff scientist at the Archbold Biological Station in Lake Placid, Fla., found *P. fasciculatus* millipedes under the loose bark of slash pines as well as *Crematogaster ashmeadi* ants foraging nearby, Eisner enlisted the help of a highly skilled scanning electron microscopist — his wife. Together with Maria Eisner, a research associate at CIRCE, he brought ants and millipedes face to face. When the millipedes turned tail, splayed the bristle tufts and briefly stroked the attacking ants, it was scanning electron microscopy (SEM) that revealed the mechanics of a near-perfect defense.

The bristles — so minute that standard light microscopes at lower magnification can barely resolve them — turned out to be complex structures under SEM examination and photography. Tiny barbs, sharper than any fish hook, cover the shafts of the bristles. At each bristle end is a three-pronged hook to clench the body hairs of other insects. Maria Eisner's SEM images show the perplexed ants, immobilized by an interlocking mesh of millipede bristles.

Worse yet (for the predators), the millipedes have enough bristles to repulse several attacks. And if *P. fasciculatus* are anything like a closely related millipede species, *P. lagurus*, their bristles are renewable when they molt.

Detachables seem like a perfect defense, and they are — almost, Thomas Eisner noted. But there is one Brazilian ant in the *Thaumatomyrmex* genus that is known to cope with bristle millipedes by grabbing them



Top: Scanning electron micrograph of the porcupine-Velcro millipede, *Polyxenus fasciculatus*, shows tufts of detachable grappling hook bristles extending from its rear (at right). Middle: The business end of one detachable bristle from the millipede shows the multi-pronged grappling hook and barbs along the shaft. Bottom left: The hair-like seta of an ant is caught in the millipede bristle's grappling hook. Bottom right: This ant died after becoming immobilized by interlocking bristles from the millipede.

Maria Eisner, Cornell Institute for Research in Chemical Ecology

with its specialized mandibles, killing the prey with a sting, stripping them of their bristles, before finally eating the millipedes.

"That's life in the natural world," Eisner commented. "For every strategy, no matter how 'perfect,' there is a counter-strategy."

Field trip discovery could result in a new source of life-saving drug

By Roger Segelken

Until Cornell undergraduate students on a mycology field trip found mysterious fungal "fruiting bodies" rising from an eviscerated beetle grub, little was known of the mold that produces a life-saving pharmaceutical for organ transplantation — the immunosuppressant cyclosporin.

Now, *Tolypocladium inflatum*, the white mold from Norway that makes cyclosporin and other biologically important compounds, is out of the closet, so to speak, as reported in the September-October issue of the journal *Mycologia*. In its sexual state, *T. inflatum* is actually *Cordyceps subsessilis*, an extremely rare fungus that has been reported only five or six times before.

Knowing the true family history of *T.*

inflatum/*C. subsessilis* will help target the search for other nature-based pharmaceuticals, according to Thomas Eisner, the Cornell biologist whose Institute for Research in Chemical Ecology (CIRCE) will send "chemical prospecting" teams into the world's first temperate zone biodiversity preserve, less than a mile from the woods where students found the fungal fruiting bodies. One close relative of *C. subsessilis* already is known to Chinese athletes as the performance-enhancing "caterpillar fungus."

"There are so many molds that we don't know the life cycle of. All the cyclosporin in the world — for hundreds of thousands of transplant patients who need anti-rejection drugs — has been made from *Tolypocladium inflatum* cultures without

Continued on page 8



Kathie Hodge, a fourth-year Ph.D. candidate in plant pathology, examines a *Schizophyllum commune* mushroom. Hodge determined that students collecting samples at Michigan Hollow State Forest in Danby had found the rarely seen *C. subsessilis*, the sexual state of a fungus that makes cyclosporin and other biologically important compounds.

Adriana Rovers/University Photography

Fall Arts Fest is on display all this month

Without art, the crudeness of reality would make the world unbearable.

— George Bernard Shaw

October is the month to discover the diversity of the arts at Cornell. The Cornell Council for the Arts and several campus performing and visual arts departments and programs are making a concerted effort to showcase the arts at the fourth annual Fall Arts Festival. Performances, exhibitions, concerts, films, readings and a design show on the Ag Quad, "Beyond Fence and Focus," are all featured this month.

"The Fall Arts Festival celebrates the eclectic arts programs and endeavors that make Cornell's quality of life so rich," said Anna Geske, executive director of the Council for the Arts. "The creative and performing arts offer something for everyone and every taste, whether it be classical or new music, international films, readings of new work, compelling drama or intellectual discourse."

This weekend, Oct. 4 and 5, brings some of the nation's most respected critics, architects and artists to campus as the College of Architecture, Art and Planning celebrates its 150th anniversary. Cornell alumnus Richard Meier, who designed the Getty Center, a \$770 million arts and cultural complex going up in the Santa Monica Mountains outside Los Angeles, will be joined by critics Arthur Danto of *The Nation* and Herbert Muschamp of *The New York Times*, painter Frank Stella, educator Anne Markusen and architect Henry Cobb in an assessment of the art professions and the nation's cultural climate. (For lecture times and locations, call the college at 255-7510.)

Another major event on the Cornell arts calendar this month is the Oct. 26 tribute to Pulitzer Prize-winning composer Karel Husa, on the occasion of his 75th birthday. The Cornell Contemporary Directions Ensemble will perform in Barnes Hall under the direction of Mark Scatterday. Husa, who joined the Cornell faculty in 1954, won the Pulitzer for *String Quartet No. 3* (1969).

Fall Arts Festival events vary, from readings at A.D. White House by alumni authors — poet Nancy Couto, M.F.A. '80, on Oct. 10 and fiction writer Peter Landesman M.F.A. '92 on Oct. 24 — to concerts in Bailey Hall featuring university organist Annette Richards, Oct. 10, and baritone Thomas Hampson, Oct. 17, as part of the Cornell Concert Series. Classical Indian dance and music is presented in two concerts — Odissi dance on Oct. 3 and a flute concert on Oct. 9 in Barnes Hall.

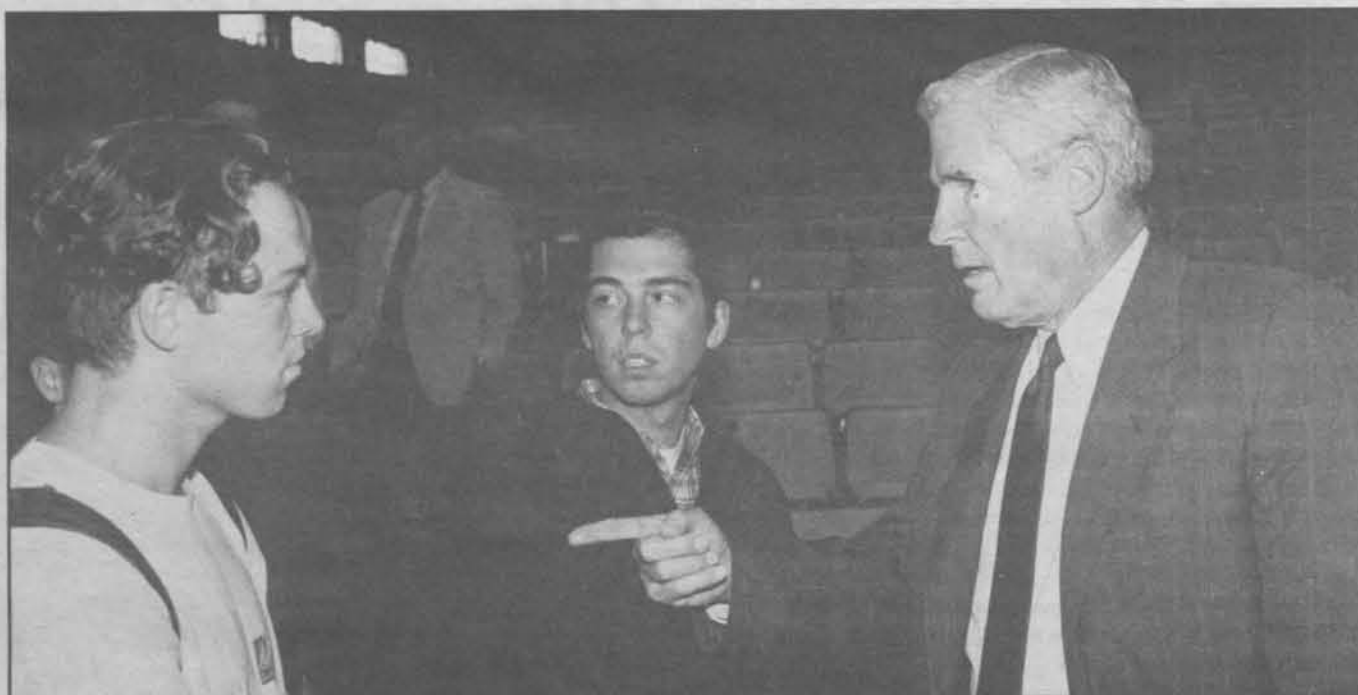
An exhibition at the Herbert F. Johnson Museum of Art features the work of three alumni artists — John Ahern, Louise Lawler and Susan Rothenberg. Among numerous other exhibits on display at the museum are *Prints by Frank Stella*, the Cornell Art Department Faculty show; *Winslow Homer's America*; and *Two in Montana*, featuring the work of sculptors Deborah Butterfield and John Buck.

Moving outdoors, "Beyond Fence and Focus," a student project in its fourth year, features the collaborative efforts of Professor Jan Jennings' students in Design and Environmental Analysis and Professor Paula Horrigan's students in Landscape Architecture. The work, which explores the concepts of space, consists of constructions displayed through Oct. 10 on the Ag Quad. Public review of the project is set for Thursday, Oct. 10, from 4:30 to 6 p.m.

On Oct. 24, *All in the Timing: Six One-Act Comedies* by David Ives, directed by Cornell senior Neal Freeman, opens at the Center for Theatre Arts.

The Council for the Arts' Fall Arts Festival is funded in part by the Bruce and Judith Eissner Endowment for the Arts and The Rose Goldsen Fund: Images and Society.

To receive a poster or more information, contact the Council for the Arts at 341 Caldwell Hall or call 255-7161.



Charles Harrington/University Photography

Cornell alumnus Charles F. Knight, right, president, chairman and CEO of Emerson Electric Co., speaks to Igor Desyatnikov '97, left, and Ahmet Senoglu '97 after Knight's lecture before a packed house in Schwartz Auditorium, Rockefeller Hall, on Sept. 26.

Emerson CEO: Corporate restructuring era is over

By Darryl Geddes

American businesses need to eschew the restructuring mindset, characterized by cutbacks and "hunkering down," and adopt one of revitalization, with a focus on finding new markets for new products, said the chief executive officer of Emerson Electric Co. in a campus lecture Sept. 26.

Speaking before a full house of several hundred university officials, students and guests in Rockefeller Hall's Schwartz Auditorium, Charles F. Knight, Cornell alumnus and former member of the Cornell Board of Trustees, said the painful restructuring efforts that have slashed work forces were needed in order for American companies to remain competitive in a global marketplace. But restructuring is yesterday's news, he said.

"Now we must look beyond cutbacks and reinvent our business," said Knight, Cornell's 1996 Robert S. Hatfield Fellow in Economic Education.

Knight, who also serves as Emerson's president and chairman, admitted he erred by writing in the company's 1990 annual report that restructuring was "behind us." "It wasn't," he said. "We spent \$300 million over the next five years on re-

structuring; it consumed every moment of management."

Today, Knight said, Emerson has changed its mindset from restructuring and cost reduction to growth. Last year, the company invested more than \$350 million in new product development.

He said for American corporations to be successful, they must have a presence in Asia, which he contends has now become the world's economic center, and they must implement information technology into the corporate structure.

Knight confessed to being fearful about what changes the new technology would bring to Emerson.

"Rather than thinking about what good can come from this, I was wondering how the information technology would impact our management systems," he said. "But now we are examining ways this technology can be used to our benefit. Already, I think this technology is creating an atmosphere in which we are going to get more ideas."

Based in St. Louis, Emerson Electric Co. ranks 128 in the Fortune 500 and manufactures industrial products such as air-conditioning and refrigerator compressors, power transmission equipment, and industrial motors and drives in more

than 250 plants worldwide.

In 1973 at age 37, Knight was elected chief executive officer of Emerson, making him, at the time, the youngest CEO of any billion-dollar U.S. corporation.

Knight, a member of the football team during his undergraduate years, earned a bachelor's degree in mechanical engineering and an MBA from Cornell in 1958 and 1959, respectively. He served on the Board of Trustees from 1981 to 1986.

Before his lecture, Knight met with students in an undergraduate economics class and joined a discussion session with the Johnson School Semester in Manufacturing. He also toured the Emerson Manufacturing Teaching Laboratory in the College of Engineering New Design Studio.

The Hatfield Fellow is the highest honor Cornell bestows on outstanding individuals from the corporate sector. The Hatfield Fund for Economic Education was established by the Continental Group Foundation to honor former Continental Chairman Robert S. Hatfield. Since the program's inception in 1981, Hatfield Fellows have included the CEOs of such corporations as AlliedSignal, Corning, Procter & Gamble and Hewlett-Packard.

Field trip discovery *continued from page 7*

that mold ever reaching the sexual state," said Kathie T. Hodge, the Cornell graduate student of systematic mycology who identified the New York fungus for what it is. "*T. inflatum* is commonly found in soils, but it does not make the sexual state without very special conditions — until it is on its favorite host — which seems to be the dung beetle."

For Professor of Mycology Richard P. Korf's "Field Mycology 319" class one fall afternoon in 1994, the assignment was simple: Pick up everything interesting-looking in Michigan Hollow State Forest in Danby and wrap the fungi in waxed paper. They were to return to the Cornell lab where graduate teaching assistant Hodge would try to help identify things that anyone but a mycologist — or a student of the subject — would consider extremely disgusting.

Indeed, the yellow, finger-like fruiting bodies growing out of the backs of two grubs from Michigan Hollow were enough to give all fungi a bad name, even before they received a name of their own. For one thing, the fungus had consumed so much of the grub that entomological identification was impossible without the help of a specialist. (The unfortunate grubs eventually were determined, by Cornell Associate Professor of Entomology James K. Lieberr, to be the larvae of a type of scarab beetle that

feeds on organic soils and dung, although there was not enough grub left to exactly identify the species.)

By studying the physical appearance of the fruiting bodies and consulting with Richard A. Humber, a research entomologist at the U.S. Department of Agriculture's Plant Protection Research Unit in Ithaca as well as an adjunct associate professor in Cornell's Department of Plant Pathology, Hodge determined that the students had collected the rarely seen *C. subsessilis*. Then she germinated spores from the fruiting bodies and grew the same white mold that produces cyclosporin. The identity was confirmed when Stuart B. Krasnoff, an entomologist in the Ithaca USDA lab, detected the presence of efrapetins, the "signature" chemical compounds that are produced only by *Tolyocladium* species.

"This is an incredible find," said Eisner, the Jacob Gould Schurman Professor of Biology and one of the founders of the scientific field of chemical ecology. "This tells us to look at other, related species of this fungus for potentially useful compounds. And we've only begun to look," he said, noting that an estimated 90 percent or more of the world's fungi have yet to be identified, scientifically cataloged and examined. (One that is better understood, because its

use became controversial in international track and field competition, is *dong chong xia cao*, better known as the caterpillar fungus. Tonics made from the fungus, which is traditionally sold in small bundles of fungus-infected caterpillars, reportedly are responsible for record performances by some Chinese athletes. The Chinese caterpillar fungus is *Cordyceps sinensis*.)

In the meantime, spores from the properly identified Michigan Hollow fungus are sleepless in Ithaca, chilled to dormancy by liquid nitrogen in the Agricultural Research Service (ARS) Collection of Entomopathogenic Fungi. They are part of the world's largest collection of fungi that kill insects. Hodge, now a fourth-year Ph.D. student who is working as a volunteer with the Finger Lakes Land Trust, is trying to identify as many fungi as possible in the Temperate Zone Biodiversity Preserve in West Danby.

But who gets credit for picking up the beetle grubs with the elusive *C. subsessilis*?

"No one knows, really," Hodge said. "We were just collecting fungi as fast as we saw them, and no one remembers getting this one."

So Hodge added a special acknowledgment to her *Mycologia* article: "We also thank students in field mycology classes everywhere for picking up interesting things."

Computer lore: 'CU is wired' led Microsoft to reverse course

By Bill Steele

"Cornell is wired."

Well, we knew that. But ostensibly Bill Gates, the legendary CEO of Microsoft Corporation, didn't, until a Cornell alum informed him. According to *Business Week* (July 15, 1996), Gates had pretty much left the Internet out of Microsoft's corporate strategy until Steve Sinofsky '87 sent him an e-mail message with that terse announcement. As a result, the magazine says, Microsoft "reversed course," building Internet connectivity into Windows 95 and creating its own presence on the World Wide Web.

Sinofsky, a member of Gates' staff, said recently he doesn't want to talk about that story anymore, though. "I've had my 15 minutes of fame," he said. He added that since the *Business Week* article appeared he's been inundated by calls from Cornellians who either want a job with Microsoft or want to sell the company some new product.

Some people on campus remember his fateful visit.

It was in February 1994. Sinofsky was in Ithaca recruiting for Microsoft and, as you might expect, got snowed in. He decided to spend some time touring the campus and finding out how computers were being used. This was, in fact, part of his job: He had been assigned to serve for that year as Gates' "technology scout."

He visited the libraries and talked with students, but in particular he spent almost a full day in the office of Steve Worona, assistant to the vice president for information technologies.

"He happened to drop into the middle of a CU-SeeMe conference with Yvonne Andres of Global Schoolhouse," Worona recalls. (Global Schoolhouse is a National Science Foundation program that links high school and junior high students all over the world via CU-SeeMe videoconferencing.) "He watched and participated. I showed him Bear Access and Just the Facts, with which students do electronically all the things they used to have to line up before clerks to do. I showed him the Web and gopher and explained how everybody got a netID, permanently assigned, with the possibility they might continue to use it after graduation."

This technology wasn't completely new to Sinofsky. As a dual major in chemistry and computer science, he had had his own

'Cornell's been uniformly and universally aggressive about computing for a long time.'

— Steve Sinofsky '87

Cornell netID. He had worked for CIT, apparently helping out with the earliest incarnation of CUINFO, when it had operated as a bulletin board. CUINFO was then only a year old, and it was the first campus-wide information system in the world.

"In 1983 everybody got a mail account," Sinofsky recalled. "Half the writing classes were using computers."

He also knew that Cornell was a leader in the field: "Cornell's been uniformly and universally aggressive about computing for a long time," he said. "It wasn't usual then for undergrads to have e-mail accounts."

But Sinofsky's orientation when he was at Cornell was definitely that of a computer insider. Working under Professor Tim Teitelbaum, he had helped to develop a "programming environment" (sort of a smart text editor for programmers). With then-graduate student Bill Pugh, he created a formatting method still known in the computer science department as the "Pugh-Sinofsky Pretty Printing Algorithm." Definitely not your average computer user.

And he wasn't prepared for the growth that had gone on since he left. "I think it's fair to say that his eyes opened and his jaw dropped," Worona said. "He had already seen, wandering through the libraries, people using computers. He hadn't really seen what they were doing."

According to *Business Week*, Sinofsky's report, and the briefing he supplied to Gates when he returned, reinforced the advice others in the company had been offering about the Internet and started a major shift in Microsoft's strategy. Not everyone believes that, however, and if it is true, Sinofsky pointed out, "It could have been Dartmouth; it could have been MIT."

But it provided Sinofsky's 15 minutes of fame. That seems only fair, since he apparently wasn't famous while he was here, at least outside of his own department.

"Steve didn't remember that I worked for him," Sinofsky admitted.

Magazine cites CIT's Lambert for computing innovations

H. David Lambert, Cornell vice-president for information technologies, has been named one of 25 "Innovative Network Technology Drivers" by *Network Computing* magazine.

"Dating back to his early work on the Internet," the magazine says, "Lambert



Lambert

has been known for pushing the edge of the technology envelope. Now he continues with interesting new technology initiatives like Cells in Frames, a method of running ATM over Ethernet networks."

This year the magazine's list represents people who are "driving technology out of the labs and into production environments," according to Patricia Schnaidt, *Network Computing*'s editor in chief. Except for Scott Bradner of Harvard University, others named by the magazine were

all from private industry, including such companies as IBM, Microsoft and Netscape.

Cells in Frames, a system being developed by Dick Cogger and Scott Brim in CIT's Advanced Technology Planning division, will enable the university's data network to carry voice and, eventually, video at far higher speeds than at present, without a heavy investment in new hardware. It will be used first to replace the existing PBX telephone system, at a large cost saving.

"It's nice to see that people who watch technology are paying attention to what's happening at universities," Cogger said, referring to the magazine's designation.

The *Network Computing* article is available online at <<http://techweb.cmp.com/nrc/713/713f2LAMBERT.html>>.

The *Chronicle* reported on Cells in Frames in its March 14, 1996, issue; the article is online at <<http://www.news.cornell.edu/Chronicles/3.14.96/phones.html>>.

Yikes!



Charles Harrington/University Photography

Jim Overton '96 takes a spin on the "gyro," one of the activities featured on the Arts Quad during "Fun in the Sun" on Sept. 28, the annual carnival sponsored by the Interfraternity Council and the Panhellenic Association.

SOUNDBITES

Here is a sampling of quotations from Cornell University faculty, students and staff that have appeared recently in the national news media:

— Crickets have to make a yes-or-no decision in a hurry, and ones that waffle become bat bait.

— Researcher **Robert Wyttenbach**, in a Reuters News Service story on Sept. 13 about his experiment on cricket perception.

— "I gasped when I saw it. I knew this wasn't a species native to North America."

— **E. Richard Hoebeke**, senior extension entomologist, in a United Press International report on the infestation of an Asian long-horned beetle in Brooklyn. He also was cited in *The New York Times* and *New York Daily News*.

— "It's both belt and suspenders. For reasons we don't understand, birds seem to want to use both of these things."

— **Charles Walcott**, professor of neurobiology and behavior, in an Associated Press story on the surprise finding that warblers need to combine two navigation systems rather than using one or the other at various times.

— "In general, memory researchers recommend that the most fruitful interview is the first interview."

— **Stephen Ceci**, the Helen L. Carr Professor of Developmental Psychology, quoted in *Newsday*.

— "Arab reservations about U.S. policy toward Iraq are compounded by an emerging sense of siege in the Arab world. In a region where international conspiracy theories remain popular in the face of local impotence,

the apparent stalemate in the Arab-Israeli conflict and rising tensions between Israel and Syria have revived fears that Israel, supported by the United States, now seeks to weaken the Arab world."

— **Shibley Telhami**, director of the Near Eastern Studies Program, in an opinion piece in *The Washington Post* on Sept. 18.

— "There's a lot of anxiety of what the future holds. Roughly half of students come from broken homes. They're aware things are adrift, and they want some kind of anchoring security."

— **Robert Johnson**, director of University Ministries, in the *Christian Science Monitor*, Sept. 6, on a rise in interest in religion and spirituality.

— "Sometimes I look back and think maybe I should have gone to a cheaper school or earned a scholarship someplace bigger. But I figured you go to the best school possible, even if you have to sacrifice financially."

— **Chad Levitt**, Big Red running back, quoted in the October 1996 *Vanity Fair*, which named him and two other Cornellians to its 1996 Ivy League All-Star Team.

— "It is the perfect solution, if it works."

— **Bernd Blosssey**, postdoctoral associate in Natural Resources, commenting on controlling purple loosestrife with beetles, quoted by the Associated Press.

— "We knew that a divorce at home tends to lower a student's grade-point average and SAT scores, so we expected a difference, but not one this large."

— **Jennifer Gerner**, professor of consumer economics, quoted by the Associated Press.

